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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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VOL. LII.

LONDON, ONTARIO, SEPTEMBER 13, 1917.

No. 1303



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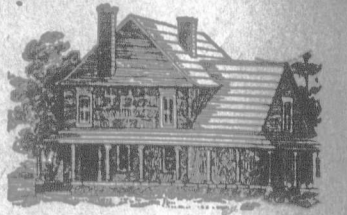
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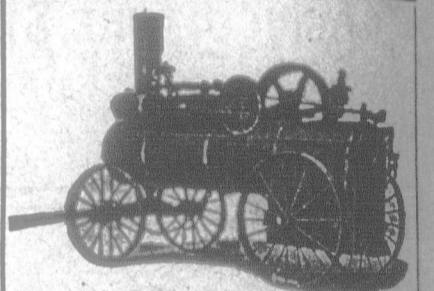
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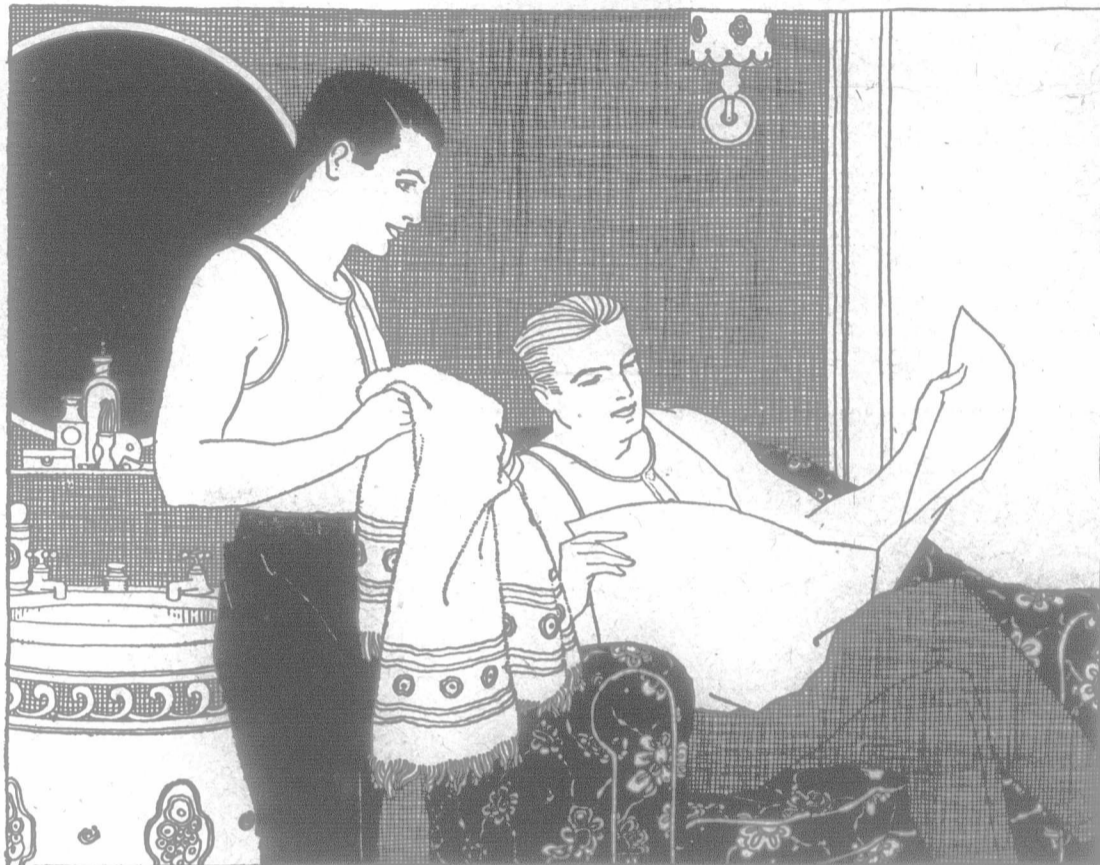
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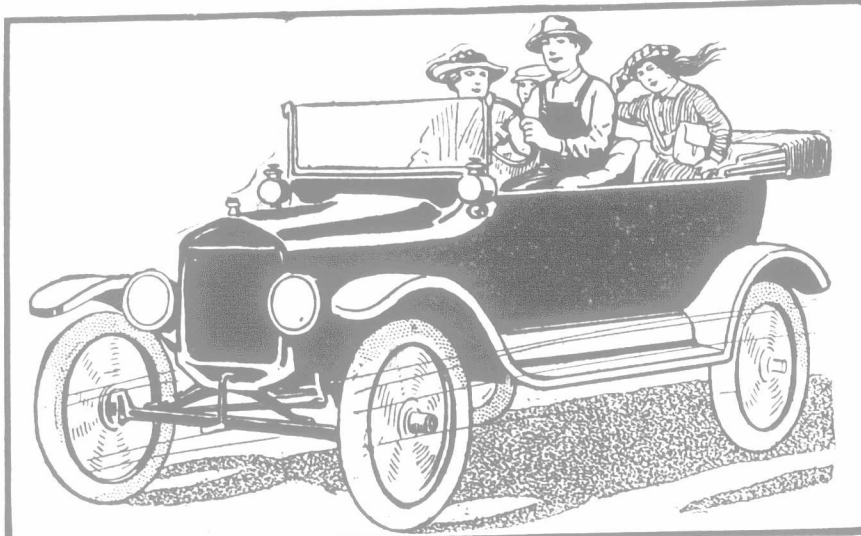
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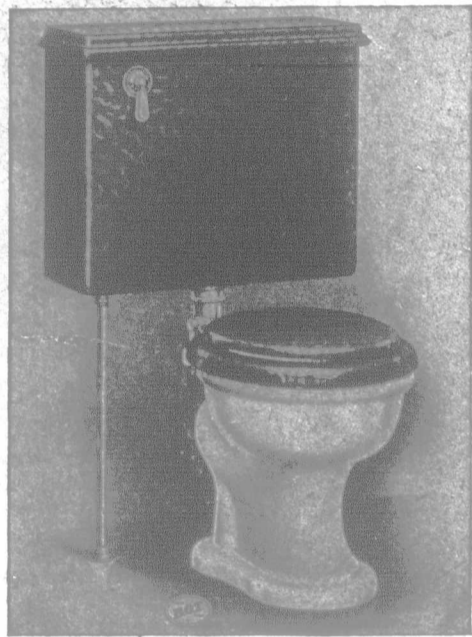
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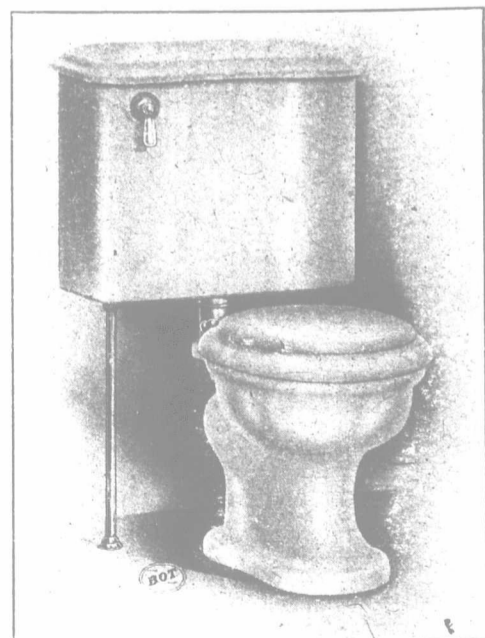
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LII.

LONDON, ONTARIO, SEPTEMBER 13, 1917.

1303

EDITORIAL.

A fair win is an honor and a fair defeat is no disgrace.

Plowing should mean more to the plowman than just "blacking it over."

Farm power is of more interest to the farmer at the fair than is the flying machine.

If harvest had not been so late more farmers would have attended the Canadian National.

A young show-man who is a good loser has a fine start on the road to success in the live-stock ring.

There is plenty of plowing to keep laid-off munitions workers busy if they are willing to go on the farms.

Every farmer should be a horse breeder. Make your work mares raise colts as well as do their share in the teams.

"They're all good ones" says the proud possessor of a choice herd of pure-breds and his pride is not without reason.

It is only a very narrow-minded man who because you do not always agree with him brands you as a "kicker".

There is still time to sow a few acres to winter wheat. Give the spring work a boost by putting in a few extra acres this fall.

Judging from the crop of oats in Ontario this year those of Scotch descent will not be compelled to go without their oatmeal porridge.

The average farmer if he figures interest on investment gets no wages; if he figures wages he gets no interest, and the boys leave the farm.

There is a difference between offering and asking for peace terms and Germany must learn this before progress toward peace can be made.

The man who knows more about your business than you do yourself is generally neglecting his own affairs while he noses into those of others.

The National Exhibition idea is more easily worked out than is National Government; but then it does not have to contend with party politicians.

Canada is fighting to protect herself against Germany. This is the main reason, after which democracy and all the rest of the reasons may be considered.

The man who brings his stock out to the fairs in prime fit this year deserves credit. Feed has been high and labor very scarce, yet where there's a will there's a way.

The head of the American Mission to Russia says Russia is sound at the core, but, says the Chicago Tribune, if the Russians don't soon check the Teutons there "won't be no core."

National Government.

There is talk of a National Government for Canada, and whether or not the whole matter fizzles out in political hot-air, the fact remains that in a crisis such as the country is now passing through all classes should be fairly and adequately represented in the Government of the country. Even in normal times legislation which would work to the ultimate good of the country is more likely to be brought down when all branches of industry are represented according to their importance. Canada at the present time should know no party, clique, or class, and at any time legislators should legislate with a view to the welfare of the nation and not for any particular trade or class. Parliaments should be composed of a representative number of men from the various industries in the country. In the past agriculture has neglected its part. Farmers have not chosen from among their number to represent them in the Houses of Parliament as they should have done. The farming industry cannot hope to get what is due it in the matter of legislation so long as rural voters are willing to elect as their representatives men of the legal profession and of industries other than farming. When it comes to National Government, if such a thing becomes a reality in Canada, in view of the importance of agriculture in this country a fair number of leaders in agricultural thought and progress should be included. At present there seems to be an amazing lack of knowledge of agriculture and its place in our national welfare, in high places. No Government can be a National Government unless all industries, all parties, all Canadians, are adequately represented.

Teacher Training in Agriculture.

In a recent issue we made the suggestion that in so far as the country boy and girl were concerned, at least, it might be well to have our school text books carry a little more of the agricultural idea worked into the reading lessons and into the mathematics, that the children of rural districts might unconsciously get a better idea of things agricultural and a higher opinion of the country as a place to live, and farming as an occupation. Along with this step, it would be a decided improvement if teachers who are fitting themselves to teach in rural schools had more agricultural training. Before the teacher can instill the proper agricultural viewpoint into the young mind, he or she must have first obtained it, and can only get it through an advanced knowledge of agriculture and agricultural conditions. It may be that the time will come when teachers for rural districts, both in public and continuation schools, will be required to take a certain term in agricultural schools or colleges. Without proper teacher-training in agriculture, it will be a difficult matter to obtain the results desired.

A Short Course in Farm Mechanics.

This is an age of wonderful development in farm implements and machinery. Farm power is a vital question with every man on the land at the present time. The work must be done, not by hand as of yore, but by the judicious use of either horse or motor-drawn machinery. The average farmer requires to be something of a mechanic and engineer in order to be most successful in his farm operations. It is an age of farm mechanics. In this connection we might say that a great deal of help might be given the young men who could avail themselves of such a course through three or four-weeks' special training in farm mechanics at an institution such as the Ontario Agricultural College. The man who is about to purchase a tractor, or a gasoline engine, would like to know as much about operating his machine as possible right from the start. He should know where to look for trouble and how to remedy it, and the same is

true of all the newer types of implements and machinery for the farm. We believe in taking the Agricultural College to the farm in so far as possible, and to accomplish this Short Courses reach the greatest number, and it is surprising what young and even older men will pick up in the way of knowledge in a very short time when expert teachers, who have practical experience at their back, are the instructors. It might be worth while for college authorities to consider short courses in farm mechanics and agricultural engineering and in fact to give them a prominent place on the college curriculum.

Price Fixing Must Not Hamper Breeding.

Live stock improvement and the condition of the live-stock business generally in any agricultural country has a vital relation to the nation's food supply. Particularly is it important in times like these that a present supply of cereals and meat is forthcoming and also that the future be safeguarded. In the neighborhood of one-third of the nation's food bill goes for meat, and when milk and other dairy products are combined with this we find that we pay more than half of our food cost for the products of the live stock of the farm. It is true that meat and dairy products may not be the most economical foods, but they are absolutely necessary in building up the highest type of civilization. These are facts very well brought out by Prof. Charles F. Curtiss, of the Iowa State College, and they apply in Canada just as well as in the United States; in fact, they apply now to all the allied nations, and, keeping them in mind, there is no wonder that the work of the Food Controllers is watched with no small degree of interest by the producers and consumers of the products of the live stock of the farm.

For a moment let us consider the value of live stock in the growing of cereal crops. Invariably we find the heaviest production of cereals on land which is carrying a goodly number of well-bred and well-fed animals. Last year when Ontario crops were very light those farmers who had kept plenty of live stock for a number of years had work for the threshing machine when some of their neighbors who had been practicing grain farming had very little to thresh. A good illustration comes from Iowa, where ten of the best grain farms of the section were compared with ten of the best live-stock farms. It was found that on the latter farms the increased yield owing to the presence of the stock was 14 bushels of corn per acre, 7 bushels of oats per acre, and one ton of hay per acre. This meant an increase of 36 per cent. of the average yield of corn, 21 per cent. of the average yield in oats, and 85 per cent. of the average yield in hay. Thus we see that while the live-stock products themselves represent more than half our food bill, the live stock is responsible for no small increase in the output of cereals from our farms.

At the present time there is a great deal of uncertainty in connection with the market for meat and dairy products, owing to the action of Food Controllers. In Great Britain the Food Controller has fixed prices on a sliding downward scale until the first of January, which will mean a decline of practically \$90 on a bullock weighing 1,200 pounds, taking the prices which prevailed shortly before this food order came in compared with those set for next January. In fact, the prices set dropped fourteen shillings per cwt. between September and January. If we read the British agricultural papers aright, the farmer can do nothing but sell off his unfinished cattle as fast as possible and a scarcity is likely to prevail later on, or from January to May if a change is not made. Another order which stops the importation into Britain of Canadian bacon is likely to have some effect on the bacon-hog trade in Canada. We have been endeavoring in this country to establish a

The Farmer's Advocate AND HOME MAGAZINE.

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uniform type of bacon hog for the British market. If that market remains closed for very long it will cause a good deal of uncertainty in the minds of breeders here. However, we believe that the order will be only temporary in effect and that the safest policy is to go on breeding the bacon hog. We are told also by our Food Controller that the setting of prices for beef at a lower scale in England will be reflected in the prices here. In view of the importance of the live-stock industry in furnishing food material both directly and indirectly in the increase of cereals, the utmost precaution should be taken in tampering with the market, that prices may not go down below the limit of profitable production and thus retard the live-stock business to the ultimate detriment of cereal husbandry, agriculture, and the consumer, because in the end the consumer will have to pay if stock and crops are scarce. A man who is described as one of the greatest thinkers in Great Britain has this to say: 'Nature's laws are automatic and must be obeyed. To go contrary to them with proclamations and Acts of Parliament is sheer lunacy; nature never forgives the breach. Now, what is the natural law as to scarcity? When a thing is scarce its cost goes up and up, then production is stimulated and consumption checked and so equilibrium is gradually restored. But the ignorant clamor for a maximum price and those who know better give way to it, then they will keep consumption unchecked and production unstimulated and so let the scarcity grow to famine. There is only one place where law can be usefully employed and that is when, and if necessary, in restraining the middleman if he tries to get extra profit by artificially increasing prices for his own gain.'

There is no doubt but that the action of Controllers, and the uncertainty with regard to what action they will take, is not always in the interest of increased production, of which we hear so much. Tampering with prices without giving due thought to the importance of gaining the confidence of the farmer, of ensuring that he get a reasonable profit on his undertaking, that his business will be safeguarded in the months and years to come, or much talk regarding what is likely to be done and is not done leaves uncertainty in the mind of the producer who must make ends meet from year to year, and consequently hampers production. Prof. G. E.

Day has advised our live-stock farmers to "carry on;" keep up the number and quality of our stock, and thus maintain yields of cereals and other farm crops at the highest level. This is sound advice, but it requires courage to carry on in the face of all the various scares, talk and realities of food control. One thing must be kept in mind, Canada must continue to produce live stock, otherwise farming will fail and the people will suffer.

Sermons in Stones.

BY SANDY FRASER.

I guess there's no denyin' the fact that the mon that is willin' tae wark need never be oot o' a job on the farm. No sooner had I got the last o' the grain intae the barn than I wis reminded o' the stones that were waitin' for me since last year in the back field, and which wad hae to be got oot o' the way sooner or later, gin I wis ever tae get anything for the taxes that hae been paid on it for the last seventy years or mair. Sae at it I went, and for the past couple o' weeks I hae been strainin' my auld back an' wearin' doon ma fingers on the rough stanes till I can hardly hold ma pen till I will be tellin' ye aboot it.

There's a guid mony different schemes for gettin' rid o' stanes, but I hae yet to see the way that it can be done wi'oot a considerable expenditure o' muscle, as weel as the exercise o' what little brains ye may hae. Ye will always be gettin' stuck for a bad lift every little while, na matter how ye plan tae mak' the horses dae a' the horse wark. The only way tae get along an' keep in guid humor is tae keep yer eye on the ground ye've gone over, that looks pretty weel, maybe, an' tae mak it a matter o' conscience tae keep frae lookin' at what has still tae be done. It's one case where it's better tae look backward than forward.

Among the mony different ways o' handlin' stane that I hae seen an' tried, there's nae mair interesting, an' exciting as weel sometimes, than blasting them wi' powder or dynamite. For a stane that the horses canna' handle it's the only cure. Ye can break up a big boulder wi' dynamite sae weel that ye might carry it awa' in yer pockets. That is, gin ye were willin' tae mak' several trips. But ye've got tae be careful aboot handlin' the stuff. I cam' vera near followin' the example o' Elijah, who went up in a chariot o' fire, one time when I wis gettin' a blast ready. A wee bit o' carelessness wi' a lighted match an' I cam' within an inch o' havin' tae leave the country wi'oot sae much as a chance tae say good-bye tae the auld wumman an' the rest o' the folks. But we've got tae tak' a chance an' get rid o' them some way. Up in the west part o' the province I've noticed they're not troubled in this way tae the same extent as we are doon east here, an' they ought tae be thankful tae whatever accident kept them at sic a safe distance frae the land that has tae be cleared twice before there is a chance tae plow it, an' then needs a sort o' annual cleanin'-up as lang as ye continue tae cultivate it, if it's for a thousand years. These small stanes are never done comin' tae the top o' the ground. They gie a mon a great chance tae develop the qualities o' perseverance an' industry, gin he canna' find any ither means o' daein' that same on the farm.

I mind hearin' a chap say that he made it a rule never to hit a stane wi' the plow mair than once. There's na doot aboot it that once is enough, gin ye hit it hard enough. I can call tae mind strikin' a stane this way when I wis a wee chap an' juist learnin' tae plow. The handle o' the plow caught me on the side o' the heid an' laid me oot as flat as if I had been hit wi' an axe. I lay there in the grass for quite a while, thinkin' aboot the sins o' my past life an' wonderin' gin I wis gaein' tae get the chance tae reform. I recovered a' richt, but I wis never the same reckless, care-free chap that I had been up tae the time o' the accident. For one thing I took the lesson tae heart aboot nôt hittin' a stane mair than once, an' noo I dig them oot an' pit them where they belong, which is generally in a big dike along side the field where there is no chance o' my strikin' them unless I should happen tae fall oot o' an aeroplane on to them.

Talkin' aboot these things calls tae my mind a wee joke I had wi' oor meenister some years back. I wis plowin' in one o' my worst fields one day, quite a distance back frae the hoose, an' it seemed tae me that I wis makin' oot tae strike ilka stane that had been left on the place. I had a pretty fast-walkin' team, an' I must hae been usin' some middlin' strong language, or been sayin' something tae them that wis maybe noo just as polite as it should hae been. Anyway, the first thing I knew someone behind me says, "My, my, Sandy, ye shouldna' talk like that. There's no occasion for it, whatever."

It wis the meenister. "Weel Mr. McDiarmid," says I, as soon as I had recovered frae my surprise, "Gin ye think ye can plow in a stony field wi' a fast team wi'oot giein' expression tae yer feelin' once in a while, ye're welcome tae try it". "Hoot Sandy," he replied, "what dae ye tak' me for? Let me try yer plow for a round an' maybe I'll be able tae gie ye a wee lesson in self-control". I got oot from between the plow-handles wi'oot a word an' he took my place. "You keep the lines Sandy," says he, "I'm not used tae daein' mair than one thing at a time."

The plow wis one o' these short wooden affairs that they mak' noo-a-days, that kick like a two-year-old heifer whenever ye hit a stane the size o' yer heid, an' ma lines, an' the horses were juist beginnin' tae step oot pretty good when the plow struck a chunk o' a stane.

The meenister didna' say a word, although it must hae made his teeth rattle, an' I let him hae time tae get another grip on the handles before I started the horses up again. He didna' gae mair than a rod this time before he struck anither. An' it wis a guid solid one. The handle o' the plow caught him juist under the ribs an' threw him a guid sax feet over on to the land that had juist been turned up. He made some remark that I didna' quite catch, sae I went over tae him an' says I, "Wad ye mind repeatin' what ye said, Mr. McDiarmid. It sounded unco' like something I said mysel' juist before ye cam' aroond, but I wouldna' be certain," says I.

He looked at me for a meenute before he got up an' then he says, "Sandy," says he, "Never mind ahin' what I said. Maybe ye were right when ye spoke aboot the necessity o' a mon giein' expression tae his feelin's, an' maybe ye were wrang, but anyway I'm gaein' tae gie ye the benefit o' the doubt. You gae along wi' yer plowin' in yer ain way, or ony way ye like, an' after this I'll attend tae my preachin' an' leave the practicin' for those that think they're equal tae it. It's enough for a mon tae tell ithers how tae do a thing wi'oot tryin' tae gie them ony practical demonstrations."

Wi' that he picked up his hat frae where it had fallen an' went back tae the hoose an' talked tae the auld wumman till supper-time. He wis a guid auld mon in his way, wis Mr. McDiarmid, but he had got quite a bit mair than half way through life before he got a regular workin' knowledge o' some o' the ups an' downs that the mon on the farm experiences in his wark frae one day tae anither.

It's either Shakespeare or some ither o' the auld poets that speaks aboot findin' "sermons in stones", an' I'm thinkin' oor Mr. McDiarmid could hae shown juist how it wis done. He got twa or three good ones oot o' that rock he hit in the back field that day, onyway. I mind that.

Nature's Diary.

A. B. KLUGH, M.A.

Now when the wild cherries are ripe the Cedar Waxwings are more in evidence than they are at other times of the year. There may be fruits which to our thinking are infinitely superior to Pin Cherries, but not from the Waxwing's point of view—these pretty little red shining balls were made juist the right size for him to swallow like a pill, and he has appropriated them for his own.

The Cedar Waxwing is pre-eminently the gentleman among birds, a gentleman of the old school, quiet of voice, quiet of demeanor, quiet yet elegant in dress, and most polite. So polite that it is not unusual to see one bird pick a cherry and give it to another with such a graceful air that one can almost imagine it to say, "Pray accept this trifle as a slight mark of my esteem." Sometimes a cherry is passed from one to another of a row of these birds sitting on a limb until it has passed up and down the line before one will swallow it.

This species is about seven inches in length. Its plumage is soft and silky, the general color being fawn, shading into yellowish-buff beneath and into clear ash on the upper tail-coverts. The tail-feathers are black with a broad band of rich yellow at the tip. A narrow line on the forehead, a bar through the eye, and the chin are black. Below the eye is a white stripe. The main quills of the wings are black, and the secondaries, (that is the smaller quills of the wing which over-lie the main quills when the wing is folded) are tipped with peculiar appendages which resemble little drops of red sealing-wax. These hard, waxy-looking appendages, which give the bird its name, are more numerous in adult males than in females, and better developed in adult than in young birds and may be entirely absent. The plumage of the sexes is similar, the most constant difference being that in the female there is less black on the chin than in the male.

On the top of the head of the Cedar Waxwing is a fawn-colored crest, which can be erected or depressed at will. This mobile crest expresses every emotion of its owner. When lying loosely backwards it signifies contentment, when held straight up it indicates excitement or surprise, and when lying flat and tightly pressed down it expresses fear.

The call-note of the Cedar Waxwing is a gentle, trilling, purring note, and it has no song.

This species breeds very late, raising its young in July and August, when wild cherries and blueberries furnish them with an abundant supply of food. The nesting site varies greatly, as it may be in almost any kind of tree and at various heights from the ground. Both male and female engage in nest-building; the male often bringing nesting-material while the female fashions it into shape. The nest is usually a bulky structure, composed largely of the stems of herbs and grasses, a few twigs, grape-vine and cedar bark, and feathers, hair and wool. The eggs are from three to five in number, pale bluish or bluish gray, marked with small, distinct roundish spots of blackish or umber. The egg tapers rather suddenly towards the smaller end, and the larger end is marked with shades of purple. The period of incubation is from ten to twelve days, the male and female taking turns in incubating.

The breeding range of the Cedar Waxwing in Canada is from Nova Scotia to British Columbia. In Ontario and Western Quebec it is likely to be met with at any time of the year, as its winter movements are controlled by the abundance of fruits left upon the trees.

Of the food for the whole year the United States Biological Survey find that eighty-seven per cent. is vegetable and only thirteen per cent. animal. Of the vegetable food wild fruits compose seventy-four per

cent., and cultivated cherries five per cent. During the spring and summer the percentage of insects eaten is large. They are particularly fond of geometrid larvæ ("span-worms," "inch-worms" and "loopers," as they are variously termed) and of the leaf-eating beetles. A flock of these birds in an orchard will eat tremendous numbers of canker worms. E. H. Forbush, State Ornithologist, of Massachusetts, writes: "Next year was a canker-worm year, and all through the orchard the little geometrids began to cut holes in the young leaves. Then came the Waxwings in flocks, and they stayed there often whispering to one another and always catching worms. They ate until they could eat no more, only to sit about on the branches or play with one another awhile, and then eat again. The canker-worms stripped a few of the old trees, but the Waxwings cleared most of them and saved the leaves, so we did not lose our apples."

In late summer and early fall the Waxwing often imitates a Flycatcher, and taking its post on some tall tree, usually near a pond or river, launches out over water or meadow in pursuit of flying insects.

Grasshoppers, crickets, butterflies, moths, bark-lice, and occasionally a few snails also enter into their menu.

The only crop to which they do any harm is the cherry, and this injury may be avoided by planting some early mulberries round the orchard, the best varieties being the Early Russian, Charles Downing and New American.

THE HORSE.

Diseases of the Respiratory Organs—II.

Acute Laryngitis.

Laryngitis is inflammation of the larynx (the cartilaginous box in the throat at the commencement of the windpipe.) It is not an uncommon, nor yet an unimportant disorder. It sometimes causes death quickly, and in all cases is a serious disease. The gravity of an attack depends largely upon the nature, character and extent of the inflammation. In acute inflammation there is often such a rapid and extensive effusion into the sub-mucous tissue and formation of mucus upon the mucous membrane as to greatly lessen the calibre of the organ, and in some cases almost close it and causes death by suffocation.

Symptoms.—Dullness, well-marked increase of temperature, at first a dry cough, more or less difficulty in swallowing, a portion of the water taken into the mouth usually returning through the nostrils. The respirations difficult, the inspiration being particularly prolonged and attended by a peculiar harsh sound, succeeded by a short expiratory movement. The animal's nose is protruded, the respiratory passage thus being made to approach as near a straight line as possible. The eyes are prominent, their mucous membrane red and highly injected, with an abundant flow of tears. There is an anxious and distressed expression of the face, the nostrils are dilated, there is a dry, hoarse, rasping cough, sweats often bedew the body, the legs and ears are cold, the latter often drooping. There is usually a discharge from the nostrils even in the early stages, at first watery but soon becoming thicker and whitish or yellow in color. The eye is generally more or less swelling of the glands of the throat and soreness on pressure of the parts, which causes the animal to cough. In severe cases the breathing can be heard for a considerable distance. Swelling of the legs and apparent soreness of the joints are sometimes noticed. Excitement aggravates the symptoms. The pulse usually hard and full at first, soon becomes frequent and indistinct; the visible mucous membranes now assume a livid appearance, due to non-oxidation of the blood; prostration becomes extreme; the patient staggers, finally falls and dies after a few struggles.

The above is a description of by no means a common, but a very severe and aggravated form of acute laryngitis. In the majority of cases the symptoms are much less severe, but partake of the general character of those described. As in most cases of disease of the respiratory organs, the patient usually persists in standing, and if at liberty will endeavor to get his nose out of a window or door, with the evident desire to inhale pure, fresh air. There is usually a discharge from the nostrils, even in the early stages. In fact, a free nasal discharge is considered favorable. There is also generally more or less marked difficulty in swallowing, but so long as the patient succeeds in swallowing a little food or fluid, even with difficulty, the conditions are favorable.

Causes.—Ill ventilation, exposure, sudden changes of temperature. Animals are very liable during the time of changing their coats, and young animals when brought out of the fields into warm stables often become affected. It is sometimes complicated with common cold or catarrh.

Treatment.—In mild cases good care will often suffice. In severe cases treatment must be prompt. Inhalations of steam by holding the head over a pot of boiling water to which a little carbolic has been added, tends to soothe the inflamed mucous membrane of the larynx and hasten nasal discharge. As in cases of influenza, the throat requires soothing and stimulating applications, as hot poultices or a poultice of anti-phlogistine, and wrapping with flannel cloths. Some prefer the application of an irritant, as mustard mixed with equal parts of oil of turpentine and warm water, or a liniment made of three parts each of oil of turpentine and raw linseed oil, and one part liquor ammonia fortier, and wrapping it well as above. The throat must be kept warm. Give two drams chlorate of potassium and fifteen grains quinine three times daily. Feed on soft food, as bran, rolled oats, grass or good clover hay, and raw roots. Give milk and eggs to drink, if he cannot eat. Feed out of a high manger and hold the pail of water high, as he can swallow much better with his head high. If quite weak and the pulse very feeble, give two ounces sweet spirits of nitre in a little cold water every three or four hours. No attempt should be made to force medicines down, as on account of the difficulty in swallowing there is danger of some passing down the windpipe and causing suffocation or mechanical bronchitis. All powders should be placed well back on the tongue out of a spoon, and liquids given with a syringe without holding the head up. If the respirations become so loud and difficult that there is danger of suffocation, a veterinarian should be sent for promptly, as he will be able to relieve the patient and probably save his life by an operation called "Tracheotomy" which consists in inserting a tube into the windpipe. In this, as in all cases of respiratory trouble, great care should be taken to keep the patient in well-ventilated quarters, excluded from drafts. In cold weather it is often necessary to move him to much colder quarters, but it must be done even at the expense of heat, and the horse warmly clothed and his legs bandaged to keep him warm.

Sequels.—An attack is liable to be followed by a thickening of the mucous membrane of the larynx or an atrophy of its muscles, either of which will generally cause roaring or whistling, for which little can be done by medicinal treatment. An operation by a veterinarian in such cases gives good results in a considerable percentage of cases.

the breed, interesting not only to Hereford breeders but to all who take any appreciable interest in live-stock matters. The price alone does not make them exceptional animals individually. Nevertheless the prices which they did command signifies that several breeders had great faith in them for they were bought at public auction. Beau Donald, one of the most distinguished Hereford sires in the United States, was purchased as a calf in 1894 for \$125, so the price cannot make or unmake a successful sire. Breeding and individuality are the important factors in selecting a herd header. Martin Fairfax is descended from an illustrious line of ancestors. His sire, Perfection Fairfax, was purchased by his present owner at \$5,000; a good price, but his progeny were proving him a splendid getter when he was bought, and they have been so uniformly good since that he has gained the name of "King of Hereford Sires." Perfection, the sire of Perfection Fairfax, sold at "Tom" Clark's sale in 1902 at the then unheard-of price for a Hereford bull of \$9,000. It was announced at the same sale that the famous Dale, the sire of Perfection, had just changed owners by private treaty at \$10,000. It is interesting also to know that Rose Blossom, the dam of Dale, was purchased during the depression of 1892 for \$75. Dale, Perfection and Perfection Fairfax, were all notable show bulls in their day and getters of show animals. Gay Lad 16th is also the product of a most successful blending of Hereford blood. Together these two bulls should leave an impression upon the Herefords of Western Canada.

Statement Re Bacon Hog Trade.

The following explanation has just been received from H. S. Arkell, Acting Live Stock Commissioner, regarding the action of the British Government in discontinuing the importation of Canadian bacon.

1. There is evidently an intention on the part of the British Government to take such action as will make it possible for them to secure their supplies of bacon and other products at lower prices, and it is clear also that, in connection therewith, they are endeavoring to effect certain financial adjustments, likely to result to their advantage.

2. We are satisfied that, notwithstanding what has happened, there will be need in Great Britain and Europe for all the supplies in the way of bacon, etc., which Canada can produce and that there is no disposition on the part of the British Government to thwart Canada's effort in connection with the development of this trade. The Canadian Government is continually receiving practical assurances substantiating this fact.

3. We believe that there is no reason which would at all justify a panic as regards the present situation, and feel that it would be particularly unfortunate should there be any general disposition in the country to liquidate breeding or feeding stock.

4. The Minister of Agriculture and the Canadian Government are keeping in close touch with the situation and it is believed that, although possibly lower prices will develop, a prompt and satisfactory solution may be obtained which will make possible the continuance of our Canadian export business under sound and normal conditions.

The heads of the United States Food Administration and Agricultural Departments have made the following statements: "It is estimated that already the herds of Europe have been diminished by 28,000,000 cattle; 54,000,000 sheep, and 32,000,000 hogs." If these figures are correct only in part the situation is lamentable, and suggests that breeders on this continent be prepared to assist in the re-stocking and habilitating of Europe.

A report from Omaha states that a Nebraska feeder, E. T. Graham, lately made a record sale of 16 steers, averaging 1,547 lbs. each, at \$15.55 per cwt., being five cents over the previous Chicago mark and \$1.20 above the Omaha market record.

LIVE STOCK.

High-Priced Hereford Bulls in Canada.

During the present year several high-priced Herefords have been imported into the Canadian West from across the line. Most notable among these is the \$17,000 Martin Fairfax, and the \$20,000 Gay Lad 16th. It will be interesting to watch the effect of these bulls on



Gay Lad 16th.



Martin Fairfax.

Our Scottish Letter.

In these strenuous, not to say awful, days, many unfamiliar questions call for solution and the multitude of opinions expressed is bewildering. At present agricultural opinion in Scotland is greatly agitated over a compulsory slaughter cattle order which the Government has issued. The Government wish to feed the army on home-fed meat as the Prime Minister hinted in spring. They mean to commandeer within a specific period 250,000 cattle, not prime fat but about three-fourths fat, for the army, and mean to obtain 100,000 of these from Ireland and the balance from Great Britain. They have fixed the prices at a sliding scale of 74s. per live cwt. of 112 lbs. as from September 1st; 72s. as from October 1st; 67s. as from November 1st, and 60s. as from January 1st. In normal times and under normal conditions these would have been regarded as highly remunerative prices. But most of the cattle that will be ready for sale about December and January were bought as stores at prices which make it hopeless for them to yield a profit at these figures. Hence there is a great outcry throughout the country. The damage will not end with the loss which farmers may sustain on their stores. The Government draft on Ireland will reduce by so much the available store cattle for the English and Scottish feeder. He will have no stock to consume his turnips and straw, both of which promise to be abundant, and having no stores for this purpose he will not be able to make farmyard manure for application to his spring crops of 1918.

The difficulty is to find a remedy. The new Food Controller, Lord Rhondda, is a strong man, and has made up his mind pretty firmly. He has indicated that his own idea was to fix a flat rate of somewhere about 60s. per cwt., beginning with September, but he deferred to the views of others who urged that the Government should do something to reduce the loss which farmers would sustain who bought their store cattle at ransom prices in the spring. Hence the sliding scale. But the sliding scale has had a curious yet not unexpected effect. Naturally farmers who bought their stores at high prices are rushing their cattle on the markets to get the benefit of the prices at present ruling. These this week were running at figures up to and, in some cases, beyond 80s., and no doubt this will continue until the level of 74s. is reached in September, or it may be earlier. The great misfortune is that in a matter of this kind farmers speak with so many voices. There does not appear to be any fixed and definite idea as to the relation which the price of store cattle should bear to fat in order to leave a fair profit to the feeder. As a whole the demand of agriculture is for a flat rate in preference to a sliding scale, but while one says that flat rate should be 65s. another says 75s., a third says from 80s. to 84s. Lord Rhondda says in effect, "As you can't agree my view is that you are all wrong, and I will give you 60s., which is plenty, and it is the consumer I have to think about." To this the farmer replies: "Very good, then fix the maximum price which the consumer has to pay and leave the rest to be decided by ordinary market and trade conditions with the consumer's figure as the starting point. The trouble is that there cannot be a flat rate to the consumer, because every consigner would be sending his stuff to the market nearest him and markets furthest from the feeding areas, such as the greatest market of all, the London meat market, would get very little. The situation is interesting and perplexing. The one lesson which it reads is that we are engaged in a life and death struggle, and the issue is not in sight.

Stock values maintain a very high level, and this is specially true of dairy cattle. All classes of these are making abnormal prices. Ayrshire females have been selling up to £500, and some extraordinary prices have been made for Bates' dairy Shorthorns and British Holstein-Friesians. At one sale four females of the Shorthorn type made 2,000 guineas or an average of £525 each, and 43 lots of both sexes made an overhead average of £133. The Dutch breed have grown rapidly in favor during the past three years. They received an extraordinary fillip from the results of the Byfleet sale in November, 1914. The importation of a shipment from Holland has done marvels in grading up the home stock, and this autumn has witnessed some notable sales. At Pebsham in Sussex, 74 head made £80 15s. At Golf Links, near Todcaster, in Yorkshire a bull, one of the Byfleet lot, bred in Holland, made 1,700 guineas or £1,785; another of the same at Dell of Inshes, near Inverness, made 800 guineas or £840, and a bull calf by this sire out of an imported cow made 1,000 guineas or £1,050—an unprecedented figure for an animal of the kind and age. At a sale of young stock numbering 77 head at Convent Mains, near to Montrose, an average of £61 13s. 7d. was recorded, and at the Dell of Inshes sale 48 head made an average of £171 17s. 3d. At the Golf Links sale the average for 66 was £212 18s. 19d.

The dispersion of these dairy herds is not a wholesome feature of present-day agricultural life. In most cases it is due to labor scarcity. Dairy farming cannot be carried on without skilled labor. Any sort of as-

sistant will not do on a dairy farm, and one of the gravest problems of agriculture before the war, scarcity of skilled female labor, has become greatly intensified during the war. For some unexplained reason there is a distinct aversion to leaving the art of hand-milking on the part of the younger generation in rural districts, and so far no universally acceptable mechanical milker has been put upon the market. The really successful milking machine which can be left to the management of an average dairy hand has not yet been found. The most generally popular machine in Scotland is the "Wallace," patented by Messrs. J. & R. Wallace, Castle Douglas. It is in extensive use in the Southwest of Scotland, and when rightly looked after it gives good results.

The Corn Production Bill has passed through the House of Commons, and is now before the House of Lords. It has had a strangely varied career, and it contains principles which it will be difficult to get rid of when normal times return. As it now stands it is a war measure and is presented as such. Its one aim is to ensure a greatly extended growth of cereals within the British Isles during the next six years. As originally drafted its intention was to pay a bounty to farmers, for the amount of corn (that is wheat or oats) which they grew and sold, but as it emerged from the lower House it proposes to pay a premium on the extent of land which is brought under tillage for corn-growing purposes during the next six years. It is not anticipated that any effect will have to be given to its provisions for the next year or two—in other words, it is anticipated that prices up to that time will be on a level above that at which the bounty clauses of the Bill become operative. Whether it will tend to put a premium on improved farming or merely upon an extension of indifferent farming is rather in doubt. The sound principle undoubtedly is to put the premium on improved farming, that is the sure way to promote agricultural prosperity. But as things are at the moment every interest is subordinated to the production of food for the people. The motive behind this legislation is the submarine menace. At all costs the people of these islands must be fed, and any and every theory or even established economic truth which militates against that must go by the board. We are forced to make tremendous experiments, because we are faced by tremendous dangers.

In view of these facts and in order to meet new conditions such a venerable institution as the Highland and Agricultural Society has had to launch forth into the deep. No show has been held since the war began, that is, we have had none in 1915, 1916 and 1917. As there is urgency in the agricultural situation we have had a novel departure, viz., a two-days' conference on the Improvement of Agriculture. The conference met in one of the best Halls in Edinburgh on Thursday and Friday, 9th and 10th August. On the opening day there was an attendance of about 1,000, representing the picked men and women of Scottish agriculture from all points of the compass. The Chairman on the opening day was the youthful Marquis of Linlithgow, and on the second the Secretary for Scotland. The forenoon of the first day was devoted to the consideration of a new Agricultural Policy. The subject was introduced by the Earl of Selborne, Chairman of the Agricultural section of the Reconstruction Committee appointed by the Asquith Government. His argument was that only stability could give security to agriculture, and without security it was impossible to take the best out of the soil. He roundly condemned the security which the occupation obtains under a system of dual ownership, or, as he expressed it, a system of judicial repts and fixity of tenure. His alternative was land purchased with State assistance for the man who desires to purchase his holding. He omitted to say what security he would give to the occupier who either could not or would not purchase. A land system under which a tenant does not enjoy the certainty of reaping the fruits of his investments and his toil, is not a system under which a tenant can possibly be expected to make the land produce its best. And so long as land does not produce its best the commonwealth is not being served as it ought to be by the land. The Committee, of which Lord Selborne is Chairman, has issued a report in which the following pregnant and overwhelmingly suggestive paragraph occurs:

"Nothing in agriculture can be done by the wave of a magician's wand. Results can only be produced in the United Kingdom as in Germany by a constant and consistent policy. The State must adopt such a policy and formulate it publicly as the future basis of British agriculture, and explain to the nation that it is founded on the highest considerations of the common weal. It must be explained to landowners, farmers and agricultural laborers alike that the expense of this War has shown that the methods and results of land management and of farming are matters involving the safety of the State, and are not of concern only to the interests of individuals. They must be plainly told that the security and welfare of the State demand that the agricultural land of the country must gradually be made to yield its maximum production both in foodstuffs and in timber. The history of our country shows that when once the path of duty is pointed out to them and they understand how grave is the responsibility put upon them, neither landowners, nor farmers, nor agricultural laborers will fail to rise to the emergency."

That is a very remarkable paragraph. It contains the germ of an agrarian revolution. It is like the leaven which a woman took and hid in three measures of meal until the whole was leavened. It is much more remarkable when the names are scanned of those responsible for its appearance in this report.

SCOTLAND YET.

THE FARM.

Provide Satisfactory Storage Place For The Tubers.

An unprecedented acreage of potatoes was planted last spring, and the weather in most parts of the Province has been favorable to the potato crop. Very little blight was heard of up to the first of September and by this time the tubers have attained a considerable size, so that a heavy yield is anticipated whatever may happen in the way of loss by disease between now and the time of digging. Blight and other diseases may yet cause a serious loss by soft or dry rot. The men who kept the vines covered with Bordeaux are not worrying much about rot due to blight. Potato harvest is almost at hand, and dry weather and dry ground are required if the potatoes are to be placed in storage in a clean condition. The average farmer who only grows from one-half to one acre of this crop does not worry much about the harvesting, but where potatoes are grown on a commercial scale plans are laid some time in advance so that other work will not interfere with the digging, storing or marketing of this important crop. The tubers may be left in the soil until night frosts stiffen the soil a little, but there is always the danger of the weather becoming cold and wet, which makes potato digging a disagreeable task. Consequently, the work is commenced as soon as possible after the plants mature.

If late blight or rot has made an appearance in the field a common practice is to delay digging as long as possible, in order that the rot may do its worst in the field rather than in storage. The sound potatoes are then picked up and placed in pits or on the barn floor for a few weeks for fear of further development of disease. When cool weather sets in they can be placed in the cellar. Besides the rot, powdery scab and canker are two diseases which affect the tuber, and if either of these are found in the crop the tubers should be destroyed. As yet, they are not common and Canadian potato growers would do well to keep these diseases out of their fields, as the tubers are not only rendered unfit for consumption, but, if the soil becomes infected, it will be unfit for growing potatoes for several years.

A few growers have found that it pays them to select next year's seed while the crop is still in the field. By saving the tubers from the most productive hills, the yield is increased. This is not so easily done when the potatoes are dug with a potato digger, but even then it is possible to collect a uniform sample and to handle them to avoid bruising. It has been found that potatoes carefully handled and stored by themselves produce stronger plants the following year than tubers taken from the bin that has supplied the table all winter.

Where only a few potatoes are grown the custom is to plow them out, but where an acreage is grown the potato digger is almost indispensable. It leaves the potatoes on the top of the ground, fairly free of soil and stalks, which makes gathering much easier than where the tubers must be separated from the soil by the hand. At best, potato picking is hard on the back. Where the plow is used, we have found it a very good practice to shake the tubers free from the soil with the fork.

A good many potatoes are marketed at the time of digging. While the price may not be as high then as it is in the spring, the danger of loss through rotting in storage is eliminated. Potatoes will shrink considerably in storage, although it is believed that the greatest shrinkage takes place the first two or three weeks after digging, and again in the spring when growth commences. Wire pails are found to be very convenient for handling the tubers. They are light and they allow the dirt to sift through. Wooden crates will be found convenient for carrying the potatoes from field to storage place. A bushel crate is twelve inches deep, fourteen inches wide and eighteen inches long. They can be built of half-inch material.

The storage place should be dark and, if the temperature can be kept around thirty-five degrees the tubers will keep better than if stored in a warm cellar. Dryness, coolness, darkness and proper ventilation are essentials of a good storage house for potatoes. Heavy loss is caused each year by failure to provide one or all of these requisites. Instead of putting the potatoes on the cellar floor a temporary floor could be built of slats, leaving about six inches between it and the permanent floor to provide circulation of air. If a large number of tubers are to be stored in the one pile, it is advisable to leave air space on the sides, as well as top and bottom. The less potatoes are bruised the better they will keep.

As potatoes are a perishable product and must be marketed in the spring at the latest, the supply and demand influence the price so that a light crop is oftentimes as profitable to the producer as a heavy yield. There is promise of a good crop this year, but the growers have found the cost of growing to be far above the average, so that in order to break even the price this fall should be considerably higher than it was when the last "bumper crop" was harvested. However, without a strong organization the grower has little to say in setting the price. Marketing is as yet the weak end of the potato business. Little grading is done at the point of shipment, small and big, red and white, smooth and rough tubers all go into the same car. One or at most two varieties in a district, grading as to size and an organization would help the grower of potatoes on a commercial scale.

What About Sugar?

EDITOR "THE FARMER'S ADVOCATE":

Often since the war food-saving propaganda began, I have wondered why the powers-that-be have been so hesitant about inaugurating a crusade for the saving of sugar. Bacon-less and beef-less days have been instituted, the consumption of canned vegetables ordered off for a while, and a little flourish was made for a few days over the prohibition of the use of wheat in whiskey-making, which turned out to be so trifling as not to amount to shucks. It has been stated that in the United States two or three times the quantity of sugar enters into home use as there is any real necessity for, and proportionately I presume the same might be said of Canada. Be that as it may, it has long been urged that the excessive use of sugar in diet was conducive to serious forms of modern disease, and there can be little question about the injurious effect on human teeth in millions of mouths, particularly those of the young perpetually munching candy. I venture no computation of the huge number of barrels of sugar diverted in that direction when one thinks of the concerns turning out sweets and the innumerable counters over which they are served. Now if vast quantities of sugar thus go into use in ways that are needless or positively detrimental it would be the part of wisdom by thrifty people to begin the reform at once for themselves whether the Food Controller makes a move or not. In our homes we get into the habit of heaping sugar on the breakfast porridge and scores of other dishes until an unnatural craving for it is cultivated, and the appreciation of the natural flavors of various foods is lost or drowned under a flood of sweetness. Hunger and the real needs of the body should govern rather than a stimulated hankering. The cost of sugar has become to the people a very serious burden, and men in commercial lines assure me that perhaps in no other product in general use is there so much jockeying with supplies and prices as in case of sugar, to the detriment of re-

tailers at all events, as mere distributing agents, and the great mass of consumers all over the country. This has been going on for years before the war and was strikingly in evidence when, just as housewives were urged day in and day out to preserve and can all available fruits for future use, the price of sugar was shoved up another notch or two. It is all very easy to blame this entirely on war conditions, but it will require considerable explaining to dissipate the idea that advantage is not being periodically taken of situations by a small group to levy a few more millions on the many. Word comes from Washington that United States Food Administrator, Herbert Hoover, who, by the way, is a farm boy now occupying one of the most important administrative positions known in the history of the American nation, has tackled the sugar octopus and succeeded in effecting such a readjustment of prices as would mean a saving to the people in the year of some \$30,000,000.

Muskoka and Parry Sound.

ALPHA.

Show the Way to Farm.

EDITOR "THE FARMER'S ADVOCATE":

The letter of Mr. Stewart on the business of farming, in which he says, "There is a big difference between technical knowledge of agriculture and the practical knowledge of how to make a farm pay", is very timely.

That is the trouble with our Agricultural Departments to-day. They are loaded up with specialists in agriculture, but they have no one who understands plain farming for a living, or if they have they do not let any person know about it. What the farmer wants is less of the science of agriculture from the platform and bulletins, fewer demonstrations in small plots where the farmer has to provide everything regardless of costs and overhead charges, and more practical work taking the farm as a unit. A demonstration might apparently show a good profit, but by interfering with regular crops and

work of a farm be responsible for a serious loss in other departments. All demonstrations should be conducted with the whole farm when all overhead expenses, interest, taxes, etc., will of necessity be included. There has been a great deal of misleading information issued, because demonstrations have been conducted on small plots. Like Paddy and his pig, he made on the pig but lost on the corn. So in many cases the farmer made on his demonstration but lost on his farm.

Instead of managing a farm and showing farmers how to farm, the Farm Management Department will conduct a survey and try to find out from the farmers how to farm. The farmer wants to be shown and if the Farm Management Department is competent, instead of asking the farmer how to farm, let them do as commercial firms do, go out as productive engineers. An owner of a factory can engage a productive engineer to walk around his factory for a week or several months according to its size. He then makes a report of changes which he would recommend and the usual practice is to retain the same engineer who makes the preliminary report until the changes have been made and everything running smoothly.

If with all the money that has been spent on the Department of Agriculture, with all their specialists and wealth of information they have no one who can manage a farm, what is the use of trying to show the farmer? If they have, let them get out, manage farms and show reasonable profits after salaries, interest and taxes, and all overhead charges have been taken out. Let them be willing to go out as farm engineers and tell us how we can manage our farms, not a plot here and a plot there, but the whole farm so that we can make a profit from it.

If they would do this the farmers would have confidence in the work and there would be so many calls the staff would have to be greatly increased. When this is done, and not before, will the farmers have confidence in farm management or demonstration work.

Grey Co., Ont.

G. T. MARSH.

Canada's Young Farmers and Future Leaders.

Learn to Do by Doing.

Agricultural extension work is carried on in many schools in the States of the Union to promote an interest in farm, garden and home. Clubs are organized to inspire, enthuse and train the boys and girls for leadership. It is called the 4-H Brand Education, as it trains the head, hand and heart and gives health. An endeavor is made to teach in terms of life and to bridge the gap between school and home. By having plots to cultivate at school or at home habits of industry are cultivated and the evils of idle hours are defeated. Thrift and economy, two important traits of character leading to success, are emphasized. The why and wherefore of things are taught and do, dignity and dollars are put into achievement. This Club work, with its practical line of teaching, has created a great deal of interest among the boys and girls. In many respects it is similar to the School Fair work carried on in Ontario, only that it goes a little farther. The school boys select and feed pigs for prizes given according to a score card which recognizes type, finish, and economy of feeding. Girls can fruit and vegetables, besides making a study of flowers, plants, etc., along with their regular studies. At a large exposition held in Massachusetts, a building was filled with boys and girls' work and a large tent sheltered the pigs entered in competition. An array of jars of canned fruit and vegetables put up by girls from different schools, showed that they had been putting their training into practice. In the hog pens a placard was hung over each pen giving the weight of the hog, the age, kinds of feed fed, and the cost of the same. The visitor had an opportunity not only to compare the hogs as to type and finish, but the rations

and grains could also be studied. The boys had the experience of feeding their pigs and attending to them and of gaining an idea of what it costs to make 100 pounds of gain with certain kinds of feed. The results were a revelation to many of the older men. Parents are being taught many valuable things through their boys and girls taking part in competitions. The lessons out of doors make the studies out of books easier. At the present time the average farmer does not know what it costs him to raise a colt or a calf to two years of age, or to bring a hog up to 200 pounds. He has little idea of the amount of time spent in plowing, cultivating, sowing, reaping, and harvesting a crop. He is not in a position to know what a certain crop or animal should be sold for in order to leave him a net profit. The cost system in farming will be more generally practiced by the next generation than by the present, owing to the training boys and girls are now getting in and out of school. Keeping records of work performed either in the field or stable and having data to show what it costs to raise or feed a certain animal adds interest to the work. Why shouldn't the farmer know what his products cost? In commercial enterprises everything connected with the manufacture of an article is figured up, then so much is added for profit before a selling price is quoted. They safe-guard themselves and if a certain line does not pay they cease making it. To a certain extent the farmer can do the same. On some land certain branches of farming prove more successful than others. There may be better markets in a community for one breed of stock than for another. A study of these things should be made. We know lack of time is a handicap, but, is it not possible to find a little time for the study of a business in order that the unprofitable phases may be reduced leaving more energy to be

expended on those branches which can be best produced? Commencing to keep a cost account of feeding stock or growing crops during school days cannot help but show the benefit of doing so with all farm operations, and is likely to lead them to do so when they have a farm of their own. Without knowing what it costs to produce food products the producer is not in a position to meet consumers' arguments, relating to prices of grains, meats, vegetables, etc. We would advise every boy who has charge of certain animals to keep an account of feed consumed. Grain can easily be weighed, roughage not so conveniently but a close estimate can be made. By knowing what an animal is eating, and weighing that animal occasionally the feeder can estimate what it costs to put on a pound of flesh.

There may be difficulties in the way. Scales may not be kept at the farm. However, where there is a will there is a way. One boy weighed his pig monthly by use of a small spring balance scale. You may think this impossible, but it was done. A pole was suspended from a beam and a box for the pig fastened to one end. A box was placed on the other end to balance it and stones were weighed with the small scales and placed in this box until they balanced the pig. The weight of the stones was the weight of the pig. While this system may not be accurate it was found that this boy did his work so carefully that his final weight was only a pound or two different from the official weight. This instance shows the ingenuity of some boys. A calf could be weighed the same way.

Pig clubs, canning clubs, acre profit competitions, school plots are all doing their part in training boys and girls to see bigger things in farming. All who have an opportunity should take part, and parents should give every encouragement.

Automobiles, Farm Machinery and Farm Motors.

Little Things Worth Knowing.

We were in continuous attendance at the great Canadian National Exhibition, Toronto, and each day of its successful operation came into close touch with motorists of varied experience. One can learn a great deal by picking the other fellow's brain. We heard the results of numerous interesting experiments, became familiar with a multitude of new ideas and listened to a first-hand story of how English manufacturers have succeeded in supplanting the German ascendancy in magneto making. Of course, you know that magnetos are absolutely essential to the automobile trade. When the war broke out their supply depended for the most part upon the Huns. This industry had never been questioned by other countries because capital was not readily available to start any real rivalry. The war made it imperative that German magnetos should be replaced and so engineers successfully accomplished the desired purpose in this fashion. They took one of these Hunnish inventions and removing only one part, placed in its stead a unit of their own devising. When the changed mechanism ran as well as its original, another part was taken out, another substitution made and the newer contrivance worked until it attained perfection. In this way a new machine of English construction and

material and of the same efficiency as the German type was developed for home and foreign trade. No longer is motordom dependent upon the Kaiser for its magneto supply. Truly necessity is the mother of invention.

A visitor to the Fair told of how he had trained his ear to detect storage sounds and noises about the body and power plant of his car. By practice and much reading he has become extremely proficient in the location of trouble. His new sense not only saves time and money, but builds up a pride in one's auto. You can emulate such an example, and at the same time develop a fascinating hobby. Should you decide so to do be good enough to remember at the outset that regular sounds come from revolving parts and irregular ones from the components of the body and chassis.

Did you ever pull out the ignition switch on the dash of your car and, feeling that everything was all right, press down upon the starting toe pedal without result? If you have then no one can deny that you've been sadly embarrassed. You thought at first that serious engine trouble had developed. The car didn't give a single solitary sign of life. Well, it is one of those death indications that advises the location of the trouble. When under such circumstances the hand of the ammeter is neutral you will know that the difficulty is in dirty or corroded battery connections.

There is gradually getting into the somewhat extravagant head of the motorist an idea of economy in the wear and tear of his auto. Owners have been discussing gasoline and tire mileage incessantly but until recently they have never given any particular attention to those little stunts that save the machine itself. Why not coast your car over the bumpy, lumpy parts of the road and save it as well as considerable engine power? Don't use one brake constantly. Remember that both are meant for wear and that there's no occasion why one should go before the other. If you wish to save the lining or plates of your clutch do not make a habit of constantly slipping it. Furthermore in some types of multiple dry disc clutches wear is easily developed even by keeping the foot upon the pedal in the driving compartment. Pressure upon the pedal tends toward the scraping of the plates.

A visit to the Fair makes many a country and town motorist realize that he doesn't know all about driving. Anyone who manoeuvred out of the eastern or western entrance on one of the big nights knows exactly what is meant. This should emphasize the imperative necessity of care, and care means having both hands on the steering wheel all the time. Don't get "fresh", (there is no other word just as good), and attempt at any time to drive through heavy traffic with one hand.

You may need both in any number of tight places, and the seconds lost in bringing the second hand into position could easily spell disaster. Furthermore don't keep both hands together on the steering wheel. What you want is the best possible leverage, and so they should be wide apart. It is also folly to drive with the spokes for there isn't any particular accuracy obtained in using them.

Do you know the difference between "skidding" and side-slipping? Both expressions are being used almost daily by owners and drivers. Here is a definition that appeals to us as covering the situation. "Skidding means a continuous forward movement of the car with one or more of the wheels not turning, while side-slipping is a lateral or sidewise movement of the car." AUTO.

THE DAIRY.

Cold Storage Facilities on the Farm.

Bulletin No. 49, on "Small Cold Storages and Dairy Buildings," written by J. A. Ruddick, Dairy and Cold Storage Commissioner, and J. Burgess, Cold Storage Inspector, contains some valuable information for anyone contemplating erecting an ice-house or building a refrigerator. It is generally conceded that a large quantity of food products are wasted every year owing to the lack of some method of keeping the temperature of the storage place low. A more general use of ice in the farm home would tend to make a saving in the food and add to the comfort of the people. Ice may be stored in a rough out-building or shed and carefully packed around with sawdust or planer shavings, which will insulate the ice and keep it reasonably well. However, Bulletin No. 49 illustrates and gives the specifications for five different types of improved ice houses and refrigerators. Plan No. 1 is intended for the use of patrons of cheese factories; No. 2 is an ordinary ice-house with dairy or milk rooms; No. 3 is an ordinary ice-house with a refrigerator and milk room; No. 4 is a farm dairy insulated ice-house and refrigerator, and No. 5 is an insulated ice-house and refrigerator and is especially adapted for a large country house. The latter two plans are provided with permanent insulation of the walls, floor and ceiling of the ice chamber. In plans 1, 2 and 3, sawdust or shavings are used for insulation. Blue prints of these plans may be secured on application to the Dairy and Cold Storage Commissioner, Ottawa. Following are the specifications as given in the Bulletin for ice-house with refrigerator and milk room:

All lumber used in the construction of the ice-box, refrigerator and milk room must be thoroughly seasoned, and free from all knots, shakes or other defects. An odorless lumber like spruce is necessary to avoid the danger of tainting milk or butter.

Spruce or hemlock, in the order named, are the best woods for all inside work. Pine may be used for outside work where walls are insulated on the inside.

Drainage.—If the soil under the ice-house is impervious clay, drainage should be provided.

Foundations.—The foundations may be constructed either of concrete or stone. A good mixture for concrete is one part Portland cement, three parts of sand and one part 1½-inch or 2-inch broken stone or gravel.

Cover the area of the ice-house and milk-room floors with 12 inches broken stone, coarse gravel, or cinders. Walls.—The outer walls are constructed by first bedding on the concrete or stone walls a 2-inch by 5-inch sill and upon this sill erecting the corner posts and 2-inch by 4-inch studding at about 24 inches on centres, and a double 2-inch by 4-inch plate on top of studding.

The exterior walls of refrigerator and ice-box have double studding staggered. The partition dividing ice-house from ice-box and milk room, has 2-inch by 6-inch studding.

The exterior walls are sheathed with ¾-inch tongued and grooved sheathing, then covered with two-ply building paper on the refrigerator and milk room and one-ply on the ice-house, and finished with siding or clapboards. The interior of ice-house and milk-room have single ¾-inch tongued and grooved sheathing excepting around ice-box and refrigerator, which has double sheathing. (The inside of the ice-house may be finished with rough lumber, excepting that part of the wall which adjoins the ice-box.) The interior of the ice-box and refrigerator has double sheathing throughout, with two-ply, damp-proof paper between. The space under floor and in walls, partitions and ceiling is filled with sawdust or shavings, preferably shavings. Make a 6-inch opening the full width of partition at top and bottom of partition separating ice-box from refrigerator for circulation of cold air.

Floors.—The floor of ice-box and refrigerator is constructed as follows: Level off and cover the earth with about one foot of coal cinders, dry sand or gravel; bed in filling 2-inch by 4-inch sleepers and floor over with ¾-inch tongued and grooved flooring. Set 2-inch by 6-inch joists at 20-inch centres, and fill in between with sawdust or shavings, then lay a double ¾-inch floor of tongued and grooved boards, with two-ply of damp-proof paper between floors. The floor in the milk-room should be constructed of concrete and finished with ½-inch of cement mortar, trowelled smooth.

Ceiling.—The ceiling of refrigerator and ice-box is constructed of 8-inch joists, filling, and double sheathing top and bottom, with two-ply, damp-proof paper between the sheathing underneath, and two-ply, building paper above. The ceiling of milk-room is covered with two-ply building paper and one course of sheathing underneath joists.

About 6 inches above the floor in ice-box, place 2-inch by 4-inch bars at 4-inch centres. The floor of

ice-box is covered with galvanized iron extending up on walls, forming a pan, this pan to be connected with a 2-inch trapped drip pipe.

Roof.—The roof is constructed of 2-inch by 4-inch rafters set at 24-inch centres, sheathed on top with ¾-inch dressed lumber and then covered with shingles laid 4½ inches to the weather, or other roofing material.

Doors.—The exterior doors have 2-inch stiles and ¾-inch battened panels. The doors to ice-box and refrigerator to be fitted with bevelled frames, the edges of doors to be bevelled to fit the frames, and doors double sheathed both sides with ¾-inch tongued and grooved spruce, and two-ply paper between. The 6-inch space in doors is to be filled with shavings, and the bevel faces to be covered with felt or canvas to make as nearly as possible an air-tight joint.

Windows.—The windows to be fitted with 1½-inch double sash, as shown.

Ventilators.—Construct louvre windows in gable ends with 1½-inch frame and ¾-inch louvre boards.

Finish.—The interior of the refrigerator and milk-room should be given two coats of whitewash. The ice-box should have two coats of shellac or boiled linseed oil. The exterior may be painted two coats in any desired color.

Before putting in the ice, lay 12 inches of sawdust or planer-mill shavings over the area of the ice-house floor, also surround the ice with 1 foot of the same material.

The insulation of the ice-house would be improved by filling the space between the studding with shavings or sawdust or, on the other hand, if it is desirable to cheapen the construction the sheathing and paper on the outside of the ice-house may be left off and the studding simply covered with siding or clapboards.

Considerable more material is required, necessitating a greater expense, for an ice chamber provided with permanent insulation of walls, floor and ceiling. However, such a building eliminates the need for sawdust or shavings around the ice, which have to be put in each time the ice-house is filled. The ice does not have to be touched during the summer, as the air circulates between the ice chamber and refrigerator for cooling purposes.

No general rule can be given for the size of ice chamber for the farm, as it depends on the nature of the building and the extent to which ice is used. Where sawdust or planer shavings are used for insulation a ton of ice will occupy about 40 cubic feet of space. A cubic foot of ice weighs 57½ pounds, and a ton of solid ice measures about 35 cubic feet. Using 115 pounds of ice per day for the four summer months, a building 10 feet square and 10 feet high would furnish plenty of space for the quantity of ice needed and for the packing material.

Europe's Many Cheeses.

Milk is milk all the world over, for, vary as it does in its percentage composition, it may always be described as an emulsion secreted by special organs from the blood of mammals for the nourishment of their young, and actually is in appearance, composition, and nutritive value much the same.

When we adopt, as in cheesemaking, a means of artificially digesting milk by treating it with an extract from a mammalian stomach—rennet to wit—we find that the results in appearance and palatability are widely different.

By simply renneting fresh milk as it comes from the cow—that is, pouring in and thoroughly mixing with it a tiny quantity of rennet liquid extracted from the stomach of a calf by salting and steeping—we get the soft but smooth jelly-like curd known as junket. With no additional treatment, neither as regards temperature nor handling, this junket is consumed in its freshly-made condition, but if, either previous to or after renneting, the temperature is varied we get varying results, and in proportion to the quantity of rennet used.

Under systems closely akin to the preparation of fresh junket all the really "soft" cheeses that are eaten at a few days old are made. With a little further manipulation the separation of the whey from the curds is encouraged; the drained curd is moulded or shaped; a slight fermentation occurs, and the tasteless curd ripens into a delicate-flavored cheese. Except for the well-known cream cheeses which are distinct, cheeses of this type are Continental varieties such as Coulommier and Pont l'Evêque.

Modified by a longer period of curing and under special conditions, so that the usual lactic ripening of the curd is supplemented by the digestive work of moulds and other organisms, we get such cheeses as the Camembert and Brie.

The British "soft" cheeses are Cambridge or York, made by the simpler processes of draining and moulding, and such small cheeses as the Colwick, Slipcote, and miniature Wensleydales, but these latter are made from a firmer curd, and subjected to a slight pressure when moulded.

Progressing in the review, to cheeses of firmer texture, though in the evolution of cheese-making all these types are the more or less perfect fruit of many different branches of development, we must know the blue cheeses typified in the Gorgonzola, Stilton, Blue Wensleydale and Dorset varieties.

Differing as do these four in flavor, in richness, and to some extent in appearance, they are manufactured upon certain lines which taken together favor, or at least permit the development in the interstices of the cheese of microscopic moulds, visible where extensively developed as blue, green, or multi-colored streaks in the cheese mass. According to the local surroundings of manufacture, certain subsidiary developments take place

that modify texture, flavor and appearance, so that we get the rather strong-flavored, mottled, and waxy Gorgonzola from Italy, and the milder, softer flavored and streaked Stilton, with its netted rind. Of somewhat different appearance, but equally good, is the tall Wensleydale. An inferior cheese, made in the first instance of poorer milk, and later, pressed in the mould is the harder-textured Dorset, often pleasing in flavor, but below standard in quality, as it lacks in cream.

These cheeses take from many weeks to several months to ripen, but, on the other hand, kept under the best conditions and tended from time to time, will remain eatable for some little time. Their manufacture is carried out under conditions of much care so far as the best makers are concerned, though, as is true in any cheesemaking district, there are many instances of inferior cheese being systematically made that never more than approximates to the proper type of the cheese of the district in question.

These belong to the more solid, harder varieties of cheese, of which there is a very large variety. Practically all of them are made of mixed milks—that is to say, milk that is quite sweet and fresh from the cow mixed with milk that is already to some extent advanced towards acidity. The amount of lactic acid already developed, aided by a re-warming of the mixed milk to a temperature approaching blood heat, results, when renneted, in a curd of strong contractile power that, under favorable circumstances of cutting, stirring and further warming, readily expels its whey and separates into firm curd grains about the size of wheat or peas, according to treatment and requirements. A further acidification or ripening now goes on for a few hours until, when the curd is finally ground in a mill and salted, it is pressed in a mould with the lactic fermentation well advanced. The pressure—amounting to many hundreds of pounds as a rule—checks this ripening to such an extent that it is afterwards very slow in progress, but takes such a form that its effect upon the raw curd is to change it into a ripe, soluble cheese of such a flavor and texture as is the result of certain fermenting organisms favored in their work and development by the particular treatment undergone. Thus we get the globular Edams or round Dutch cheese, and the Gouda or flat Dutch of lower quality, but both made under much the same conditions. These cheeses have a texture firm but elastic, like no other kind of cheese, and a peculiar flavor of their own. Then there is the Emmentaler or Gruyere, made from the milk of the "high Swiss pastures," full of eyeholes and having a still more pronounced flavor that seems to be akin to the Edam taste.

In England we have two typical cheeses of native manufacture, and many more of less note, but mostly being more or less variations from the two best known, which are Cheddar and Cheshire. The first is a firm white cheese, close in texture, full flavored, long-keeping when required, and manufactured on certain definite lines of treatment that in the finest cheeses require about four months to result in a fully ripe cheese.

The second is a colored cheese, the color being obtained by adding vegetable extracts to the milk, of more loose, flaky texture than the foregoing, equally full flavored, but of different taste. Perhaps in these days of rapid transit the survival of the fittest will mean that the manufacture of those cheeses that travel well will extend.

POULTRY.

Extra Feed is Required During the Moulting Season.

At this season of the year the old birds begin to lose their feathers. It is the natural moulting season, and the time at which it takes place and the care the hen receives influences the winter egg supply, and, incidentally the yearly production. Moulting can be brought on early by using stimulating feeds, but the hen decked in her new dress in September is not always the one which will lay the most eggs when they are high priced. As a rule the hens that moult late and quickly are the highest producers. It is well for the bird to be feathered out before cold weather sets in, as growing a new set of feathers is a severe drain on the bird's vitality without the further discomfort of having to withstand inclement weather. It is essential that the birds be well fed at this particular time. If not, their vitality becomes lowered to such a degree that it takes weeks for the birds to get back to normal. Wheat, corn and oats, fed in sufficient quantity to keep up the weight of the bird, are good grains to use, but in conjunction with them it is well to feed a mash fairly rich in protein and mineral matter, which aids in the growth of feathers. Meat scraps or oil cake meal should be included in the mash. To neglect the birds during the moulting season might jeopardize the egg yield this coming winter.

Authorities claim that the progeny of stock which moulted during the late summer or early fall has a tendency to moult at the same time as their parents. If late, quick moulting goes with heavy production, it is advisable to select birds with these tendencies for breeding purposes. Moulting ordinarily takes six or eight weeks, during which time eggs are not produced. Shortening the moulting period by extra feeding tends to make a fuller egg basket.

Poultrymen sometimes desire an early moult in order that their birds will be feathered out for the show. Moulting can be hastened by reducing the ration for two or three weeks, which has the effect of stopping egg

FARM BULLETIN.

Winter Crops in Ontario.

The time between the harvesting and the seeding of winter crops is exceptionally short this year. Many farmers will be unable to thresh their wheat before it is time to sow for another crop. Farmers who have already threshed good, pure grain of standard varieties of winter wheat or winter rye might advertise their surplus for seed purposes to advantage, both to themselves and to others. Every effort should be made to increase the winter crop area as much as possible. The wheat is greatly needed and the increased acreage sown with winter crops will lessen the labor required for spring seeding, and also extend the harvest over a longer period next year. Let us aim for one million acres of winter crops for 1918.

Experiments have been conducted at the Ontario Agricultural College and throughout Ontario during the past year with winter wheat, winter rye, winter barley, winter emmer and hairy vetches. The autumn of 1916 was comparatively dry, and the spring and early summer of 1917 exceptionally wet. There was more rainfall in June and July of this year than in any two consecutive months in the past seventeen years.

About two hundred and ninety varieties of winter wheat, and many selections and crosses have been grown under experiment at the Agricultural College within the past twenty-eight years. Of the named varieties fourteen have been grown in each of twenty-two years, and the results of these are of special value. The following gives the average for twenty-two years in yield of both grain and straw per acre and in weight per measured bushel of a few of the leading varieties: Dawson's Golden Chaff, 50.2 bushels, 2.9 tons, and 59.9 lbs.; Imperial Amber, 47.2 bushels, 3.1 tons, and 61.1 lbs.; Early Genesee Giant, 45.9 bushels, 3.0 tons, and 60.1 lbs.; and Egyptian Amber, 45.5 bushels, 3.1 tons, and 61.5 lbs.

The average results of the fourteen varieties are as follows: yield of grain per acre 25.6 bushels for 1917, and 44.3 bushels for the twenty-two year period; yield of straw per acre 1.9 tons for 1917, and 2.9 tons for the twenty-two year period; and weight per measured bushel 56.7 lbs. for 1917, and 60.9 lbs. for the twenty-two year period.

Of the thirty-four varieties of winter wheat which have been tested for the past five years the highest yields in bushels per acre have been produced by Imperial Amber 45.8, Kharkov 45.6, Gillespie Red 45.2, McBean's Dawson 45.1, Tuscan Island 44.9, Grand Prize 44.7, and American Banner 44.6.

Those varieties of winter wheat which have produced the largest loaves of bread from equal quantities of flour in the average tests of ten years made in the Bakery Branch of the Chemical Department of the College are as follows: Yaroslaf, Banatka, Crimean Red, Tuscan Island, Buda Pesh, Tasmania Red, Egyptian Amber, Kentucky Giant, Rudy, Treadwell, Bulgarian, Geneva and Turkey Red; and those which produced the smallest loaves of bread are the Early Red Clawson and the Abundance.

A cross made between the Dawson's Golden Chaff and the Bulgarian has furnished a new variety which in the last five years has surpassed both its parents in average yield per acre and is about equal to the Bulgarian in bread production. This variety was distributed over Ontario in connection with the co-operative experiments in the autumn of 1916 for the first time under the name of O. A. C. No. 104 and is not yet grown in sufficient quantity in Ontario to be sold commercially. In the co-operative experiments throughout Ontario in the past year, in which five leading varieties were tested, the O. A. C. No. 104 proved to be the most popular with the farmers, the improved Imperial Amber coming second in this respect.

The Petkus variety of winter rye has made the highest record both at the College and in the co-operative experiments throughout Ontario. Winter barley which has been grown at the College in each of the past twenty-four years gave a yield per acre in 1917 of 32.2 bushels, the average for the whole period being about fifty bushels per acre.

Distribution of Material for Experiments in Autumn of 1917.

As long as the supply lasts, material will be distributed free of charge in the order in which the applications are received from Ontario farmers wishing to experiment and to report the results of any of the following tests: 1, three varieties of winter wheat; 2, one variety of winter rye, and one of winter wheat; 3, spring applications of five fertilizers with winter wheat; 4, autumn and spring applications of nitrate of soda and common salt with winter wheat; 5, winter emmer and winter barley; 6, hairy vetches and winter rye as fodder crops. The size of each plot is to be one rod wide by two rods long. Fertilizers will be sent by express for number 4 this autumn, and for number 3 next spring. All seed will be sent by mail except that for Number 4, which will accompany the fertilizers. Agricultural College, Guelph, Ont. C. A. ZAVITZ.

Regularity at School.

EDITOR "THE FARMER'S ADVOCATE":

In this day, when Conservation is the watchword, it is well that attention should be called to a big leak in the country's finances and the mental and physical stamina of the army of teachers throughout the land, and all the school children and older students who love their books and pursue their studies faithfully. A leak which obtains through the failure of perhaps forty per cent. of the school or college population to present themselves in the class room punctually on the opening day and at the opening hour.

Authorities both civic and in the home, where the parents still exercise any authority—and many seem to exercise little—have become more and more lenient in the matter, till conditions have come to such a pass that probably not more than fifty per cent. attendance obtains on the first morning.

The students who make their mark will be found awaiting the first word of instruction on the opening morning. And they make their mark in spite of the drawback throughout the whole year of the laggards who inflict themselves as a drag on the school progress through term after term and year after year. Laggards whose parents, if they take any interest in their children, sometimes stupidly wonder "why Mary or John is not coming along at school", or why they did not come under the promotion tape at the end of the course.

The salary of the teacher and the janitor, the running expenses of the school, the cost of books, now perhaps in total greater than ever before—owing to their multitude—are all the same whether half or all the class is present daily. The time lost by the regular in waiting till the irregular are instructed in what was taught in their absence, are all leaks in the money and mental power of the body politic; and the scores of unlettered, uncultured youths who get out of school without an education are probably, very probably, largely products of irregularity which breeds lack of interest, lack of ambition, lack of courage and lack of industry.

No student, however clever, can do his best by himself by his parents, or by the state and loiter at home, attend the big fairs, or extend his vacation visit after the opening day of school. Teachers of long standing will bear us out in this statement.

Is it not high time then that our school boards, and our pulpits, and our parents and our truant officers, if need be, should form an entente to stop this ruinous waste and conserve for the benefit of the generation now rising and those to follow them, all that is patent for good in the young of to-day, who on the first morning of school should appear in their places?

Norfolk Co., Ont.

S. D. K.

Art in Public Schools.

EDITOR "THE FARMER'S ADVOCATE":

Just now, when every one seems free to pass their opinion on anything, I venture to express mine on the subject of art as taught in the public schools. Does it seem fair that at this year's entrance examination art and history were put on the papers the first for some few years past? I emphatically say it was not, when help is so much needed on the farm. In our school there were three pupils who intended to try the entrance but were thrown out simply because they could not draw, in another section there were seven, but they also were set back by art and history. Now those boys and girls are a great help on the farm, but they have to trudge to school another year if they wish to have an entrance certificate, which most of us like to see our children have, in case some thing happens which will compel them to earn their living in another way besides farming. I studied art when I went to school and I have failed so far to have ever seen any use for it. I think it is after a child passes the entrance that he or she starts out on their chosen profession, and in some cases perhaps art is good but in a great many professions art is never needed, so why should a child be turned down just because he or she cannot draw? I was delighted in reading a speech made by Wm. McDonald, M.P., of Chesley, how he criticized the educational Department for turning a child down for art. I for one will have to do the work that my boy would be doing if art were not introduced to the examination papers.

Another subject is nature study, such a waste of time. Often when children could be engaged in some useful work they are expected to go to the bush and hunt for some simple flower or hunt a worm to see how many legs and teeth it has, or hunt birds' nests to see how differently they build them. Perhaps this trash is all right for those who have no better way of killing time, but they don't help the farmer or his wife any, but rich men generally rule so we have to "grin and bear it," and often men who have no children are stuck in positions to make laws. I would like to draw—yes—draw a good whip around their ears.

Bruce Co., Ont.

ONE FARMER'S WIFE.

[Note.—Of course, all people will never agree on what is best for the schools. Without going into the question of drawing or "art," and without setting forth the real value of nature study we are inclined to favor both for the schools. The latter is certainly helpful if properly taught, taking up weeds, insects, plants, etc., from the standpoint of their economic importance.—Editor.]

production and loosening the feathers. Full rations should then be resumed together with oil-cake meal or beef scraps used in the mash, especially if the birds are confined to a pen. When on free range they secure insects to supply the meat part of the ration. More attention than usual might profitably be given hens during the moulting season.

Guard Against Blackhead.

Blackhead is the disease most dreaded by poultrymen who raise turkeys. It is a contagious disease which affects the liver and caeca, but symptoms do not become apparent until the disease has a firm hold on the bird's system. While some claim they have affected a cure, it is very seldom that the disease yields to treatment, consequently the aim should be to keep the birds strong and vigorous so that should the germs of the disease enter the system they will not find as favorable a lodging place as they would were the birds delicate. It is claimed that damp weather is favorable to the development of the disease. The greatest loss is in the young flock. Those which recover are very often carriers of the disease.

The symptoms of this malady are: the birds first appear less active and have little appetite; diarrhoea is nearly always present, and as the disease advances dullness and weakness become more marked and the birds have a very depressed appearance with the tail and wing feathers drooping. They become listless, and the head becomes discolored. A post mortem examination will reveal the caeca much thickened and clogged with a cheesy content. The liver is usually enlarged and covered with yellowish spots.

When the disease is first noticed the affected birds should be isolated from the main flock, and if the birds succumb they should be immediately buried or burned; in fact, if a bird shows marked symptoms of the disease it would be better to kill it rather than attempt a cure. The flock should be seen every day in order that birds showing symptoms could be removed. Some poultrymen claim that if taken in time there is a chance of saving the birds by giving them muriatic acid. The proportions are one teaspoonful of the acid in one quart of water. This drink should be kept before the birds. A warm feed of moistened shorts in the morning and a grain ration of wheat and oats makes a very good feed. To prevent infection the following has been recommended: Sulphur, 5 grains, and sulphate of iron, 1 grain, or benzo-naphthal, 1 grain, and salicylate of soda, 1 grain. Follow these remedies with a dose of Epsom salts.

This disease exacts a heavy toll from the flocks of the country every year. In order to reduce this loss to a minimum everything possible should be done to keep the growing flock strong and healthy. Don't feed turkeys on the same ground two years in succession, and at no time should young turkeys be fed off the ground. Use a board or trough which can be scalded occasionally. The fences and trees on which the birds roost around the buildings should be thoroughly disinfected. Lime-sulphur, hot whitewash or some commercial disinfectant could be used. It is important that the breeding stock be strong and free from the disease. If buying birds this fall, know the flock from which they come and select birds with every appearance of strong constitutions and vitality.

Place Pullets in Winter Quarters Early.

The general custom is to allow the pullets and cockerels to run together and to roost where they please until the snow flies, then by the light of a lantern the pullets are removed from the trees or small coops and conveyed to the hen-house. The cockerels may be placed in the fattening crate or marketed. This system is not conducive to heavy egg production during the winter. The pullets are not fully developed and the feed goes towards completing growth and keeping the birds warm. Little of the energy is left for egg development. It must be remembered that while the nucleus of the eggs are in the body it takes feed to bring them to full size, to manufacture the white, yolk and shell. Furthermore, undue excitement deters laying. Changing of quarters will have an undesirable effect; consequently the better and more profitable way is to select the pullets that are to be kept and place them in their winter quarters before the end of September so that they will become accustomed to their pen before it is time for them to commence laying. They will be comfortable during the chilly nights of October, and feed will not have to be used to supply fuel to keep up the body heat. A mixture of wheat, oats, buckwheat and corn would make a satisfactory grain ration. As the temperature lowers the quantity of corn could be increased. Bran, shorts, cornmeal and gluten meal, equal parts, with about ten per cent. of beef scrap will make a very good mash to be fed dry or moist. Try to get the pullets laying by November. It will require liberal feeding and proper housing.

The old hens are very often vicious with pullets, and for this reason it is advisable to have two pens so that they can be separated. Too many find poultry raising unprofitable because they do not pay enough attention to the pullets the first year. Good treatment is usually repaid by a liberal supply of eggs.

Heavy Horses and Beef Cattle at the Canadian National.

Throughout a period of two weeks the Canadian National Exhibition entertained a great concourse of people from Ontario and the other Provinces as well as many visitors from other lands. As an annual event of great magnitude and permanency it is admitted to be without a superior in any country. The variety in the exhibits and the thorough way in which every phase of agricultural, industrial, professional and social life are exemplified have brought renown to the institution. The latest and most up-to-the-minute in every line is there displayed, and one requires to keep in touch with such in order to live in the present rather than in the past. The attracting features of the second week were, perhaps, better than the first. The heavy horses and the beef breeds of cattle drew many to the ring-side, and while the former were not so strong numerically as in past years the judging ring was an interesting spot during the second week of the Fair. The harvest and other work made it difficult for farmers to attend in large numbers, but those who were able to spend a day or two at the Toronto Fair this year should have felt well repaid. Altogether the attendance held up well and crowded the record of 1913 when the million milestone was reached and passed.

Heavy Horses.

The entries in the heavy-horse classes were rather disappointing in point of numbers, but this did not detract from the quality of individuals brought out. Pessimists saw in the small classes the passing of the heavy draft horse and his place on the farm taken by the iron horse, but numbers are no criterion on which to base this conclusion. Importations have been practically cut off and the scarcity of help and lateness of harvest made it impossible for many breeders to fit and show their horses. There were many show horses in their home stables. When conditions become normal we predict that the classes at the Canadian National will again be filled to overflowing with animals of choice quality. There were a number of excellent Canadian-bred Clydesdales in the various classes. Substance, quality and action were found in many individuals. Percherons are gaining in numbers. The aged-stallion class was the strongest at the show. This breed is gradually gaining in favor as the quality of underpinning is improved. Fewer people than usual were present to see their favorite breed judged. This is not due to lack of interest so much as to prevailing conditions. Farmers were busy garnering their crops this year.

Percherons.—The Percheron breed was not so largely represented as it was last year. There were only thirty-four animals competing, but most of these were typey individuals with heavy muscling and excellent quality. Several were a little plain and groggy, but were not what would be called inferior animals. There was a large entry in the aged stallion and brood mare classes. History repeated itself in that Irade, the grand champion in 1916 again secured the honors. In the female classes, Lady Impresse, the reserve last year was grand champion. Cormier, the fifteen-year-old stallion of Wm. Pears, headed a string of five which won out. This aged horse with long, white tail and mane attracted attention. The winners in the female classes were sired by this horse.

The quality of the Percherons, on the whole, which are exhibited in Canadian show-rings is improving without decreasing the draftiness of the animals. It is a heavy draft breed which is light on the feet. W. A. Drennan of Kenora, Saskatchewan, made the awards.

Irade, a big, well-proportioned horse with high-quality underpinning headed the aged-stallion class, and was also made champion. He has an attractive bearing and carries himself gracefully. For a horse of such substance he is a free, true mover. In second place stood Lyon, a strong-topped, deep-ribbed horse with quality right to the ground. He had broad, deep feet but travelled plenty wide enough in front. Ecureuil, a stablemate of the second-prize horse, was a little longer-coupled and nicely turned, but was inclined to throw his feet a little when trotting. The fourth horse, Jeantes, did not have the substance of the other two but had flat, heavily-muscled legs and splendid feet. Three good sires were below him.

Dandy, the winner of the three-year-old class had quality throughout. He was an attractive horse with a well-sprung, deep rib, and a smooth, evenly-turned croup. He had snappy action and little fault could be found with the underpinning. In second place stood Andy, a rangier horse with scarcely the depth of rib of the winner. His feet were not so deep at the heel. Next to him was a horse that had rather stilty action and lacked in spread of feet.

Two very nicely-turned fillies represented the two-year-old class. Lady Lorraine moved true and snappy on a set of broad, deep feet. She was a lengthy mare which made her appear a little shallow in the body, although seen by herself she would not be faulted.

The aged-mare class brought out several typey animals with substance, quality and style. Lady Impresse, a beautiful mare with a nicely-turned, well-proportioned body, supported on flat, clean legs was placed first, and she was later given the championship. She was a very thick-fronted mare and her front legs were set out a shade too much. However, she showed springy, trappy action. Marguerite, in second place, was a deep, thick, heavily-muscled mare with good quarters. The mares below her were big, useful mares, but were a little plainer than the winner.

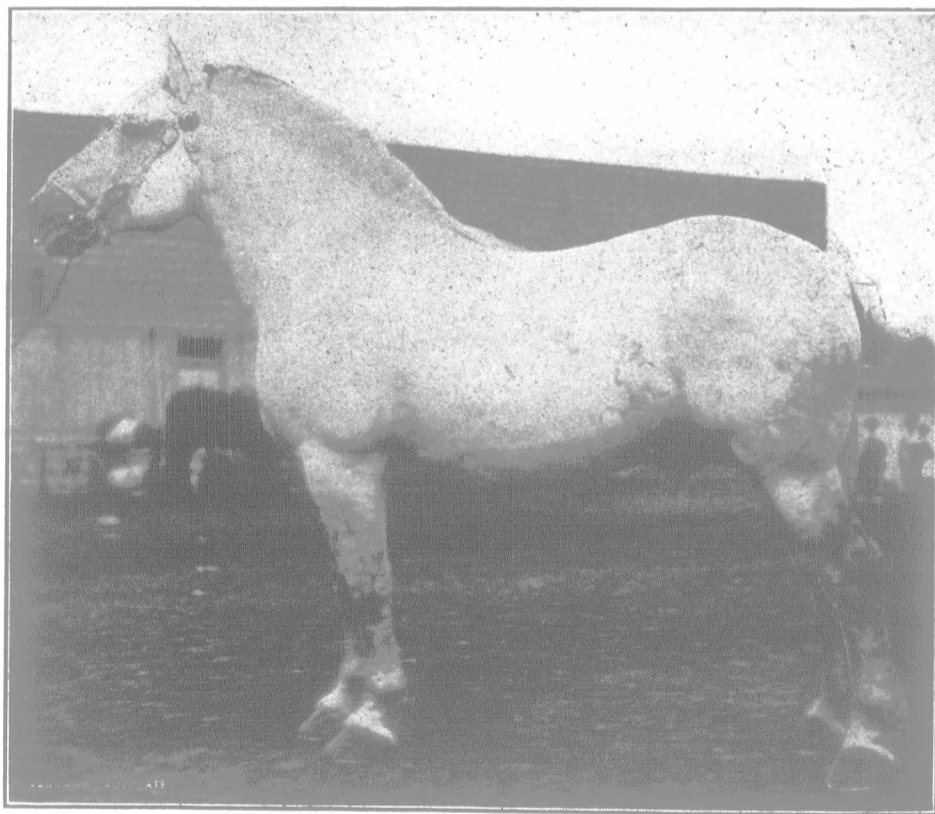
There were only two in the yeld-mare class, but they were nice ones. Lady Julia, a deep-ribbed, fine-quality mare won the class and gave Lady Impresse a run for the highest honors. She had free, springy action and travelled true. Her oblique shoulders and well-shaped ankles gave ease to her movement. Queen Marion was no mean mare. She was a little longer in the body and barely as deep-ribbed as the winner.

The 1917 colts were a typey, growthy lot. Owing to difference in age there was lack of uniformity in size, but that did not detract from the quality of the individuals.

Exhibitors.—David Fountain, Weston; J. B. Hogate, Weston; T. D. Elliott, Bolton; Wm. Pears, West Toronto, Wm. G. Hill & Sons, Queensville; Wm. A. Henry & Son, Keswick; Robt. H. Livingston, Woodbridge; A. W. Dobson, Weston; Wm. Roberts & Sons, Peterboro.

Awards.—Aged stallion, (7 in class): 1, Elliott, on Irade; 2 and 3, Hill, on Lyon and Ecureuil; 4, Fountain, on Jeantes. Stallion, three years, (4): 1, Livingston, on Dandy; 2 and 3, Hogate, on Andy and Benjamin J.; 4, Henry, on Chieftain. Stallion, two years, Hill, on Lloyd George. Stallion, one year, (2): 1 and 2, Henry, on Lord Greffier and Lord Keswick.

Filly, three years, Dobson, on May Flower. Filly, two years, (2): 1, Pears, on Lady Lorraine; 2, Roberts, on Queen Marguerite. Filly, one year, (2): 1, Pears, on Lady Margaret; 2, Dobson, on Queen Victoria. Brood mare, (6): 1, Pears, on Lady Impresse; 2, Roberts, on Marguerite; 3, Hill, on Apple; 4, Dobson, on Kalmonck. Yeld mare, (2): 1, Pears, on Lady Julia; 2, Henry, on Queen Marion. Foal, (7): 1 and 2, Hill, on Apple Blossom and Patricia Pet; 3, Pears, on Lady Trixie. Mare and two of her progeny, (3): 1, Roberts; 2 and 3, Dobson. Best string of five, Pears. Grand champion stallion, Elliott, on Irade. Reserve, Hill, on Lyon. Grand champion mare, Pears, on Lady Impresse. Reserve, Lady Julia.



Irade.

First in class of seven and champion Percheron stallion at Toronto. Exhibited by T. D. Elliott, Bolton, Ont.

Clydesdales.—Annual visitors to the Clydesdale judging ring at the National were somewhat disappointed in the number of entries in the various classes, there being only thirty-seven animals brought out. However, the quality of the individuals was on a par with past years. The line-up changes considerably from year to year. While a few winners and champions of by-gone days graced the ring, the majority of the competitors were new blood, some of them the progeny of noted show horses. In the two aged-stallion classes sons of Baron's Pride were the winners. A daughter of Baron of Buchlyvie won the yeld mare class, and Lord Gleniffer's get made a good showing. The Clydesdale is the favorite heavy-draft horse in Canada. In it substance, fine quality and trappy action are combined. The type, conformation and finish of this year's entries were uniformly good. John A. Boag, of Queensville, was the judge.

Three entries in the aged-stallion class were from Graham Bros' stable. They were big, massive horses, and two of them had excellent underpinning and were able to move with ease. Baron Stamp was a heavily-muscled horse and had a trifle more desirable pasterns than the other two. In the class which barred importers, Baron Minto was the winner. He was a beautiful horse, with a well-proportioned body. For a horse of his age he had splendid quality and carried himself well. In second place stood Dunure Captain, also a big horse with masculine appearance. He had large, deep feet but was not as true or sprightly a mover as the horse placed above or below him. On Guard made a favorable impression and was picked by many for first

place. He had an aristocratic bearing and very little fault could be found with his underpinning or action. He still knows how to use his hocks and knees and his whole make-up indicated quality. Below him were two good sires with substance and quality, but they were not so free travellers as their companions.

Three typey, well-proportioned horses from the Claremont stables represented the three-year-old class. They all had flat, clean-boned legs with fine, silky feathering. If feet are any indication of the horse, these three are right good ones, and they know how a Clydesdale is expected to move. Auchenhavrie was placed first. He was a shade rangier than Reminder, but he was well-ribbed up.

Mendel Prince was alone in the two-year-old class, but it would have taken something extra good to win over him. In fact, he won over all others and secured the championship. He has developed into a beauty.

The yearlings were headed by Lordly Ascot, a smooth, well-proportioned, strong-topped colt. Royal of Denholmhill, a deep-ribbed, heavily-muscled colt was second.

Belle Baron, a mare that travelled true and snappy, was first of the three-year-old fillies. She was a mare with substance and quality, and was heavily-muscled throughout, especially over the loin. The underpinning could not be much improved. A little longer-coupled mare, and a shade plainer at the head, stood second in Diana's Choice. She was a fine-quality mare with legs set nicely under her. She had a splendid set of ankles and feet. In third place was a thick-bodied mare that was deeply-ribbed up. While her feet and legs were good quality, the pasterns were a trifle straighter than those of the other two.

Mendel Queen and Mendel Princess were strong competitors for first place in the two-year-old class. Both were ripe, nice-quality fillies, with desirable type, conformation and quality. Both carried themselves true and were active on their feet. The former won the class and later was the choice for the championship. A well-muscled mare with more scale, but barely the quality, was third.

Four promising fillies were out in the yearling class. Prairie Bill, a nicely-turned, well-proportioned colt, was first, with her stablemate, Darling Princess, second. Both were deep, thick-bodied colts with flat, clean bone, sloping pasterns and desirable-shaped feet. One would have to search a long time to find a much better colt than the winner. Her clean-cut, angular hocks, well-turned ankles, and splendid hoof-head would be hard to improve. Darling Princess was a shade heavier build throughout, but the quality was there. The third colt was more upstanding and was not so trim in conformation.

Four matrons with foals by their side answered the call for brood mares. Royalette, a mare which has secured the highest honors on different occasions, was again a competitor. She was a big, thick, blocky mare and few could travel as straight and snappy. She was a right good mare and won her class. Black Princess, an active mare with splendid body, feet and legs, but barely as stylish, was second. Two useful mares stood third and fourth. Tangy Maid possessed higher quality underpinning than did Newbigging Beauty. However the latter had a splendid foal by her side, which was proof of her value as a breeder.

There were three high-quality mares in the yeld class. Quenelda of Petty was the pick of the lot. She was a beautiful mare, with smooth, well-proportioned body. The quality of bone and feet was of the finest and she was a free, graceful traveller. There was no discount to the type and quality of Brampton Ethel Lowrie, but she lacked in trimness as compared with the winner. Rivulet, in third place, was a deep, thick mare, heavily-muscled but her pasterns were a little straighter than the other two.

The foals were not a particularly uniform lot. There were several good ones but others were rather inferior, although in another year there may be a big improvement in quality and appearance. Glenholm Gleniffer, a son of Royalette, a big, strong foal, was first, with Betty Matchless, a fine, typey colt, second.

Exhibitors.—Sir H. M. Pellatt, King; Graham Bros., Claremont; J. Leonard, Schomberg; M. McPhaden, Cresswell; A. G. Gormley, Unionville; Peterson Bros., Agincourt; W. W. Hogg, Thamesford; Bater Bros., Oakville; W. E. Jewell, Bowmanville; Robt. Duff & Son,

Myrtle; L. John Brown

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Myrtle; L. J. C. Bull, Brampton; W. F. Batty, Brooklin; John Brown & Sons, Galt; N. & L. Davies, Don Mills Rd.

Awards.—Aged stallions, (3 in class): 1, 2 and 3, Graham Bros., on Baron Stamp, by Baron's Pride, Alert by Baron's Pride, and Royal Cadet by Montrave Matador. Stallion, aged, importers excluded, (5): 1, Leonard, on Baron Minto by Baron's Pride; 2, Gormley, on Dunure Captain by Baron of Buchlyvie; 3, Pellatt, on On Guard by Prince Sturdy; 4, Peterson, on Dunure Gulf Stream by Hiawatha; 5, McPhaden, on Phil by Penelanta. Stallion, three years, (3): 1, 2 and 3, Graham Bros., on Auchenharvie by Auchenflower, Reminder by Dunure Diamond, and Chief Guardian by Baron of Burgie. Stallion, two years: 1, Graham Bros., on Mendel Prince by Mendel. Stallion, one year, (3): 1, Graham Bros., on Lordly Ascot by Baron Ascot; 2, Hogg, on Royal of Denholmhill by Dunure Friendship; 3, Bater Bros., on Lookout 2nd, by Lovely Baron.

Filly, three years, (3): 1, Jewell, on Belle Baron by Baron's Best; 2, Graham Bros., on Diana's Choice by Scotland's Choice; 3, Hogg, on Denholmhill Blossom by Marmorides. Filly, two years, (3): 1, Graham Bros., on Mendel Queen by Mendel; 2, Duff, on Mendel Princess by Mendel; 3, Bull, on Marathon Belle by Marathon. Filly, one year, (4): 1 and 2, Duff, on Prairie Bill, by Lord Gleniffer, and Darling Princess by Royal Baron; 3, Jewell, on Rose Baron by Baron's Best; 4, Davies, on Lady Lochfergus by Meteor. Brood mare, (4): 1, Hogg, on Royalette by Royal Edward; 2, Pellatt, on Black Princess by Marmion; 3, Jewell, on Tangy Maid by Toredeal; 4, Batty, on Newbigging Beauty by Ahtualpa. Foal, (5): 1, Hogg, on Denholm Gleniffer by Lord Gleniffer; 2, Brown, on Betty Matchless by Chester Prince; 3, Pellatt, on Lord Roberts by On Guard; 4, Batty, on Sir Gleniffer by Lord Gleniffer. Yeld Mare, (3): 1, Pellatt, on Quemelda of Petty by Baron of Buchlyvie; 2, Bull, on Brampton Ethel Lowrie by Everlasting; 3, Bater, on Rivulet by Maceachran. Mare and two of her progeny: 1, Jewell, on Tangy Maid; 2, Batty, on Newbigging Beauty; 3, Hogg, on Royalette. Champion stallion: Graham Bros., on Mendel Prince. Champion mare: Graham Bros., on Mendel Queen. Best Canadian-bred Clydesdale stallion: Graham Bros., on Sir Leonard 2nd. Best Canadian-bred mare: Batty, on Halma. String of five: Graham Bros.

Heavy Draft.—Although pure-breds of any heavy-draft breed, bred in Canada, were eligible to show in the heavy-draft class, the entries were confined to Clydesdales. Frequenters of the judging ring had an opportunity of seeing some real toppers in the various classes. Fillies of the stamp of Woodside Rosalind and Halma are not seen every day, nor are heavy-draft mares of the type and build of Lady Bydand common. Splendid type and conformation with quality right to the ground characterized the bulk of the entries. There was keener competition in some of the heavy-draft classes than there was in the open classes. The foals in particular were a more uniform, breezy lot. Canadian-bred Clydesdales do not have to take second place where quality and action are considered. While one or two of the entries were not very well fitted, the majority of the animals were brought out in excellent show form.

Gartly Favorite, was the only entry in the aged-stallion class. He was a horse with plenty of substance and rather an attractive bearing, but he could have been improved somewhat at the ground.

Sir Leonard 2nd was first in the two-year-old class. He was a horse of excellent conformation and a very fine expression in the head; quality was combined with strong bone and broad, deep feet, so much desired by Clydesdale men. In second place was Royal Marathon, a short-coupled, strong-backed horse, with fairly free action. A rangier horse, a little straight in the pasterns, stood third.

Prince Ascot had no competition in the yearling class. He was a right good colt and was well brought out. He will make a horse with plenty of substance and the quality of bone and feet is of the best.

It is not every day that one is privileged to see as stylish, well-turned filly as represented the three-year-old filly class in Woodside Rosalind. She had clean, angular hocks and could use them to advantage. The obliquity of shoulder and pastern gave her freedom of action as she carried herself in an attractive manner. She had a splendid set of deep, broad feet, well developed at the hoof-head.

There were three entries in the two-year-old filly class. Sadie Roxburgh was placed first. She was a mare with good foundation but might be a little deeper in the body. However, she was a big colt and travelled straight and true. Mollie May, a beautifully-turned mare but a little smaller than the winner, was placed second. Her underpinning could not be faulted much, but she did not travel as free as she might have. Brampton Favorite was third. She was a plainer mare than the other two and a little stilty in action.

Four yearling fillies made a good class; Halma's place at the top was undisputed. She was an attractive colt. The cords on her legs were well set out; her feet were nicely-shaped and she travelled true and snappy. She was considered the best heavy draft mare, any age, at the Show. Brampton Nellie Scott, in second place, was not quite so well fitted but she was a colt of splendid conformation. In third place was a smaller animal but she was well-ribbed up and had a good set of legs and feet.

There were only two entries in the class for brood mares. Lady Bydand was easily first. She was a show mare with a well-balanced body, strong top, supported on a set of clean, flinty-boned legs and deep, broad feet. She travelled particularly straight and showed excellent action at knees and hocks. Miss Fashion, in

second place, was a mare with very good quality throughout.

There were four entries in the class for brood mares with foal at their side. Heather Bell was picked for first place. She was a strong-topped, well-coupled mare, with smoothness and finish throughout. She had excellent underpinning and trappy action. In second place was Dorothy Pride of New Mills, a mare with fair quality but a little out of condition, although little fault could be found with her bone and muscling.

There were four typey, growthy colts brought into the ring. They made a better showing than those exhibited in the open class. R. C. Grandy secured first, on the offspring of Heather Bell, the winner in the brood-mare class. He was a particularly well-made colt with a splendid set of legs. Very little fault could be found with the quality of any of the entries.

Exhibitors.—W. G. Bailey, Campbell's Cross; J. C. Bull, Brampton; Graham Bros., Claremont; J. Telfer, Milton West; W. F. Batty, Brooklin; Sir H. M. Pellatt, King; R. Duff & Son, Myrtle; J. F. Husband, Eden Mills; Jas. White, Agincourt; Wm. Coon, Tottenham; City Dairy Farms, New Lowell; Geo. M. Anderson, Guelph; R. C. Grandy, Ida; Jno. Brown & Sons, Galt.

Awards.—Aged stallion: 1, Bailey, on Gartley Favorite by Monteith Favorite. Stallion, two years, (3): 1, Graham Bros., on Sir Leonard 2nd by Sir Leonard; 2, Telfer, on Royal Marathon by Marathon; 3, Bull, on Gay Carruchan by Gallant Carruchan. Stallion, one year: Batty, on Prince Ascot by Baron Ascot. Filly, three years: 1, Pellatt, on Woodside Rosalind by Sir Spencer. Filly, two years, (3): 1, Duff, on Sadie Roxburgh by Royal Freeand; 2, Batty, on Mollie May by Gallant Carruchan; 3, Bull, on Brampton Favorite by Golden Favorite. Filly, one year, (4): 1, Batty, on Halma, by Lord Gleniffer; 2, Bull, on Brampton Nellie Scott by Lord Scott; 3, Husband, on Queen of Craighdon, by Prince of Craighdon; 4, White, on Dolly of Cloughton Grange by Land O'Ken. Draft mare, (2): 1, Pellatt, on Lady Bydand, by Bydand; 2, Coon, on Miss Fashion by Torris Fashion. Brood mare, with foal, (5): 1, Grandy, on Heather Bell by Upperton Prince; 2, Anderson, on Dorothy Pride of New Mills by Pride of New Mills; 3, Brown, on Viola Matchless by Castle King; 4, City Dairy Farms, on Darley Bess by Baron Quality. Foals, (4): 1, Grandy; 2, White; 3, Anderson; 4, City Dairy Farms. Mare, with two of her progeny: White. Best heavy draft stallion: Graham Bros., on Sir Leonard 2nd. Best draft mare: Batty, on Halma.

Shires.—There was less competition than usual in the Shire classes. Johnston Bros., of Croton, were the only exhibitors. King Junior was shown in the aged-stallion class. He was a big horse, showing a good deal of quality. Prince Charles of Lambton was shown in the three-year-old class. He was a clean-limbed horse with angular hocks and good feet. Dewston Fuchsia was placed over her stablemate, Gray Fuchsia. They were both big, typey mares, showing a good deal of quality and ability to move in a satisfactory manner. Their foals were growthy youngsters.

General-Purpose.—There is always a class at the National in which the general-purpose horse can be shown. The horse shown under this classification must be exhibited by a person engaged in agricultural pursuits and be suitable for either wagon, carriage, saddle or plow. Mares and geldings, four years old and upwards, must be over 1,200 pounds in weight and not exceed 1,350 pounds. Three-year-olds, 1,200 pounds, and two-year-olds, 1,000 pounds. The entries in this class were not large, although a few good horses were brought out.

Exhibitors.—Wm. Roberts & Sons, Peterboro; J. W. Cantelon, Hornby; Fred Wrigglesworth, Georgetown; Jas. Tilt, Brampton; Bater Bros., Oakville.

Awards.—Mare or gelding, aged: 1 and 2, Roberts; 3, Cantelon. Filly or gelding, three years: 1, Wrigglesworth; 2, Roberts. Brood mare with her foal: 1, Roberts 2, Tilt; 3, Bater Bros. Foal: 1, Bater Bros.; 2, Tilt. Best mare, any age: Roberts.

In the general-purpose class, hitched to a lorry, Roberts & Sons secured first and second in the class for single geldings or mares, and D. C. Meyers, West Toronto, was third. In the class for a pair of geldings or mares, Roberts & Sons were the only exhibitors.

Beef Cattle.

It has been several years since as good an exhibit of beef cattle was displayed at the Canadian National as that about which we are to write. In the stables, with their blankets on, it is impossible to accurately judge the general tone of the effort for numbers are not everything. They must be seen in show form in the ring before a trustworthy conclusion can be drawn. Briefly the Shorthorns were on a par and better in many respects than last year; the Herefords were better fitted, and the Aberdeen-Angus, which are usually well fitted, came out in strong numbers, making large classes, where uniformity was outstanding. It was a very creditable display indeed of the leading breeds of beef cattle.

Shorthorns.—The Shorthorn exhibit of 1917 was a surprise to those who have kept in touch with the trade. It was to be expected that, after a season of many sales and the heavy exodus of Shorthorns to the United States, the exhibit would be small. Feed and labor were two other factors to be considered. In spite of all these circumstances the breeders came forward with an array of cattle that surpassed the display of last year and rivalled, both in quality and numbers, the remarkable exhibit of 1915. Apparently Shorthorn men have kept some good things under their hats, so to speak, or back in the bush, when buyers came round; otherwise the success of the recent event would not have been possible.

There was a noticeable degree of uniformity throughout the different classes, and yet there appeared to be some leading individuals in every line-up which made the

judging a less arduous task. F. W. Harding, Secretary of the American Shorthorn Breeders' Association, made the awards and did consistent work. A number of the first prizes in the younger things went to John Gardhouse and Sons, on animals all of their own breeding. J. A. Watt, of Elora, was quite successful and J. J. Elliott, a new exhibitor at Toronto, captured two championships and several red ribbons. A fairly wide distribution of honors was made, regarding which the list of awards will convey further information. It was a splendid exhibit, exceeding last year's by twenty animals, and it is a tribute to the Shorthorn as a breed when they can come out so strong at such a time. Another interesting feature was the number of new names appearing in the list of exhibitors.

The first surprise on Shorthorn day was the number of aged bulls forward. Five is the regulation number for the Canadian National. Last year there were only two, but in the event about which we write seven lined up. The winner requires no introduction; it was Gainford Marquis, the dean of Canadian show bulls. Since his defeat when a senior yearling by Ringmaster, in 1911, he has never taken second place and he still dominates the ring with a remarkable amount of flesh and bloom for a bull approaching his eighth birthday. Lancaster Lad, rightly went into second place. With Gainford Marquis absent it would be a very strong class of bulls in this country that Lancaster Lad could not lead. He is a straight, low-set, nicely-fleshed animal of splendid type. Sea Gem's Pride was another of the good ones in the class, and while he had many qualifications he was not quite so well balanced as the second-prize winner. There was a line of cleavage between these three and the four below. Royal Sultan in fourth place was a smaller bull, not so good in constitution or so well blocked out. The company was too strong for him. Salem King, the last of the five winners, had considerable substance but in comparison lacked quality and did not appeal.

The Guelph herd contributed the winner in the two-year-old class. This was Newton Loyalist, a light roan of good type and considerable promise. Royal Scot was the next best, but could not go higher on account of being a trifle more shallow and plainer behind. Good Finder, last year's winning junior yearling, was placed third. He has a good body but he lacked bloom, and that breed character about the head which a sire should have. Comet, a good backed bull was fourth, and Moneyfuffel King fifth; both would be improved by more depth. It was not a strong class of bulls.

Three good bulls came forward in the senior yearling class, but the struggle was between Belmont Beau and St. Augustine. While the latter was an attractive individual on account of the bloom he carried, and the breed character he possessed, he had a minor fault which worked to his disadvantage. He was slightly high at the tail-head. Belmont Beau was endowed with all the qualities looked for in a good bull and rightly led the class. The same was a strong candidate for the junior championship. Had he received it, it would have been no surprise to the breeders present.

Sultan's Choice was selected from eight junior yearlings as the recipient of the red ribbon. He is a red-roan in color, with plenty of scale and good quality. He could be a little better turned behind. Sultan Butterfly, the blue-ribbon bull, was a smooth animal, light roan in color, while Ringleader Choice, of much the same type, was third.

The senior-calf class was not so strong as last year, when fifteen candidates of good quality were forward. In the recent line-up there were ten entries, which, however, made an attractive exhibit. Gainford Matchless, the get of Gainford Marquis, was easily first. The old bull has imparted many of his good points to this calf, and when age brings him a little more balance he should make a strong show bull. There were another ten forward in the junior-bull-calf class, where Sultan Royal, with splendid quality and straight lines, was proclaimed the best. He likewise annexed the junior championship honors.

The aged cows were a superior class, seven in number. Some were of the large, massive kind, but these, as frequently happens when substance is acquired, were not so smooth. Princess Victoria was the nearest to a compromise between weight and quality, so she was moved into first place. The second place of honor went to Oak Bluff Melba 2nd, which could have won a more distinguishing favor had she been a trifle larger. She is a smooth, trim cow but a shade small for strong company. Village Maid 3rd, was a deeper individual with more substance, which was however, not quite so evenly distributed; withal, she was a good one. Lady Madge 5th, would show better if she carried her width back more to the quarters, but as it was she went into fourth place and Irvine Emmeline, a large cow but rather plain behind, was fifth.

The two-year-old heifers were led by a strong individual from the Guelph herd, Roan Lady. She was good enough for senior championship, but not for grand. She was right in her lines and a good roan color, but showed a tendency to patchiness at the tail-head. Thelma 3rd, in second place, was much lower set and while she is a sweet, typey thing she did not promise so much outcome as did others in the class. The candidate for third place and winner of same was Countess Selma 2nd, which, by comparison, was a trifle patchy behind and not so smooth along the back.

The outstanding female of the exhibit was Rosa Hope 21st, an animal to which Right Sort, her sire, imparted splendid fleshing qualities, and a rich roan color. She won in her class of seven yearling heifers, as well as the junior and grand championships. It required an extra good heifer in this class to defeat Roan Beauty 2nd, a roan from the Moffat herd. This

young thing was a splendid handler, well fleshed and carrying grand quarters, but her head did not appeal quite so much as that of the winner. Roan Lady 9th, was a little younger than the company she was in but showed to good advantage in third place.

There were an even dozen junior yearlings brought into line. Lady Secret, a sweet, well-fleshed, low-set heifer, by Gainford Marquis, was given the red ribbon, while the blue went to Roan Lady 10th, a Lavender-Sultan calf which would be considered one of the good things. A little more thickness and width behind, however, would make her a stronger candidate. Golden Lady, by Bapton Mandolin, was third from the top, with many qualifications. She was a good heifer.

The senior-heifer class numbered thirteen and made a good showing. These were led by Gainford Belle, an appealing white heifer of splendid lines and much promise. Another white calf won the junior class where eleven came forward. This was Roan Lady 11th, a Lavender-Sultan calf and a good thing.

Each year one class of cows or heifers, (dual-purpose) in milk, are called out. There appears to be no definite type fixed in the mind of judges in respect to such a class so the breeders lead out whatever they happen to have with a fairly good udder. The judge usually does the best he can with the material presented and lets it go at that. If a scale of points could be agreed upon and a type established these classes would have some educative value; as it is judges do not seem to agree on the amount of stress they should lay on beef conformation and milking capacity.

Exhibitors.—Thos. L. Herod, Caledonia; Wm. Marquis & Son, Sunderland; J. A. Watt, Elora; Jas. Leask & Sons, Seagrave; Kyle Bros., Drumbo; Keith Bros., Salem; T. A. Russell, Downsview; W. C. Edwards & Co., Rockland; J. J. Elliott, Guelph; Wallace E. Gibb, Embro; D. Douglas & Sons, Mitchell; Geo. Amos, & Sons, Moffat; J. M. Gardhouse, Weston; Gerrie Bros., Elora; Pritchard Bros., Elora; A. G. Farrow, Oakville; John Gardhouse & Sons, Weston; Jacob Lerch, Preston; John Brown & Sons, Galt; Jas. R. Fallis, Brampton.

Awards.—Aged bull, (7 in the class): 1 and 6, Watt, on Gainford Marquis and Excelsior; 2, Marquis on Lancaster Lad; 3, Kyle, on Sea Gem's Pride; 4, Leask on Royal Sultan; 5, Keith, on Clifford King. Bull, 2 years, (5): 1, Elliott, on Newton Loyalist; 2, Russell, on Royal Scot; 3, Edwards, on Gold Finder; 4, Douglas, on Comet; 5, Leask, on Moneyfuffel King. Bull, senior yearling, (3): 1, Amos, on Belmont Beau; 2, J. M. Gardhouse, on St. Augustine; 3, Elliott, on Ringleader Champion. Bull, junior yearling, (8): 1, Gardhouse & Sons, on Sultan's Choice; 2, Pritchard, on Sultan Butterfly; 3, Elliott, on Ringleader Choice; 4, Gerrie, on Silver King; 5, Edwards, on White Prince; 6, Amos, on Newton Grand Champion. Bull, senior calf, (10): 1, Gerrie, on Gainford Matchless; 2 and 4, Gardhouse & Sons, on Sultan's Hero and Rosebud Sultan; 3, Edwards, on Gloster's Hero; 5, J. M. Gardhouse, on Signal Chief; 6, Amos, on Walnut Victor; 7, Kyle, on Spring Valley; 8, Elliott, on Rosebud Choice. Bull, junior calf, (10): 1, Gardhouse & Sons, on Sultan's Royal; 2, Farrow, on Pride of Escana; 3 and 7, Kyle, on Matchless Billy and Red Ramsden; 4, and 6, Amos, on Escana Marksman and Imperial Scot; 5, Lerch, on Roan Chief; 8, Gerrie, on Golden Selection. Senior and grand champion bull: Watt, on Gainford Marquis. Junior champion bull: Gardhouse & Sons, on Sultan Royal. Cow, 3 years and over, (7): 1, Farrow, on Princess Victoria; 2, Watt, on Oak Bluff Melba 2nd; 3, Kyle, on Village Maid 3rd; 4, Pritchard, on Lady Madge 5th; 5 and 6, Elliott, on Irvine Emmeline and Victor C. 75th; 7, Gardhouse & Sons, on Broadhooks' Rose 3rd. Heifer, 2 years, (6): 1, Elliott, on Roan Lady; 2, 3 and 5, Watt, on Thelma 3rd, Countess Selma 2nd and Duchess of Gloster 79th; 4, Kyle, on Lady of the Valley 9th; 6, Gardhouse & Sons, on Silver Queen; 7, Pritchard, on Mag. Heifer, senior yearling, (7): 1 and 7, Elliott, on Rosa Hope 21st and Cecilia Lass; 2, Amos, on Roan Beauty 2nd; 3, Gardhouse & Sons, on Roan Lady 9th, 4 and 6, Watt on Glenholme Lady and Escana Beauty 3rd; 5, Gerrie, on Polly Lind. Heifer, junior yearling, (12): 1, Watt, on Lady Secret; 2, Gardhouse & Sons, on Roan Lady 10th; 3, Edwards, on Golden Lady; 4, Amos, on Trout Creek Sea Weed; 5 and 6, Kyle, on Golden Drop and Spring Valley Dorothea; 7, Elliott, on Ringleader's Rosebud; 8, Pritchard, on White Star. Heifer, senior calf, (13): 1, Watt, on Gainford Belle; 2, Gardhouse & Sons on Sultan Lady; 3 and 6, Gerrie, on Royal Princess and Gainford Princess; 4, Elliott, on Graceful Lady; 5, J. M. Gardhouse, on Columbia 9th; 7, Edwards, on Pine Grove Clipper 23rd; 8, Kyle, on Village Maid 40th. Heifer, junior calf, (11): 1, Gardhouse & Sons, on Roan Lady 11th; 2, Elliott, on Cecilia Queen; 3, Watt, on Gainford Silver; 4, Lerch, on Matchless Princess; 5 and 8, Kyle, on Spring Valley Lovely 2nd and Spring Valley Missie 4th; 6, Edwards, on Emma 62nd; 7, Amos, on Merry Lass 15th. Senior champion female: Elliott, on Roan Lady. Junior and grand champion female: Elliott, on Rosa Hope 21st. Graded herd, (4): 1 and 4, Watt; 2, Elliott; 3, Kyle. Junior herd, (6): 1, Gardhouse; 2, Watt; 3, Amos; 4, Edwards; 5, Elliott; 6, Kyle. Breeder's herd, (5): 1, Gardhouse & Sons; 2, Watt; 3, Edwards; 4, Kyle. Best 4 calves, bred and owned by exhibitor, (5): 1, Gardhouse & Sons; 2, Watt; 3, Kyle; 4, Edwards; 5, Elliott. Best three animals, get of one sire, (7): 1 and 4, Watt on get of Gainford Marquis; 2, Gardhouse & Sons on get of Lavender Sultan; 3, Edwards, on get of Bapton Manoline; 6, Kyle, on get of Newton Ringleader. Best two animals, progeny of one cow, 1 and 3, Gardhouse & Sons; 2, Amos; 4, Kyle; 5, Edwards; 6, Pritchard. Cow or heifer, (dual-purpose), 2 years or over, in milk: 1, Pritchard, on Lady Butterfly; 2, Fallis, on Mayflower; 3 and 5, Lerch, on Elsie and Lady

Primrose; 4, Gardhouse & Sons, on Broadhook's Jilt; 6, Amos, on Princess Mysie. Steer, 2 years, sired by a registered Shorthorn: 1 and 2, Russell; 3 and 4, Pritchard. Steer, 1 year; 1, 2 and 3, Russell; 4, Brown & Sons; 5, Marquis. Steer, under 1 year: 1, Pritchard; 2, Russell; 3, Brown & Sons; 4, Lerch.

Herefords.—There has been a Hereford awakening in Canada during the last couple of years and its effect on the breed was noticeable in the recent exhibit. No new names were included in the list of exhibitors, but there was an improvement shown in the way the younger stuff was brought out and the zest put into the friendly competition which ensued. Much of this revival is emanating from the West where energetic men are putting good money into show herds and fitting them. When Ontario breeders go West for conquest they must be well armed, or, in other words, they are obliged to take good animals properly fitted. They usually come back to Toronto where they are met by other Ontario herds, which must also be in show form to compete at all with those returning from the Western show circuit. Through an indirect route "Westernism" will reach this Province and the breeders will be awakened from the semi-comatose state in which they have been drifting. They have good cattle and only require more energetic efforts to retain for Ontario the honor of being the headquarters for the Hereford breed in Canada. These remarks are penned as a warning rather than as criticism.

A vast improvement over the 1916 exhibit was noticeable last week, principally in the classes for bull calves and all the females. The young stuff was very much better fitted, which gave it an exceedingly higher tone. In aged bulls, the supremacy of Bonnie Brae 31st was not challenged. For an animal past his seventh birthday, and so low set and massive, he moves around with remarkable ease, considering also that he has been several times fitted for show purposes and let down. Once more he was senior and grand champion bull. Lord Fairfax was another massive, low-set animal, but he did not possess the scale or substance of Bonnie Brae 31st. He was placed second. Bonnie Ingleside 7th, and Brae Real 3rd were given third and fourth positions. The former was slightly longer and more upstanding than his competitors, while the latter was a good bull but the smallest of the class. The two-year-olds and senior yearling classes only had one entry each with nothing outstanding in either. In the junior-yearling class, High Ideal, was an easy winner over Brae Real 8th. The successful one here is a promising, strong young fellow that was good enough for junior champion over Lord Fairfax 5th, the winning senior calf, that was so formidable throughout the Western show circuit this past summer. Lord Fairfax 5th was junior and reserve grand until he reached Toronto but there he was obliged to remain as winner of his class. Reliance 3rd and Reliance 4th, two good calves, were second and third. The junior calf class was one of the strong line-ups out. There were seven candidates of good type and quality. St. Julien, a coming, thick, low-set, masculine calf, was given the premier position.

Miss Armour Fairfax, the Western champion this season except at Regina, went to the top in the aged-cow class. She was showing in splendid form and at any time is a remarkably good-topped cow, broad, deep and smooth. Miss Brae Real 5th was not quite so evenly fleshed along the back, nor so large a cow. Both females carried a great depth of flesh and stood in the order they have been mentioned. Miss Brae Real 3rd. was a large matron but not so smoothly fleshed as the former two. She was placed, however, above Della Fairfax, which, with few exceptions in the past, has been next to her stablemate, Miss Armour Fairfax, in less strenuous competition.

The winner of four two-year-old heifers was Lorna Fairfax, a deep, broad animal, but showing a tendency to plainness behind. Miss Belle Fairfax, in second place, was not so deep and a trifle more rough.

All of the five senior yearling heifers would have stood considerable more fitting. The quality was all right but as they stood it was not a strong class. The premier position went to Blanche Fairfax, a heifer of good quality and considerable promise. There were eight junior yearling heifers forward, with Perfection Lass 5th and Florida Fairfax in the lead. The former was a smooth, typey little heifer giving promise of considerable outcome. The second winner was a good thing, while Roseleaf 42nd had many Hereford qualifications. While there were many good heifers among these eight, the class was none too uniform. Perfection Lass 5th was ultimately the junior champion female. Rosetta Fairfax and Della were the winners of the senior and junior calf classes, respectively. The latter in her bloom of calthood was an attractive little heifer.

The awards in this breed were made by Thomas Clark, Beecher, Ill. His long experience in breeding Herefords and judging renders him a competent man to make decisions of this kind.

Exhibitors.—W. Readhead, Milton; G. E. Reynolds, Elora; L. O. Clifford, Oshawa; W. H. & J. S. Hunter, Orangeville; Jas. Page, Wallacetown.

Awards.—Aged bull, (4 in class): 1 and 2, Clifford, on Bonnie Brae 31st and Lord Fairfax; 3, Readhead, on Bonnie Ingleside 7th; 4, Reynolds, on Brae Real 3rd. Bull, two years, (1): 1, Page, on Brae Real 6th. Bull, senior yearling, (1): 1, Hunter, on Rosemark Ingleside 58th. Bull, junior yearling, (2): 1, Hunter, on High Ideal; 2, Clifford, on Brae Real 8th. Bull, senior calf, (4): 1, Clifford, on Lord Fairfax 5th; 2 and 3, Reynolds, on Reliance 3rd and Reliance 4th; 4, Readhead, on Max of Brookdale. Bull, junior calf, (7): 1, Hunter, on St. Julien; 2 and 3, Page, on Brae Real 10th and Brae Real 9th; 4 and 5, Reynolds, on Reliance 5th and Re-

liance 6th; 6, Clifford, on Lord Fairfax 16th. Aged cow, (6): 1 and 4, Clifford, on Miss Armour Fairfax and Della Fairfax; 2 and 5, Page, on Miss Brae Real 50th and Miss Brae Real 2nd; 3, Reynolds, on Miss Brae Real 3rd; 6, Readhead, on Cassandra Ingleside. Heifer, two years, (4): 1, Page, on Lorna Fairfax; 2, Clifford, on Miss Belle Fairfax; 3, Readhead, on Ruby 3rd; 4, Reynolds, on Dearie. Heifer, senior yearling, (5): 1 and 2, Page, on Blanche Fairfax and Miss Brae Real 11th; 3 and 4, Reynolds, on Miss Reliance and Lady Lee; 5, Readhead, on Milly. Heifer, junior yearling, (8): 1, 2 and 4, Clifford, on Perfection Lass 5th, Florida Fairfax and Perfection Lass 3rd; 3, Readhead, on Roseleaf; 5, Hunter, on Maid Marion 2nd. Heifer, senior calf, (5): 1, Clifford, on Rosetta Fairfax; 2 and 3, Readhead, on Roseleaf of Brookdale and Victoria of Brookdale; 4, Reynolds, on Miss Reliance 5th; 5, Page, on Miss Brae Real 15th. Heifer, junior calf, (4): 1, Clifford, on Della; 2, Page, on Miss Brae Real 16th; 3, Reynolds, on Miss Reliance 6th; 4, Readhead, on Ruby of Brookdale. Senior and grand champion bull: Clifford, on Bonnie Brae 31st. Junior champion bull, Hunter on High Ideal. Senior and grand champion female: Clifford, on Miss Armour Fairfax. Junior champion female: Clifford, on Perfection Lass 5th. Graded herd: 1, Clifford; 2, Page; 3, Readhead; 4, Reynolds. Junior herd: 1, Clifford; 2, Reynolds; 3, Page; 4, Readhead. Breeders' herd, heifers to be bred and owned by exhibitor: 1, Clifford; 2, Reynolds; 3, Page; 4, Readhead. Three animals get of sire: 1 and 2, Clifford, on get of Perfection Fairfax and Lord Fairfax; 3, Hunter, on get of Superior Lad; 4, Page, on get of Bonnie Brae 31st. Two animals, progeny of one cow: 1, Page; 2, Clifford; 3, Readhead; 4, Reynolds. Best four calves, owned and bred by exhibitor: 1, Clifford; 2, Readhead; 3, Page; 4, Reynolds. John Brown & Sons, of Galt, showed one steer in each of two classes allotted for such.

Aberdeen-Angus.—A feature of the beef cattle exhibit this year was the strength and uniformity of the Aberdeen-Angus classes. The breeders who champion these cattle usually have their entries in good fit, but this year the numbers were so increased as to make a very creditable show indeed. The number out in each class is indicated in the list of awards, so readers can judge for themselves as to the numerical strength. There was a marked degree of uniformity, particularly in the young things and decisions were often based on fit alone. The Aberdeen-Angus exhibitors deserve credit for the showing they made in Toronto in 1917. They should now enlist new breeders and carry the banner into more strongly fortified territory. There is much ground they can gain if they use the proper tactics.

Only three aged bulls were forward in the class for same, and these were placed Elm Park Pat, first; Young Leroy, second, and Bravo's Prince of Larkin Farm, third. The first and third-prize winners were of large type, while Young Leroy was of the lowest, neat order. Little fault could be found with any one of them. Elm Park Kelso and Brigadier of Larkin Farm fought it out in the two-year-old bull class. The former was in better fit and won on quality and finish. Bowman's cattle were all in splendid form after a hard season on the Western circuit. Beauty's Leroy, in this class, had to be content with third place. One senior yearling and two junior yearling bulls were presented but the senior-calf class was one of the good ones, including nine individuals. In this list of Doddies there were two outstanding calves. Middlebrook Prince 7th was a strong, typey calf but he did not possess so much bloom or finish as Elm Park Buxon. The latter was a trifle smoother and won first place as well as the junior championship. Only three junior calves were forward.

The seven aged cows in line presented a problem. Some were a trifle on the large side, but withal smooth and fit. The stablemates, Lillian of Sunny Acres and Lady Clara 2nd, stood first and second. These were two big cows that had to go first or last. Some took objection to the winner on account of considerable white on her belly. Otherwise there was nothing wrong with them unless they were not quite trim enough to suit the fastidious Angus breeder. Primrose of Larkin Farm was a smaller cow and had she been a little smoother behind she might have climbed up nearer the top and necessitated a change. Middlebrook Beauty 6th, last year's winning two-year-old, and strong candidate for the senior championship in 1916, was fourth. In fifth place stood Pride of Glen Rose, last year's senior champion at Toronto, and grand champion at Ottawa. This matron of the breed does not stand quite as nicely as she should, and she does not have a strong top line, but she is a grand cow in other respects.

The senior champion female was found in a class of eight two-year-old heifers where Middlebrook Pride 17th led the way. This candidate was in good fit and her conformation was right. It is seldom that a calf champion comes back and wins a second time at the same fair, but this honor must go to Pride of Larkin Farm 13th, last year's junior and grand champion female. She stood this year in her class of seven senior yearlings above her stablemate, Her Majesty of Larkin Farm. The winning heifer here was once more junior and grand champion, as well as recipient of the Scotchman's medal for best Aberdeen-Angus in the show. Her one weak spot, and that a minor one, is in handling qualities where she would be improved by a more pliable skin. In this respect, however, she is much better than last year. A heifer of the right type, Pride of Larkin Farm 14th, was placed first in a class of eight junior yearlings. Elm Park Rosebud 25th, a trifle more upstanding, was second, and Watt's Beauty was third. The latter animal showed a tendency to roughness behind, or a depression between the hock and pin bones.

Middlebrook Pride 20th was just as strong a candidate for third place. The senior heifer calves, ten in number, made another strong class. Middlebrook Pride 21st, a well-grown thing went into premier place and was followed by Rosalind of Larkin Farm 4th, a better handler but not so smooth. Three junior calves completed the females.

Jas. Smith, Rockland, Ontario, made the awards. Exhibitors.—John D. Larkin, Queenston; Wm. Channon & Son, Oakwood; Jas. Bowman, Guelph; John Lowe, Elora; T. B. Broadfoot, Fergus.

Awards.—Aged bull, (3 in the class): 1, Channon, on Elm Park Pat; 2, Bowman, on Young Leroy; 3, Larkin, on Bravo's Prince of Larkin Farm. Bull, two years, (3): 1 and 3, Bowman, on Elm Park Kelso and Beauty's Leroy; 2, Lowe, on Brigadier of Larkin Farm. Bull, senior yearling, (1): 1, Bowman, on Elm Park Raregood. Bull, junior yearling, (2): 1, Larkin, on Loyalist of Larkin Farm; 2, Bowman, on Elm Park Pluto. Bull, senior calf, (9): 1 and 5, Bowman, on Elm Park Buxom and Elm Park Partaker; 2, Lowe, on Middlebrook Prince 7th; 3, Channon, on Pat Bate of Sunny Acres; 4, Broadfoot, on Balmedie Fleming. Bull, junior calf, (3): 1, Lowe, on Middlebrook Jock 2nd; 2, Bowman, on Elm Park Kenyon; 3, Larkin, on Puritan of Larkin Farm 2nd. Aged cow, (7): 1 and 2, Channon, on Lillian of Sunny Acres and Lady Clara 2nd; 3 and 5, Larkin, on Primrose of Larkin Farm and Pride of Glen Rose; 4, Lowe, on Middlebrook Beauty 6th. Heifer, two years, (8): 1, Lowe, on Middlebrook Pride 17th; 2 and 3, Larkin, on Primrose of Larkin Farm 3rd and Primrose of Larkin Farm 2nd; 4, Bowman, on Elm Park Pride; 5, Channon, on Kintso Pride. Heifer, senior yearling, (7): 1 and 2, Larkin, on Pride of Larkin Farm 13th and Her Majesty of Larkin Farm; 3, Broadfoot, on Balmedie Pride 6th; 4 and 5, Channon, on Grace of Sunny Acres 3rd and Liza of Sunny Acres 3rd. Heifer, junior yearling, (8): 1, Larkin, on Pride of Larkin Farm 14th; 2, Bowman, on Elm Park Rosebud 25th; 3 and 5, Channon, on Watt's Beauty and Lillian, of Sunny Acres 2nd; 4, Lowe, on Middlebrook Pride 20th. Heifer, senior calf, (10): 1, Lowe, on Middlebrook Pride 21st; 2 and 4, Larkin, on Rosalind of Larkin Farm 4th and Pride of Larkin Farm 24th; 5, Channon, on Lucy of Sunny Acres. Heifer, junior calf, (3): 1, Bowman, on Elm Park Rosebud 29th; 2, Lowe, on Middlebrook Beauty 7th; 3, Larkin, on Pride of Larkin Farm 27th. Senior and grand champion bull: Channon, on Elm Park Pat. Junior champion bull: Bowman, on Elm Park Buxom. Senior champion female: Lowe, on Middlebrook Pride 17th. Junior and grand champion female: Larkin, on Pride of Larkin Farm 13th. Graded herd: 1, Larkin; 2, Bowman; 3, Lowe; 4, Channon. Junior herd: 1, Larkin; 2, Bowman; 3, Lowe; 4, Channon. Breeders' herd: 1, Larkin; 2, Bowman. Best three animals, get of one sire: 1, Larkin, on get of Prince Bravo; 2, Lowe, on get of Jock of Glencairn; 3 and 4, Bowman, on get of Elm Park Wizard. Best two animals, progeny of one cow: 1 and 3, Larkin; 2 and 4, Bowman. Best four calves: 1, Bowman; 2, Lowe; 3, Channon; 4, Larkin; 5, Broadfoot. The recipient of medal for best Aberdeen-Angus animal in the show was Pride of Larkin Farm 13th.

Utility Pens a Feature of the Poultry Entries.

The big, airy poultry building on the exhibition grounds once more housed a large number of the feathered tribe. Practically every breed of fowl was represented, and pet stock also found a place and received its share of admiration, especially from the young folk. The quality on the whole was on a par with other years. The cool weather evidently delayed moulting, consequently the majority of the older birds appeared to better advantage than on previous occasions at the National. The young stock, however, were not so well grown as they usually are by the first of September. While some entries were fairly well developed, there were many birds that were small, although they were typey, well-marked representatives of their breed. The competition in all breeds is usually strong at the National, and is booming stronger each year. Last year showed an increase of five or six hundred over the

previous year, while this year the entry list was further swelled by about four hundred. Supremacy in numbers was between the White Leghorns and the Barred Rocks; the one an egg breed and the other a general-purpose fowl. An idea of the work the judges have to perform may be gleaned from the number of entries in some classes. For instance, in Leghorns there were twenty-nine cockerels, thirty-five pullets, thirty-six hens and twenty-three cocks; in Barred Rocks, twenty-seven cockerels, twenty-seven pullets, and twenty-five cocks; White Wyandottes, twenty-seven hens, eighteen pullets and eighteen cocks. The egg and utility breeds were all well represented, but the fancy fowl were a little lighter than usual. There were ninety-seven utility pens, of four birds each, and space was at a premium to accommodate them. This was thirty-three more entries than last year. Barred Rocks made the largest entry in these pens, there being eleven; White Wyandottes, eight; White Leghorns, seven; Orpingtons, nine; Rhode Island Reds, seven. A good deal of interest centred around these pens, as it was necessary that each bird in the pen come up to a certain standard of uniformity. The exhibitor had to exercise care in selecting his pen in order that he might make a good showing. One or two good birds may quite easily be picked out of a flock, but when it comes to selecting four birds of the same conformation the work is accentuated. There were many excellent pens shown.

There were forty-two entries in turkeys. This was an increase over last year. The birds were of unusually high quality, and the young stuff was well grown. There were forty-seven entries in geese and sixty-six in ducks. The weather during the Exhibition was favorable for the birds, which aided in keeping them free from common ailments as roup, colds, etc.

Fruit and Vegetables.

No fault could be found this year with the fruit and vegetable exhibits at the Canadian National unless it be in the quantity of same. This year the vegetables were only allowed to stand for one week, which has become a necessary ruling on account of the vegetables in former years being unable to stand up during the full period of the Fair. The vegetables were of good quality this year but the exhibit was not large. During the second week fruit took their place. The leading feature of this exhibit was the display entries. Tables having an area of 124 square feet are decorated with different varieties of fruit. The taste exhibited by the exhibitor and the quality of the fruit are judged. These displays, three in number, were exceedingly attractive. The first prize was awarded to A. W. Austin, Pt. Dalhousie, while the second and third prizes went to W. J. Furlinger and Robert Cameron, respectively, both of St. Catharines. Apples were displayed on plates, in boxes, and arranged in cones. Good size and color was obtained considering the time of year. It is doubtful, however, whether it is wise to call for entries of Spys, Greenings, Russets, and such, which are never mature by the first week of September. The Spys on exhibition particularly at that time of year convey a wrong impression. Plums, pears, peaches and grapes were all in evidence and of splendid quality.

Judging Competition.

An innovation at the Canadian National this year was the competition in judging for young men. From every point of view it was a success and undoubtedly will become an annual event where young men from all parts of the country will congregate to test their judgment and ability to give reasons. It is a splendid training for any young man and all who can should enter such competitions. There were 169 young men taking part, which is considered exceptionally good for the first year and should be gratifying to those having the work in charge. Contestants were permitted to enter in one class of live stock and either roots and grain or fruit and vegetables. They were given twenty-five minutes to make their placing and prepare their reasons. On some classes oral reasons were heard, and many of the contestants gave exceptionally good reasons. They remembered the strong and weak points of the animals they had been working on and were able to tell the

examiners wherein the first-prize animal excelled the second, etc. Those judging dairy cattle worked on a class of four Ayrshires and a class of four Holsteins. In beef, Angus and Shorthorns were used. Leicesters and Shropshires were chosen for the sheepmen to judge. Yorkshires and Berkshires were the breeds of hogs used, and horsemen were called upon to place a splendid line-up of Percherons and one of Clydesdales. Typey individuals were chosen and each class was quite uniform in conformation. They were not easy classes to place. The contestants needed to be familiar with the characteristics of the breed and the points given greatest consideration, in order that they might feel reasonably sure of themselves.

Those entering in grain had samples of wheat to place and give reasons for same. The boys were also called upon to give oral reasons for criticisms of the exhibits. Those judging fruit had twelve varieties of apples to name and three plates of apples to place. In vegetables, cabbage, carrots and potatoes were placed before the contestants for them to pass judgment upon. The Canadian National Fair Board banqueted those taking part in the competition and gave each a pass to the grandstand for the evening performance.

The first three placings in each class, together with the score, were as follows.—Beef cattle, total score 200: 1, T. C. Amos, Halton County, 181; 2, F. Johnston, Ontario, 167; 3, L. Lindsay, Haldimand, 162. Heavy horses, total 200: 1, S. S. Staples, Durham, 167; 2, F. Becker, Waterloo, 163; 3, G. E. Whitmore, York, 160. Dairy, total 200: 1, T. R. Maxwell, Peel, 155; 2, H. J. Seymour, Durham, 145; 3, M. McDonough, Wentworth, 141. Swine, 200: 1, Wm. Buchanan, Essex, 166; 2, R. Templar, Brant, 162; 3, Chas. N. Boynton, York, 160. Sheep, 200: 1, Wm. Chrysler, Welland, 175; 2, H. Jones, Oxford, 170; 3, Wm. Thompson, Peterboro, 165. Poultry, 300: 1, G. R. Wilson, Wellington, 242; 2, E. Beamer, Welland, 227; 3, R. H. Crosby, York, 226. Grain and roots, 300: 1, R. H. Crosby, York, 271; 2, G. E. DeLong, Wellington, 257; 3, W. W. Lord, Durham, 251. Fruit and vegetables, 800: 1, E. Beamer, Welland, 648; 2, H. Dobell, 580; 3, I. McMahon, Simcoe, 579.

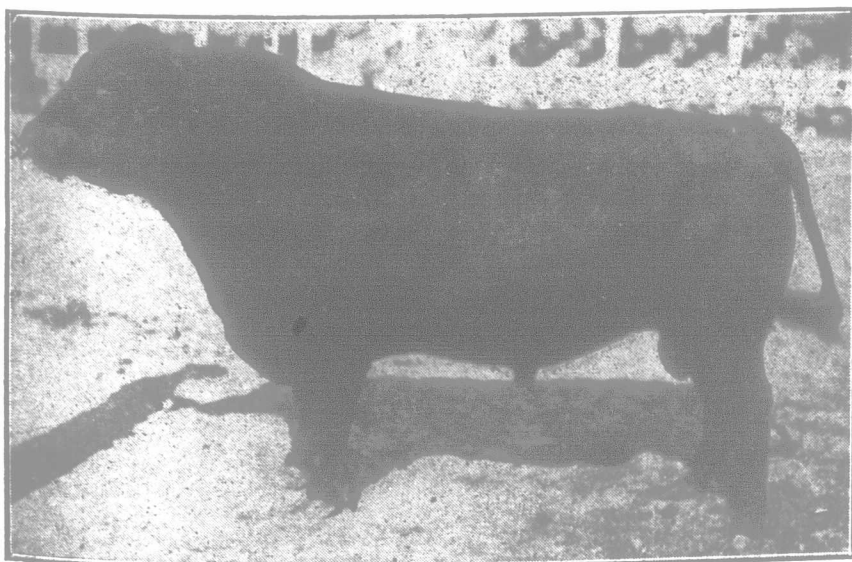
Dominion Crop Report.

The Census and Statistics Office issued Sept. 4, the following special report on the condition of field crops throughout Canada, as compiled from telegrams despatched at the end of August.

Atlantic Provinces.—In Prince Edward Island the hay crop was heavier than anticipated. Pests have reduced wheat 20 per cent. below average. Other grains are full crop. Potatoes, except for a few blighted areas should yield above average. Full crop of roots, vegetables and corn. In Nova Scotia all crops made excellent growth. Labor scarce, haying slow, but hay being stored in good condition. Flax ripening nicely, hemp fair growth, considerable rust. In New Brunswick: August weather too wet and warm for best crop yields. Wheat and oats below average; potatoes going down with late blight reducing crop prospects to about 60 per cent. of average yields. Roots promise well. Very heavy hay crop. Pastures good.

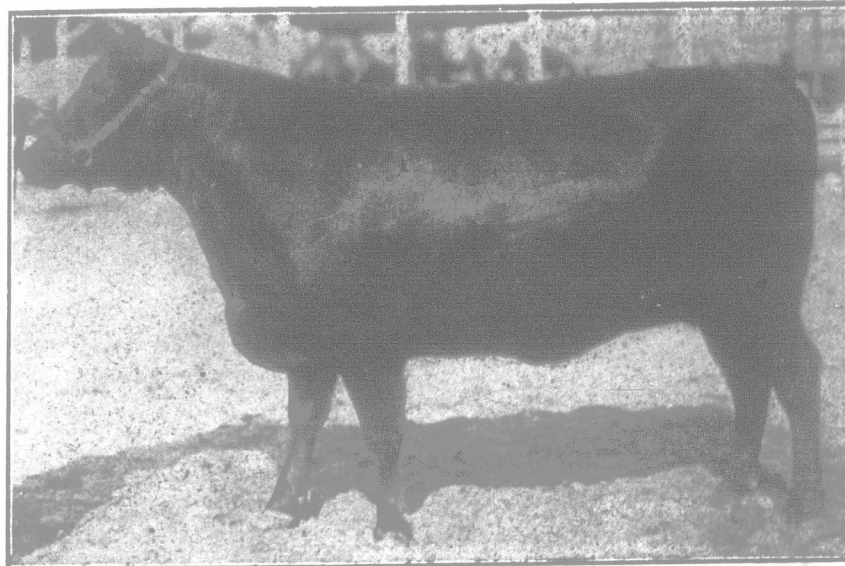
Quebec, Rimouski.—Abundant yield of hay; grain and potatoes have fine appearance; plums good, apples small and a month late. Lennoxville.—Considerable hay not cut and much grain ripe, but in bad shape through excessive rainfall. Cap Rouge.—Hay crop heaviest in years but not yet all in, and quality not good owing to frequent rains. All grain much below normal from same cause. Silage corn and potatoes poor; apples only half a crop.

Ontario, Ottawa.—Harvesting is almost completed, and grain crops are giving a very fair yield; potatoes, roots and corn are doing well; pastures are short. Peterborough.—Wheat, barley and oats yielding high; grain extra good sample; mangolds, turnips and potatoes doing well; corn large acreage and heavy crop; pastures good; apple crop light. Oshawa.—Yield of wheat and oats above average. Lodged oats decrease crop and double labor, otherwise a record crop. Barley average crop; root crops good, corn fair. Hyde Park.—Wheat yielding 25 bushels per acre; oats in stook, grain light;



Elm Park Pat.

First-prize aged Aberdeen-Angus bull and grand champion at the Canadian National. Exhibited by Wm. Channon & Son, Oakwood, Ont.



Middlebrook Pride 17.

Winning two-year-old heifer and senior champion at the Canadian National; exhibited by John Lowe, Elora, Ont.

barley grain small, corn late and may not mature; potatoes and roots good. Large acreage of fall wheat will be sown if possible. Petrolia.—Ideal harvest weather; all grain crops harvested except 10 per cent. of oats. Best season for years. Increased acreage being sown to fall wheat.

Manitoba, Brandon.—Dry weather has combined throughout August. Cutting completed, threshing begun. Yield better than was feared, and quality excellent. Franklin.—Conditions much improved during month. Wheat will yield very fair, good sample. Oats and barley a little light. No damage by frost. Harrowby.—Wheat harvest well along, 15 bushels per acre. Oats and barley 40 per cent. cut for feed, will thresh 25 bushels; potatoes 30 per cent. of average.

Saskatchewan, Rosthern.—Most wheat will grade 1 and 2. Yield 20 to 30 bushels. Scott.—Wheat will probably average 16 bushels, barley 30, oats 30 to 45. Sufficient laborers for immediate requirements at \$4 per day. More help wanted for threshing.

Alberta.—The Alberta Department of Agriculture reports that crops have greatly improved on account of general rains, frequent showers and favorable weather conditions. It is now estimated that the yields will be a good average, if not a little better, although the previous dry weather permanently reduced average over a considerable area. With the exception of a number of destructive hailstorms there has been no damage to crops by frost or otherwise. Harvest operations are now general; in the lighter districts 50 to 75 per cent. of grain has been cut. Threshing will be general by 15th. No frost yet; all cereals will grade higher than usual; roots and live stock in excellent condition. Lethbridge.—Harvest well advanced in southern Alberta. Yields generally are somewhat lighter than anticipated. Oats and barley rather poor. Serious hail storm at Hyde Park. No frost recorded. Lacombe.—Harvesting in Central Alberta further advanced than for any previous season for ten years. Yield of grain below average, but superior in quality.

British Columbia, Agassiz.—August dry and hot. Grain medium crop, no damage from rain in stook; root crops and pastures badly need moisture. Summerland.—Apples 10 per cent. more than last year, and of best quality. Grain not well filled. Serious water shortage. Invermere.—Good second cuts of alfalfa and clover under irrigation; roots and corn have made good. Sidney.—All grain harvested in excellent weather. Yield not heavy, forage crops, roots and potatoes will be light; apples and other orchard fruit below average, pastures very short and rain much needed.

Muskoka and Parry Sound.

EDITOR "THE FARMER'S ADVOCATE":

The beautiful areas of Muskoka and Parry Sound, called the Highlands of Ontario, are naturally rather in the public mind as a paradise for tourists than by reason of agriculture and industries, but, if more prosaic, the latter are the foundation on which rests the all-year-round superstructure. Recalling the misty mires of Scotland and the loveliness of Erin's Killarney, these endless lakes present a perpetual summer charm famed the world over. A rare combination are these sparkling waters and stone-ribbed hills, steeped in tonic air and still clad with timber and fuel, if conserved right, enough for a century, grazing runs for ten thousand hoofs of sheep and cattle, and valley farms into which the fertility of ages has been washed! At the recent somewhat tardy harvest season the crops of wheat, oats, barley, peas, etc., presented a remarkably thrifty appearance, and, including hay, surpassed those of 1916, the yield throughout the districts being probably twenty per cent. in advance. The stimulating effect of field-crop competitions is to be noted, and they appeal to the interest of young men and boys. Corn, potatoes and various vegetables were particularly fine. There would seem to be excellent opportunities ahead for the production of seed potatoes and peas. The fields of the latter were a real treat to see. Men like Wm. Naismith and H. L. Goltz have been making a specialty of potato growing with marked success at the big city exhibitions. Decided advances are being achieved in the production of garden products required in large quantities for tourist consumption, which also creates a brisk summer demand for butter, milk and cream, profitable too where within easy access of the resorts. Wild raspberries were a luxuriant crop this season, continuing to a late date; and earlier, wild strawberries were abundant and very fine, many being canned and converted into jam of peculiarly tasty flavor. Many stretches of land are literally covered with sturdy plants. Near the towns a few dairymen specialize in supplying milk. The tinkle-tinkle of the cow bell makes a familiar and necessary music about the bush-skirted pastures. Dairy butter is produced on most farms, more than enough for home consumption, so that quantities are shipped out, and during July last a small creamery at Powassan made 11,000 lbs. of butter. The conformation of the land is not adapted to factory dairying. For a variety of reasons, some of them general, there has been a decline in the number of cattle and sheep compared with former times, but one will yet see more flocks of sheep than, for example, in Western Ontario, and some who parted with their flocks in recent years are regretting it. There is a decided disposition now to increase foundation stocks because of more commensurate returns. Unless near a good centre the isolated, small producer has been handicapped in selling, and in the judgment of the District Representative of the Department of Agriculture, F. C. Patterson, located at Huntsville, the most encouraging outlook is for individuals or companies operating on a fairly large scale. In fact, Mr. Patter-

son is giving evidence of his faith with that of C. M. Laidlaw, lately of the O. A. C. Physics Department, Guelph, who have under lease in Boulter Township an extensive tract of suitable land for cattle and sheep ranching, which is being carefully developed as a private enterprise but will be valuable incidentally to the public as a demonstration. In addition to the grazing runs, there should be sufficient intervening arable tracts for the production of winter forage and other crops for live stock. Covering both Parry Sound and Muskoka, the District Representative has a large and difficult field to administer and he is applying to it the essentials of efficiency.

Several successful short courses have been held under the auspices of the Department of Agriculture, and school fairs are being conducted with excellent results in directing the minds and habits of the youth in wholesome channels. Some six hundred pupils are understood to be participating this season. The surrounding and interior of one rural public school visited in a quite secluded neighborhood gave most commendable evidence of local interest and pride, the floors and desks being spotlessly clean, walls beautified with pictures and mottoes, a facsimile of the historic Belgium "Scrap of Paper" treaty framed, being included. The room was also equipped with an outfit of nicely burnished lamps for use at community events in the evening.

By reason of the war, tourist visitors, according to an officer of a local navigation company, had declined perhaps twenty per cent. in the summer past, notably of men, but money was very freely spent withal and people were in good heart. Military service has naturally reduced the number of farm workers, but not so seriously as in other sections of Ontario. A fine battalion was raised in each of the districts and many men previously enlisted in other branches of military service, but it is said that more help is available in Muskoka and Parry Sound than in other parts of the Province. Work in the bush and mills is admittedly retarded and wages are high, with the effect of restricting the stock of lumber and finished products for which the country has a good name. Huntsville boasts one of the greatest tanneries on the entire continent, and on Bigwin Island, in the Lake of Bays, a "million-dollar" tourist Inn venture is in process of construction, which in design and in all its appointments is unique, probably surpassing anything of the kind in America. The ornate, circular dining-room is to accommodate 600 guests if need be, and directly overlooks the lake after the manner of Italian resorts. People who rush through on a north bound express deem this a land of wilderness and rock, and since the influx of early days it has had its ups and downs, but the "Ups" are in the ascendant now. In addition to the important coniferous trees which abound in various stages of growth in almost all directions, there are scattered among them good clumps of hardwood, such as maple, so that here and there syrup making is carried on in spring. Conditions vary greatly in the strictly rural districts, but if there are stony, abandoned steadings, the tillage of which was hopeless at the outset, one will also find roads, churches, schools, telephone systems, rural mail routes and farm homes comparing favorably with those of older Ontario. Muskoka, Ont. ON THE WING.

Date of Annual Dairy Convention Set.

At a meeting of the board of directors of the Dairymen's Association of Western Ontario, held on Sept. 4, arrangements were made to hold the fifty-first annual convention and winter dairy Exhibition in Stratford, January 16 and 17, 1918. The directors consider that the butter grading begun this year by the Department of Agriculture has been satisfactory and that it is in the best interest of the creamery industry to continue the work. The following resolution was passed:

"That in view of the fact that the present price of cheese as set by the Cheese Commission is out of proportion to the prices now being received for other milk products, such as condensed and powdered milk and milk for direct consumption, the Directors of this Association are in favor of any action that may be taken by the Federal Department of Agriculture in connection with the placing of milk and milk products on a more equal price basis."

Select Seed Early.

The safest time to lay plans for next year's seed supply is in the fall. Last spring considerable complaint was heard regarding scarcity of suitable seed with which to sow and plant the larger acreage which farmers desired to bring under crop. Next year there should be little cause for scarcity provided care is taken to save the best grain for seed this fall. The man who plans to use his own seed can well afford to spend a little time on selection and special storage at the time of harvesting and later this season. Seed selection is one of the best means of increasing yields of all farm crops and in 1918 there will be a need for the largest possible yields. It is a comparatively easy matter at time of threshing to place the best grain from the best fields in bins where it can be reserved for extra cleaning in the winter, and the best possible preparation for seeding the fields in the spring of 1918. As a general thing we believe the grain crop in Ontario to be one of the best the Province has ever produced and the grain plump and of first-class quality. Where such is the case and the variety is recognized to be one of the best, it is good practice for each farmer to save his own seed and to lay plans for extra cleaning which means that a larger supply than that actually necessary should be put aside to allow for that which cleans out in the various fanning operations.

With corn and potatoes field selection will be found profitable. It is going to be a poor year for seed corn but it will pay those who have some sufficiently mature, to hill-select enough good ears for next year's planting. Particularly is this true of potatoes. In digging save seed from those hills showing the largest number of uniform tubers. Let us sow the best seed next year that ever went into the ground in Canada and get a good start toward the biggest possible crop. In saving bean seed be sure that the crop is free from disease.

Wool Sales in the West.

The Manitoba Department of Agriculture disposed of the wool it had assembled under the co-operative, at very satisfactory prices. The Department had approximately 180,000 lbs. of wool. The highest priced wool was fine medium combing, which brought 65 cents per lb.; medium combing brought next highest, 63 cents. The price was regarded as satisfactory. The following is a statement of the prices paid for the various grades, and is practically double the price received last year—

Fine combing.....	60 cents
Fine clothing.....	60 cents
Fine medium combing.....	65 cents
Medium combing.....	63 cents
Medium clothing.....	56 cents
Coarse.....	57 cents
Rejects.....	45 cents
Gray and black.....	48 cents
Tags.....	20 cents
Mohair.....	60 cents

Most of the farmers who made private sales of their clip this year received about 40 cents, with a few running as high as 50 cents. The Department knows of no Manitoba farmer selling on his own account who received as high a figure as was obtained for the wool in the co-operative sale.

The Pincher Creek Wool Growers' Association disposed of 61,000 pounds of wool at their annual sale recently; realizing 59 3/4 cents as an average price on all grades.



First-prize Shorthorn Graded Herd at Toronto.

First-prize Shorthorn herd shown at the Canadian National, 1917; headed by Gainford Marquis and exhibited by J. A. Watt, Elora, Ont.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending September 6.

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	Week Ending	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	
Sept. 6	1916	Aug. 30	Sept. 6	1916	Aug. 30	Sept. 6	1916	Aug. 30	Sept. 6	1916	Aug. 30	
Toronto (Union Stock Yards)	7,521	6,081	7,381	10.75	8.50	11.00	700	777	764	15.50	12.00	15.00
Montreal (Pt. St. Charles)	1,396	1,147	1,409	10.25	8.10	9.50	513	499	546	15.50	10.00	13.00
Montreal (East End)	1,424	1,194	2,146	10.25	8.10	9.50	291	504	541	15.50	10.00	13.00
Winnipeg	9,320	4,940	9,491	10.50	6.90	10.50	196	181	267	10.00	9.00	9.50
Calgary	1,612	1,446			6.50	8.75						8.75

HOGS						SHEEP						
Receipts		Top Price Selects				Receipts		Top Price Lambs				
Week Ending	Same Week	Week Ending	Week Ending	Week Ending	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	
Sept. 6	1916	Aug. 30	Sept. 6	1916	Aug. 30	Sept. 6	1916	Aug. 30	Sept. 6	1916	Aug. 30	
Toronto (Union Stock Yards)	3,395	6,403	6,835	18.25	11.85	19.50	5,102	3,815	4,513	15.50	10.50	15.75
Montreal (Pt. St. Charles)	2,308	1,892	3,252	17.75	11.90	17.50	4,476	2,853	3,077	15.00	10.75	14.50
Montreal (East End)	685	1,366	2,002	17.75	11.90	17.50	1,468	997	1,616	15.00	10.75	14.50
Winnipeg	2,356	3,466	3,438	17.00	11.75	18.00	1,153	627	1,235	13.00	10.00	13.00
Calgary	1,304	2,222			10.40	16.00	1,726	108		9.00	12.50	

Market Comments.

Toronto (Union Stock Yards.)

Heavy receipts of cattle, totalling five thousand head on Monday and increased to seventy-five hundred head by Thursday, resulted in a less active trade than existed during the several preceding weeks. In addition heavy shipments have been made direct to the abattoirs from western Canada during the past two weeks. Consequently, on Monday trading was inactive and prices were cut from 10 to 25 cents on choice cattle and from 25 to 40 cents on medium and common cattle. Lighter receipts of cattle resulted in more activity toward the end of the week in good quality cattle, and quotations closed about 10 cents higher than those prevailing on Monday. The quality of the cattle offered at present is only fair, many common loads being on sale. One load of heavy steers sold on Monday at \$12.40 per hundred, another load at \$12.25, while four loads sold at \$11.85, and four other loads at \$11.00; these were about the top prices realized. No heavy steers were exported, but a few loads of butcher cattle went to a Buffalo abattoir during the week. Choice heavy butcher cattle were selling at from \$10.25 to \$10.75, with a few extra good ones reaching \$11; while those of medium quality were realizing \$9.25 to \$9.75. Good light butcher steers and heifers sold from \$9.25 to \$9.75, with extra good ones reaching \$10, and common eastern cattle from \$7 to \$8 per hundred. Cows and bulls were a trifle lower. One load of cows sold at \$8.35, and while an odd choice cow sold up to \$8.75, the bulk of the best sold from \$7.50 to \$8, and common cows at \$6 to \$6.75. Few bulls sold above \$8, the bulk of the good animals selling from \$7 to \$7.50, with common bologna bulls realizing \$6 to \$6.50. Stockers and feeders were in good demand, and heavy shipments were made to Ontario points, and a few loads to New York State. Several car loads of stockers and feeders from Winnipeg were on sale at \$8.25 to \$8.75, with good feeders reaching as high as \$9.25. The bulk of the feeders sold from \$8.50 to \$9, while the best stockers sold from \$7.75 to \$8.25. The activity in this department undoubtedly stimulated trading in other departments and prevented further recessions in prices. Calves sold from \$14.50 to \$15 for good quality, with medium selling from \$12 to \$13.50 and common at \$9 to \$12. Considerable numbers were shipped to Buffalo during the week.

With forty-five hundred lambs and sheep on the market, prices were about steady at last week's quotations. Choice lambs sold from \$15.25 to \$15.50 per hundred; good lambs at \$14.75 to \$15.25, and common lambs at \$12 to \$14. Sheep were selling at \$8 to \$11 good light sheep bringing the latter price. Several hundred lambs were exported to New York during the week.

Light supplies of hogs were forthcoming and prices were firm, \$17.75 being bid for select hogs on the opening market, but by Thursday prices had advanced to \$18.25. The market closed unchanged at this level.

Of the disposition from the Union Stock Yards for the week ending August 30th, Canadian packing houses purchased 363 calves, 5,129 butcher cattle, 6,564

TORONTO (Union Stock Yards)					MONTREAL (Pt. St. Charles)				
CLASSIFICATION	No.	Avg. Price	Price Range Bulk Sales	Top Price	No.	Avg. Price	Price Range Bulk Sales	Top Price	
STEERS									
heavy finished	218	\$11.98	\$11.50-\$12.25	\$12.40	8	\$10.75	\$10.75-	\$10.75	
STEERS good	408	10.30	9.75-10.50	10.75	9	9.90	9.75-10.00	10.05	
1,000-1,200 common	28	9.31	8.75-9.75	9.75	48	9.15	9.00-9.25	9.52	
STEERS good	898	9.34	9.00-10.00	10.00	77	8.75	8.50-9.00	9.25	
700-1,000 common	642	7.95	7.50-8.50	9.00	175	8.15	7.75-8.25	8.50	
HEIFERS good	404	9.75	9.50-10.25	10.50					
fair	293	8.50	8.00-9.00	9.00	21	8.78	8.75-9.00	9.25	
common	250	7.50	7.00-8.00	8.00	54	7.98	7.75-8.25	8.25	
COWS good	720	7.50	7.25-8.00	8.50	8	8.35	8.25-8.50	8.75	
common	1,248	6.25	6.00-6.75	7.00	132	6.76	6.00-7.50	8.00	
BULLS good	72	7.46	7.00-7.75	8.25	32	7.93	7.50-8.50	8.50	
common	399	6.15	5.75-6.50	7.50	488	6.86	6.50-7.75	8.00	
CANNERS & CUTTERS	164	5.50	5.00-5.75	5.75	308	5.62	5.35-5.75	6.25	
OXEN	2				2				
CALVES veal	681	14.05	13.50-15.00	15.50	177	12.95	12.00-14.50	15.50	
grass	19	8.00	7.00-9.00	9.00	336	7.11	6.25-7.50	8.00	
STOCKERS good	647	7.87	7.50-8.25	8.25					
450-800 fair	602	7.17	6.75-7.50	7.75					
FEEDERS good	451	8.95	8.50-9.25	9.25					
800-1,000 fair	175	8.35	8.00-8.50	8.50					
HOGS (Fed and watered)									
selects	3,183	17.79	17.25-18.25	18.25	1,867	17.30	17.00-17.75	17.75	
heavies	26	17.99	17.25-18.25	18.25	63	16.37	15.75-16.50	16.50	
lights	78	16.92	16.25-17.25	17.25	279	16.42	16.00-16.50	16.50	
sows	106	15.36	14.25-16.25	16.25	93	13.49	13.00-14.00	14.00	
stags	2	14.00	12.25-14.25	14.25	6	12.25	12.00-12.75	12.75	
LAMBS good	4,397	15.12	14.75-15.50	15.50	1,573	14.30	13.90-14.75	15.00	
common	349	12.73	11.50-14.00	14.00	2,647	13.47	12.75-13.75	14.00	
SHEEP heavy	14	8.75	8.00-9.50	9.50	28	9.11	9.00-9.35	9.50	
light	250	10.00	9.50-10.50	11.00	10	9.75	9.50-10.00	10.00	
common	92	7.00	6.50-7.50	8.00	218	8.53	8.25-8.75	9.00	

hogs, and 3,503 sheep and lambs. Local butchers purchased 181 calves, 625 heavy steers, 356 hogs, 1,041 sheep, and 2,077 lambs. Shipments back to country points were made up of 57 calves, 11 milch cows, 116 butcher cattle, 807 stockers, 375 feeders, 42 lambs. Shipments to United States' points totalled 208 calves, 66 heavy steers, 170 butcher cattle, 97 stockers, and 28 feeders.

The total receipts at the Yards from January 1st to August 30th, inclusive, were: 141,980 cattle, 34,795 calves, 36,892 sheep and 298,375 hogs; compared to 166,098 cattle, 32,918 calves, 53,905 sheep and 299,423 hogs, received during the corresponding period of 1916.

Montreal.

With limited supplies of cattle on hand the market held steady under a good demand throughout the week. The bulk of the better class of cattle showed a marked improvement both in weight and finish compared with the previous week and in a few instances there was an advance of 25 cents per hundred on heavy-finished steers and steers of from one thousand to twelve hundred pounds. There was an active market for medium to common cattle, owing to a strong demand by the packing houses for canner and cutter bulls and cows, to fill contract orders. There was

also a demand from Ontario points for thin stock for stocker purposes. Choice, heavy-finished cattle sold from \$10.25 to \$10.75 per hundred, with a number of loads of good killers selling between \$9.50 and \$10. On the Pt. St. Charles market sales of the latter class were all made at the highest figure. Steers of one thousand to twelve hundred pounds weight brought from \$9.75 to \$10.25 and medium to common from \$8 to \$9.50. Bulls ranged in price from \$6.50 to \$8.50 with the bulk selling between \$6.75 and \$7.75. The quality was better than for some time. Calves were a strong feature all week under a good export and local demand. Milked calves were scarce and those offered for sale brought from \$13 to \$15 per hundred with grass calves ranging from \$6 to \$8. A number of calves were shipped to Massachusetts.

The market for lambs opened strong and advanced 25 to 50 cents per hundred on Monday under active buying for shipments to Boston, Massachusetts. On Wednesday five car loads were shipped to this point at prices ranging from \$13.50 to \$13.75 to \$13.90 per hundred. The range in price of the good lambs was from \$14 to \$14.75 with an odd lot selling as high as \$15. Common lambs sold from \$12.25 to \$13.25. Sheep were slightly weaker in price during the fore-

part of the week owing to lack of quality, but the closing prices of last week were fairly well held and the market closed in a firm condition.

The market for hogs was quiet throughout the week owing to light receipts following last week's decline. There was a considerably improved tone to the market and in a few instances prices were advanced from 15 to 25 cents on the closing prices of last week. On the whole, however, prices were about level with those prevailing at the close of the previous week. The bulk of the select sold from \$17 to \$17.25, heavies from \$15.75 to \$16.75, lights from \$15.75 to \$16.75, sows from \$13.50 to \$14, and stags from \$12 to \$13. The market closed unsettled.

PT. ST. CHARLES.—Of the disposition from the Yards for the week ending August 30th, Canadian packers and local butchers purchased 342 calves, 163 canners and cutters, 379 bulls, 4 heavy steers, 844 butcher cattle, 3,360 hogs, and 1,586 lambs. One calf and 21 butcher cattle were shipped out to the country as stockers. Shipments to United States were made up of 204 calves, 19 butcher cattle, and 1,491 lambs.

The total receipts from January 1st to August 30th, inclusive, were: 26,250 cattle, 44,388 calves, 18,029 sheep, and 48,348 hogs; compared to 27,959 cattle,

THE ROYAL BANK OF CANADA

Capital Authorized	- - - \$	25,000,000
Capital Paid Up	- - -	12,900,000
Reserve Funds	- - -	14,300,000
Total Assets	- - -	270,000,000

HEAD OFFICE: MONTREAL

Branches Throughout Every Province of the Dominion of Canada

Accounts of Farmers Invited Sale Notes Collected

Savings Department at all Branches.

34,666 calves, 24,495 sheep, and 58,608 hogs, received during the corresponding period of 1916.

EAST END.—Of the disposition from the East End Yards for the week ending August 30th, Canadian packers and local butchers purchased 635 calves, 1,862 butcher cattle, 1,220 hogs and 1,092 lambs. Shipments to country points totalled 3 calves, 267 butcher cattle, and 98 hogs. Shipments to United States' points were 157 calves, 17 bulls, and 524 lambs.

The total receipts from January 1st to August 30th, inclusive, were: 27,465 cattle, 34,189 calves, 11,998 sheep and 29,150 hogs; compared to 25,143 cattle, 33,675 calves, 19,185 sheep and 36,809 hogs, received during the corresponding period of 1915.

Winnipeg.

While the receipts of cattle were slightly less than those of the previous week, over ninety-five hundred head were offered for sale during the week. There was a tendency towards lower prices in sympathy with the prices ruling on the southern markets. On Monday twenty-six hundred head were offered but owing to the holiday a number of these were unsold at the end of the day and were carried over to Tuesday's market. On Wednesday, trading was slow and draggy, and the market closed on Thursday from 25 to 50 cents below the opening prices of the week. A lower market is expected for common classes of cattle, with the better grades steady at the lower figures.

Sheep and lambs remained steady, choice lambs selling at \$13 per hundred, with mixed lots from \$12 to \$12.50, according to quality.

The market for hogs opened at \$16.50 for selects, fed and watered, and under a good demand an advance of 25 cents per hundred was made on Tuesday, with one lot selling at \$16.85, a 35 cent advance on the opening price of the week. On Wednesday select hogs were selling at \$17 per hundred, and closed on Thursday at that figure, with a weak undertone to the market. Heavy hogs brought from \$14 to \$15, lights, \$15 to \$16, sows, \$13 to \$14, stags, \$11 to \$12.

Buffalo.

Cattle.—Receipts were liberal last week, but notwithstanding a generally satisfactory trade was had, prices ruling strong in some cases as much as a quarter above the preceding week on shipping steers, while the choice kinds of butchering steers and heifers sold mostly a quarter higher, balance of the offerings, which ran to the medium and commmer grades, ruling about steady. Stocker and feeder demand showed improvement, bulls were strong sale and with a limited number of dairy cows offered, these sold higher. In the Monday run of 200 loads fully sixty cars were Canadians. Best shipping steers in loads were Canadians and sold from \$12.75 to \$13, with a few odd head of natives up to \$13.50. Canadian heavy cows sold up to \$9.75 to \$10, but were very fancy. About the best in the handy steer line ranged up to \$11.25 to \$11.50, no yearlings to speak of being offered. Offerings for the week were 5,500 head, as against 7,025 for the preceding week and 3,775 head for the corresponding week a year ago. Quotations: Shipping Steers.—Choice to prime natives, \$13.50 to \$14.00; fair to good, \$12.75 to \$13.25; plain, \$11.75 to \$12.50;

very coarse and common, \$10.00 to \$11.00; best grass Canadians, \$12.50 to \$13.00; fair to good, \$11.25 to \$12.25; common, and plain, \$10.00 to \$11.00.

Butchering Steers.—Choice heavy, \$11.50 to \$12.00; fair to good, \$9.50 to \$11.00; best handy, \$11.00 to \$12.00; fair to good, \$10.00 to \$10.50; light and common, \$8.50 to \$9.00; yearlings, choice to prime, \$13.00 to \$13.50; fair to good, \$12.25 to \$12.75.

Cows and Heifers.—Best heavy heifers, \$10.00 to \$11.00; best butchering heifers, \$8.75 to \$9.50; fair butchering heifers, \$7.25 to \$8.00; light and common, \$6.50 to \$7.00; very fancy fat cows, \$8.50 to \$9.50; best heavy fat cows, \$8.00 to \$8.50; Good butchering cows, \$7.00 to \$7.50; medium to fair, \$6.00 to \$6.50; cutters, \$6.25 to \$6.50; canners, \$5.00 to \$5.75.

Bulls.—Best heavy, \$9.00 to \$9.25; good butchering, \$7.50 to \$8.25.

Stockers and Feeders.—Best feeders, \$7.50 to \$8.00 common to fair \$6.50 to \$7.25; best stockers, \$7.00 to \$7.50; common to good, \$6.00 to \$6.75.

Milchers and Springers.—Good to best, in small lots, \$90.00 to \$130.00; in car loads, \$85.00 to \$100.00.

Hogs.—Prices, notwithstanding that receipts continue to run light, showed a downward tendency last week. Monday, which was the high day, top was \$19.40, however, the quality of the bulk of the crop was pretty poor and the general range was from \$19 to \$19.25. Tuesday prices dropped from a quarter to thirty-five cents, and while Wednesday's market was little changed from Tuesday, a further decline was noted on Thursday and Friday. The fifth day of the week showed an \$18.90 top but the general range was from \$18.60 to \$18.75. A few bunches of Canadians were here the past week and they sold from \$18.50 to \$18.75.

Pigs were in good demand and they sold steady all week, bulk going at \$17.75. Roughs the fore part of the week reached up to \$18, and Friday they went from \$17.50 down, while stags ranged from \$14 to \$15.50. Last week receipts were 8,600 head, as against 9,502 head for the week before and 13,800 head for the same week a year ago.

Sheep and Lambs.—Only 5,100 head were marketed last week, as compared with 4,788 head for the week previous and 7,350 head for the same week a year ago. Prices, as result of continued light receipts, were on the jump. Last week started with a \$16.65 top for lambs, and before the week was out or on Friday toppy lots sold up to \$17. Cull grades sold all the way from \$12 to \$15, according to flesh and quality. A load of yearling wethers scored \$14.40, wether sheep were quoted up to \$11.50 and ewe offerings ranged downward from \$11.

Calves.—While the trade the fore part of the week was not any too good, record prices were paid before the week was out. Tuesday was the low day last week, top veals being slow sale at \$16 and \$16.25, and Friday, which was the high day, choice lots reached \$17.25 and \$17.50. Desirable cull grades sold up \$15.50, weighty rough calves took the range of from \$10 to \$12 and grassers went from \$9 down. Around 275 head of Canadian calves were on Friday's market and they sold from \$8.50 for grassers up to \$16.50 for the top veals. Receipts for the week were 1,850 head, as against 2,284 head for the week before and 1,675 head for the same week a year ago.

Toronto Produce.

Receipts of live stock at the Union Stock Yards, West Toronto, on Monday, September 10, consisted of 200 cars, 3,809 cattle, 255 calves, 1,270 hogs, 2,145 sheep and lambs. Active market. Choice butchers steady to 25 cents higher. Balance of cattle steady. Sheep, lambs and calves steady. Hogs \$18.25, fed and watered.

Breadstuffs.

Wheat.—Ontario, No. 2, new crop, \$2.15 to \$2.20; nominal, (according to freights outside). Manitoba wheat, (in store, Fort William—No. 1 northern, \$2.24; No. 2 northern, \$2.21; No. 3 northern, \$2.15; No. 4 wheat, \$2.05.

Oats.—Ontario, No. 2 white, 60c., nominal. Manitoba oats, No. 2 C. W., 64½c., nominal, (track, bay ports).

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

Peas.—According to freights outside; No. 2, nominal.

Corn.—American (track, Toronto), No. 3, nominal.

Rye.—No. 2, nominal.

Flour.—Manitoba first patents, in jute bags, \$11.90; second patents, in jute bags, \$11.40; strong bakers', in jute bags, \$11.00; Ontario, winter, according to sample, in bags, \$10.20, track, Toronto.

Hay and Millfeed.

Hay.—Track, Toronto, No. 1, new, per ton, \$11 to \$11.50; mixed, per ton, \$8 to \$9.50.

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

Bran.—Per ton, \$35.

Shorts.—Per ton, \$42; middlings, per ton, \$45 to \$46.

Good feed flour, per bag, \$3.25.

Hides and Wool.

Prices delivered, Toronto: City hides.—City butcher hides, green, flat, 22c.; calf skins, green, flat, 27c.; veal kip, 22c.; horse hides, city take off, \$6 to \$7; city lamb skins, shearings and pelts, 50c. to 90c.; sheep, \$2.50 to \$4.

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, \$25.

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

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

Country Produce.

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

Poultry.—Fowl of all classes kept practically unchanged, being quoted as follows: (live weight) spring chickens, 20c. per lb.; spring ducks, 17c. per lb.; roosters, 14c. per lb.; fowl 4 lbs. and under, 18c. per lb.; fowl over 4 lbs., 20c. per lb.

Honey.—New honey is beginning to come in slowly, selling as follows: whole sale—extracted, 5 lbs., 17c. per lb.; 10 lbs. at 16½c. per lb.; 60 lbs. at 15c. to 16c. per lb.; comb sections, \$2.25 to \$3.25 per dozen.

Cheese.—The cheese market kept about stationary. Old cheese selling at 30c. per lb.; new at 24c. per lb., and new twins at 24½c. per lb.

Wholesale Fruits and Vegetables.

Apples were shipped in in large quantities, but the quality was generally low grade, any really choice ones finding a ready market at firm prices. They sold at 20c. to 30c. per 6-qt. basket; 30c. to 50c. per 11-qt. basket; some extra choice ones bringing 60c. per 11-qt. basket. Imported Duchess brought \$2.50 per bushel hamper and \$6.50 per bbl., while Canadians brought \$4.50 per bbl. for No. 3 grade, and \$5.50 per bbl. for No. 2's, also \$1.25 per bushel.

Ontario potatoes are coming in freely and selling at \$1.75 to \$1.90 per bag.

Montreal.

Horses.—Lumbermen were enquiring during last week, but no business was reported, although it looks as though something would result from the source indicated. The market held steady 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.—Demand for dressed hogs in the local market continued moderately active and supplies were fair and sales of abattoir, fresh-killed stock were quoted at 23½ to 24 cents per lb.

Potatoes.—There is a fair demand for potatoes, and as offerings are not in excess of requirements a firm undertone prevails. New Brunswick potato crop is excellent this year, and with the U. S. predicting a surplus of a million bushels, prices are likely to be low. In fact, \$1 to \$1.50 per bag of ninety pounds is spoken of. In the meantime, sales of Canadian potatoes take place at \$2.15 to \$2.25 per bag of ninety pounds.

Honey and Maple Syrup.—Receipts of new honey continued small, and the market held firm at around recent levels, namely, 15 cents for white clover comb, 13½ cents per lb. for brown clover comb, and 14 cents for white extracted. Buck-

Every farmer who desires to do business with

The Molsons Bank

is always assured of a courteous reception by local managers. And their object is to assist the farmer in a legitimate way, to make his land and stock more productive.

wheat honey was 10 to 11 cents per lb. The market for maple syrup was firm but the demand limited, and the volume of business small. 13-lb. tins sold at \$1.65 to \$1.75 for choicest, and from \$1.60 to \$1.30 for the lower grades. Sugar was 14 to 15 cents per lb.

Eggs.—No change took place in the market for eggs during last week. A fairly active trade continued for local consumption. Strictly new-laid eggs were quoted at 52 to 53c.; selected stock was quoted at 45 to 48c.; No. 1 candled, 44c. and No. 2 candled, 38 to 40 cents.

Butter.—The market for butter was fairly steady last week, creamery being quoted at 41½ to 42 cents for finest, while fine sold at 1 cent below these figures. Choicest dairy was quoted 37½ to 38 cents per lb., with choice 37 cents. Lower grades ranged from 37 to 36 cents per lb.

Grain.—Sales of No. 2 Canadian Western oats took place at 75 to 76 cents; No. 3 and extra No. 1 feed, at 74 to 75c.; No. 1 feed, 73 to 74 cents, and No. 2 feed, at 71 to 72c. per bushel, ex-store. Prices for beans were firmly maintained with Canadian 5-lb. pickers \$9.50 to \$9.75; 3-lb. pickers \$10.25 to \$10.50; Rangoons, \$8.75 to \$9.00; yelloweyes, \$8 to \$8.25, and Japans, \$7.50 to \$7.75.

Flour.—The market for flour declined in sympathy with the market for wheat. Manitoba first patents were \$12 per barrel, in bags, seconds, \$11.50, and strong bakers', \$11.30. Ontario 90% patents, \$11.50 to \$11.80 per barrel, in wood, and \$5.60 to \$5.75 per bag.

Millfeed.—An easier tone was noticeable in the market for bran as a result of more liberal offerings, sales having been made at \$34.50 per ton; shorts, \$40; middlings, \$48 to \$50; mixed mouille, \$55 to \$56, and pure grain mouille, \$60 to \$61.

Hay.—The market was unchanged 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 25c. at \$2.25 each; calf skins were steady at 36 and 38c. per lb. Beef hides declined 1c. at 24, 25 and 26c. per lb. Horse hides, \$7 each. Rough tallow, 3 to 6c. per lb.; rendered, 11 to 13c. per lb.

Chicago.

Cattle.—Beeves, \$7.50 to \$17; western steers, \$6.50 to \$13.25; stockers and feeders, \$6 to \$9.50; cows and heifers, \$4.65 to \$16.25.

Hogs.—Ten cents to 15c. higher. Light, \$16.65 to \$18.35; mixed, \$16.65 to \$18.50; heavy, \$16.45 to \$18.45; rough, \$16.45 to \$16.70; pigs, \$11.75 to \$16.25. Sheep.—Lambs, native, \$11.40 to \$17.60.

Cheese Markets.

Belleville, 21¼c. and 21.5-16c.; St. Hyacinthe, Que., 21¼c.; London, 21c.; Watertown, N. Y., 23¼c.; Montreal, finest westerns, 21¼c.; finest easterns, 21¼c.

A Change in Seed Prices.

Attention is directed to the fact that Geo. Keith & Sons of Toronto have reduced their prices on Timothy and fall wheat below those stated in their advertisement, this issue. A card addressed to these seedsmen at 124 King St., East Toronto, will bring full information. Their fall Bulb Catalogue is now ready to be placed in the hands of interested parties. A request for same will bring it to you.

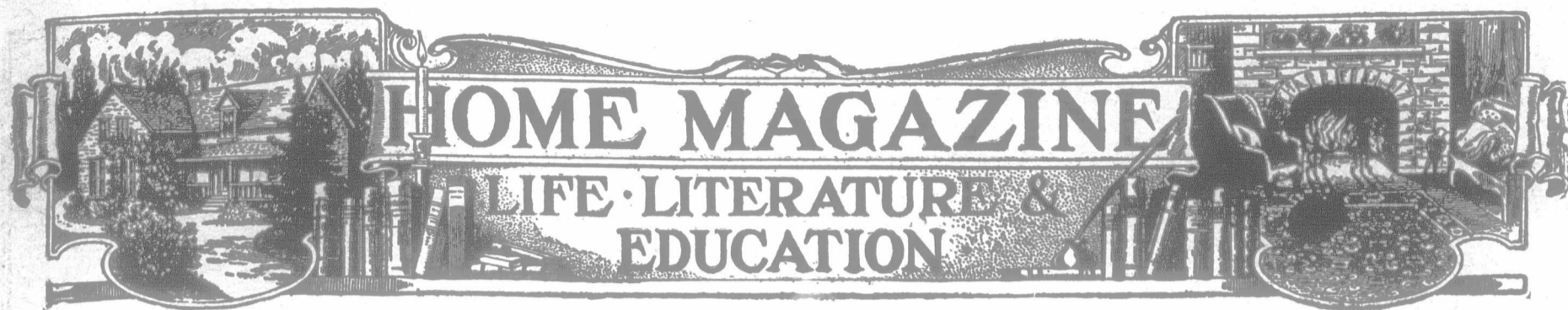


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What We Saw at the Big Fair.

BY M. CLERHEW.

FROM a quiet, peaceful almost primitive camp on the shores of Georgian Bay to the teeming life and very up-to-date displays of the Canadian National Exhibition, where eager crowds good naturedly push and jostle each other, and the latest thing in aeroplanes sweep over one's head with a startling whir, is almost enough to make one believe one has been dreaming and awakened in a new century. Dreaming, or waking one must take it all in, and give out the impressions received to those who stay away.

Being a woman one naturally rushes first to the Women's Building, to see what has been accomplished by and for one's own sex, and it is rather a shock to find that after all the warnings we have had about production, the conservation of food, and the need of socks and Red Cross supplies, there are still women and girls who take time to crochet edging for towels, set insertion in sheets, and embroider beautiful silk underwear and table linen. Then we remembered that some must earn their living this way, and some of this very elaborate work may have been started and finished before the war was thought of, although most of it looked very up-to-date.

Nevertheless, we turned gladly to the exhibit of the Secours National, where useful garments for young and old have been fashioned with dainty care by women who, in their own peaceful homes, realize that others far away are without homes and dependent on the charity of the world.

Among other exhibits there was work done by wounded soldiers during their convalescence. Most of it came from the Ontario Orpington Hospital and was well worth seeing. We looked with wonder at a knitted scarf in pale blue and white wool, which took one of the first prizes, and looked as if it had just come from the white fingers of a girl instead of from hands which a few weeks before had been wielding the spade or heaving shells into the open mouths of death-dealing cannon. There was also a beautiful shawl in a rather intricate stitch, netting, basket weaving, wood carving, a pen rack, watch charms, and hatpins formed from bullets and cartridges, and some pieces of embroidery, one especially noticeable one being the coat of arms of New Ontario done in colors with many fine stitches, by a private in the 52nd Canadians. An offer of £1 had been made by the Princess Patricia for this piece, and it was well worth it.

WHAT we know about clay modeling might be written on a postage stamp, but as we stood gazing and wondering why some figures pleased us and others did not, we decided that a thorough study of anatomy was one of the first requisites of a successful modeler. While standing before the figure of an old man, by Hainoff, with a weary droop to head and shoulders, which appeared particularly good, we entered into a conversation with an intelligent Italian who was examining the exhibit with a thoroughness that spoke of knowledge and appreciation, and he pointed out a head of "The Bracca," which he thought an excellent model from a cast. It was by Miss Sheppherd.

When we suggested that perhaps Canadians were lacking in the artistic sense, he protested that we lacked neither intelligence along that line nor talent, but good teachers and proper encouragement. We wondered, but as he left us he handed out a card which proclaimed that he was a maker of statues. Near the clay modelling were some excellent samples of wood carving and a model tank in ebony and silver.

The school children's exhibit drew crowds of admiring mothers, sisters and even brothers, and was certainly worth while, from the pen and ink sketches, flowers done in water colors, and specimens of writing, to the tiny rompers, nighties, aprons, bags and undershirts with their many carefully taken stitches, these being nearly all from junior second classes.

The Soldiers' Comforts booth had nothing especially new to us, except a knitted nightcap very much like a small boy's toque, but knit of fine, soft wool, which they tell us is also used on board ship by those with head wounds.

Mrs. Van Koughnet gives the following list of comforts which are practical and acceptable: Socks, Service Shirts, Handkerchiefs, Towels, Gloves, Mitts, Wristlets, Half-mits, Chocolates, Cholera-bands, Balaclava Caps, Sleeveless Sweaters, Scarfs, Boots and Bootlaces, Foot and Insect Powder, Respirators, Toilet Paper, Pens, Candles, Trench Cookers, Christmas Stockings, Cakes, Puddings, Packages of Raisins, Figs and Dates, Nuts, Soup Tablets, Oxo, Chiclets, Chewing Gum, Pipes, Tobacco, Cigarettes, Mouth Organs, Playing Cards and Games, Magazines and Small Books.

To prove that we have not forgotten our girls in ill health while thinking of our boys overseas, "The Women's College Hospital" have a booth where they give out information about their institution, and incidentally sell box lunches and candy to raise a little money for their very excellent work. They started in one room with the idea of providing accommodation at a lower rate for girls who need expert nursing and care. They now have thirty beds and demands for twenty more. The hospital is run entirely by women and has also women doctors, although others may be called in at the wish of the patient. The women on the board are anxious to get the farm women interested enough to send donations of jelly, preserves, fresh fruit and vegetables, and will gladly pay express charges on these, the address is Women's College Hospital, 125 Rusholme Road, Toronto.

FALL Clothes.—Being rather weary now we turned to what is always a delight to the feminine eye, even in time of war and stress, when we do not dare make purchases, the latest thing in clothes. We were agreed we had never seen a more attractive exhibit, everything seemed sensible and wearable. The newest suits have coats to the knees with perfectly straight lines, any fullness there is being in the well-pressed pleats. There is no visible waist line, but decorative pockets, which lie flat instead of sticking out as they did last year. There are also many buttons of medium size used on the coats, and collars of fur much on the sailor collar shape but coming up high around the neck. Skirts are plain and not so short as they were worn last winter, the colors being chiefly navy and brown with an occasional dark green, and the less expensive furs, such as coon, opossum and dyed rabbit are used for trimming. The separate coats are long and hang straight from the shoulders, but a few are belted with narrow cross-over belts.

The one-piece or coat dress is with us still and has not changed much in style, but has long graceful lines. Shirt-waist suits are to be worn again, and in costumes the skirts are draped on the sides.

All types and tastes may be suited with hats this fall, as there are very large, small and medium ones, all being equally fashionable. Some of the smartest shapes are fashioned of the ever-becoming black velvet, while others are in the bright-colored felts, the larger ones much on the sailor shape, and the smaller ones modified tricorns or closely fitting toques.

For the younger girl we saw cosy grey coats in soft grey chinchilla cloth, very

thick and warm looking, and pretty grey felt hats to go with them.

We have read a great deal about the sensibleshoes which would appear with the fall, but the very high heel seems as much in evidence as ever, and also the high upper; however, if you persist you will find that they can give you well-cut, high shoes with low, broad heels and sensible soles.

In the home furnishing line gay chintz in large patterns are still very much to the fore for bedrooms and living-rooms, and go well with the ever useful willow furniture. Couches are covered with a figured velvet which seemed strong and durable, and can be used where chintz is not practicable. One firm had a display of Italian furniture in dark woods, copied from the old stone benches and chairs, the carving being touched with gold and bright colors, and the seats of the chairs upholstered in Italian wool tapestry.

THE Applied Arts Building had so much of its space taken up with the Persian Exhibit that there was very little left for other things, but it certainly was interesting, and one could not help thinking that the Persians could give us pointers on the care of precious things when we saw how small patches of precious work were sewn together much as a patchwork quilt, just to preserve samples of beautiful work.

The exhibit is in charge of Mirza Ali Kudi Kahn, N. D. Commissioner General of Persia, and was first exhibited at the Panama Exhibition and belongs to the Shah of Persia.

The million dollar rug is really an immense piece of tapestry, which had been used for a rug on occasions. It took one hundred women ten years to make it, and is on a bright yellow ground with the palm leaf or paisley pattern, based on the tree of life embroidered on it. The design starts from a centre medallion and radiates outward with a deep border in larger palm leaf design. The work is exquisitely fine and the colors beautifully blended, being chiefly red and green. It is centuries old, and in reality valued at one hundred thousand dollars. There are many other rugs in palm leaf design and showing all the colors of the rainbow blended harmoniously, one covered with most weird-looking men, horses and other animals worked in very fine stitches.

A scroll with the Koran written on it in letters so fine that one would need a microscope to read it had the principal verses written in characters about an inch long on top of the others, this is valued at thirty thousand dollars and is five hundred and five years old. There are also illuminated books of the same period done in wonderful detail and well preserved, some with exquisitely lacquered covers. These with ancient pottery almost invaluable, beaten brass and figured velvets which have seen years of service make up the exhibit.

We must not forget to mention the illuminations, as they included a church honor roll decorated in passion flowers, which seemed particularly appropriate, and showed careful work, also another with the flags of the Allies and British coat of arms, in which the detail was noticeably well worked out.

Two privates overseas had etchings which showed originality, one of the men being wholly untaught.

The exhibition of the Toronto Camera Club was particularly good although not very large.

DAIRY Achievements.—From Applied Arts to the Dairy Building may seem a strange jump, but proved to be a restful one. Here there was an interesting display by the Ontario Department of Agriculture, of milk and cheese dishes daintily arranged and looking very appetizing, printed recipes for

which were handed to all who desired them. These with other books on preservation of food, home canning and planning of meals may be had by merely sending one's name and address to the Ontario Department of Agriculture at Ottawa. The soft cheese-making recipes seemed especially interesting.

The hour spent at the butter-making competition was something to be remembered. The way the four competing deftly handled their cream and butter, making every movement tell, was a lesson in efficiency and cleanliness. A mother and very young daughter worked on opposite sides of the room as rivals for the prize, this being the second year they have tried. All seemed to work carefully and without hurrying, although time counts in the summing up of points. At time of writing the prize had not been awarded.

THE Government Building.—When the Government Buildings were reached we began to feel that our education had been sadly neglected. We stood in amazement before the things made from flax, and wondered why everyone did not grow flax. There were mattresses and aeroplane wings, beautiful creamy note paper and heavy, strong leggings for men, sailor caps for boys, and linens fine enough to delight the daintiest of housekeepers, and coarse enough to use for kitchen towels or an effective background for heavy embroidery. We are all so ready to take these things for granted that it is really an awakening to get a glimpse of the processes they must go through before coming to us ready for use.

We will all have more respect for our all-wool serge suit and grumble less at the cost after seeing what the wool goes through before being woven. An old loom which has been in use since the year 1800 had a fascination for us when we thought of the yards and yards of thread skilful fingers had woven into strong cloth on it. We wanted to compare it with the 1917 model across the room, but as that one was not completely set up could not.

The specimens of work from the Montreal Handicrafts Society were certainly worth while, one counterpane being especially artistic and beautiful. It was woven in white cotton with a cross thread of wool, which gave it softness and pattern in a soft shade of blue. It was dainty enough for any home, as were also others in rose and white.

A Massachusetts firm had an exhibit of mohair plush which was in pretty colorings and would make very durable coverings for furniture in every day use.

The Ontario Government Thrift Exhibit was well arranged and full of interest, the breads containing seventy-five per cent. wheat and twenty-five per cent. oats, barley, rye or corn flour, looked only a little darker than our usual wheat loaf and tasted just as good.

The comparisons shown in regard to the prices of things with approximately the same food value were startling, for instance:

- 25 cents' worth of cheese is 14 ounces.
- 25 cents' worth of meat is 11.4 ounces.
- 25 cents' worth of bacon is 10 ounces.
- 25 cents' worth of milk is 2½ quarts.
- 25 cents' worth of potatoes is 9 pounds.

The demonstration of the canning processes was done in a boiler using a fish rack on the bottom so that the water would circulate underneath the jars, and proved that the elaborate canners advertised are not a necessity, a little ingenuity at home providing all the apparatus necessary, but the water must circulate underneath the jars. Good canning and canning without sugar was also demonstrated. Nearly all fruits and vegetables can be dried and every home has the

requisites for the process. It may be done on pans or plates in the oven, with the oven door left partly open, or on trays suspended over the stove and covered with cheesecloth to keep off flies and dust. The back of the stove may also be used, or they can be laid in the sun on sheets of paper or cotton, but always covered with cheesecloth, one of the first requisites being perfect cleanliness. It is impossible to give the actual time for drying, a little experience will soon teach the right time. Vegetables should be dried until they are leathery when taken from the dryer, as they will mould if not sufficiently dried. Great care must also be taken in the packing, but it is taken for granted that you send for books on canning and drying as they give time tables and most explicit directions.

I had almost forgotten to mention before that all bread, cake and most of the canned fruit on exhibition was donated by the exhibitors to the military hospitals after being judged, so that we only saw very small dried up samples of bread and cake. The specimens of canned and preserved fruit were still on view, and proved that many of our housewives did not need official demonstrations.

The Ontario Vegetable Crop Growers' competition from prize-winning fields was a much finer display than that of vegetables in the Horticultural Building. One new specimen to some of us was the Italian Squash, which looked like an elongated vegetable marrow, and probably would taste like one also.

AT the demonstration booth the new war loan is being advertised and sold by a charming woman. She is trying specially to get boys interested in it and in this way interested in their country. While we stood there one boy listened respectfully to her, but walked away in apparent indifference; however, in a few minutes he was back with a comrade to inform her that they had \$8.60 between them. They went away rejoicing that when their money came back to them it would be \$10.00 instead of \$8.60 besides bearing interest. Apparently their thoughts were selfish, but having even that small interest in the financing of the war will bring it and their country's needs more into their thoughts, and besides teaching them the value of saving, the thought that they are helping their country will make them better citizens.

WHEN we reached the Alberta Exhibit, we could not help admiring the artistic arrangement of grasses, there being sixty-eight varieties, and we heard a man who should know say it was the best exhibit of the kind he had ever seen.

Alberta is doing her best to advertise herself as a dairy country, and the Edmonton City Dairy had sent six hundred pounds of butter, which had been moulded into three squares. These squares were curved, the first showing a log cabin and sheds with one lonely cow, the next a large milk can, labelled the connecting link, and the last, the result, has a fine farm house with barns and herds of cattle.

The best advertiser of Canada I have ever encountered was in this section, and proved to be a man who had come from the United States sixteen years ago with a family of five boys and two girls, settled on land north of Calgary, and now has three sons and two daughters, all of their own, who would in all probability have been working for others had he remained in the States. "Although I am not what you would call a rich man," he said, "I have been able to help my children to have homes of their own and live comfortably myself while doing it." He had been hurt by hail twice and knocked out once, but with true Western optimism said he would not be afraid to start all over again if he had ever thing to recommend it. He had a fine home, a good car, and a fine family.

A special effort was made to exhibit a fine collection of seeds, and the Government is certainly doing its best to help the farmer. A fine collection of seeds was shown, and the National Service, Ottawa.

The Exhibition is coming to its exhibit of many well known by many.

ing recreation hours compared favorably with work in the Women's Building, that from the hospitals for the insane, feeble minded and epileptics being excellent. The farm products from the same institutions were also up to the mark in every way.

The Horticultural Building, although beautifully arranged in the way of palms, ferns and foliage plants, was a great disappointment in regard to the variety of flowers, except for the gladioli, of which there was a profusion. The usual flower garden patch being turned into a vegetable garden certainly made a difference in the flower exhibit, but the vegetables were not up to the mark either, so we came to the conclusion that people were canning and drying their best vegetables instead of exhibiting them as in former years.

In the Process Building looms were weaving khaki blankets and men's worsted suitings. Women seemed to have no part in this so we did not linger, but could not pass the potter's wheel where an interesting man told us about the kind of clay used, how it was fired and why some glazes cracked. A young lady, working only with her hands shaped graceful vases and bowls, of which there were a few finished samples, colored in delicate greens and blues.

After having gone through in imagination all the horrors attributed to the fly in the Government Building, we were much interested in the display of screens, and delighted to find that one firm was making screen doors strong enough to stand all kinds of strain.

The electrical display must be interesting to many, now that electric power has been brought within reach of so many rural homes. The washing machine, which can be attached to any socket and run at less cost than an iron or toaster gave one visions of tired backs straightened, and time for the enjoyment of home, and the ever inviting outdoors.

The "Kiddy Coop," which would be such a help to the average mother, seemed almost prohibitive in price, but a man handy with tools could easily make a very satisfactory one.

The stove exhibit is good this year, and we were glad to see that more and more the steel range is being used with many of the parts enamelled, making it easy to keep clean and doing away with the everlasting black leading which our mothers thought so necessary. Improvements are made every year on the coal-oil stoves, and when we enquired why some people seemed to have their burners burn out so much quicker than others, the man in charge crisply remarked that they probably did not keep their oil tank supplied.

Kitchen cabinets and vacuum cleaners and sweepers seem to have about reached their limit, as we could not see any noticeable improvements in them or in cream separators.

The milking machine has been written up so often that we only gave it a passing look, but could not help wondering what would be the cow's opinion if she were allowed the privilege of speech.

THE Art Gallery.—From the practical and useful to the artistic and decorative, is but a few steps at the Canadian National Exhibition grounds, and we were glad to forget stoves and cream separators, and feast our eyes on the many beautiful pictures exhibited this year. To the left near the entrance is a portrait by Laura Maffei, A.R.C.A. of Peter, son of Major Marshall, B.S.M. It seemed to stand out from all the other, as we entered. It is the portrait of a beautiful child with the thoughtfully earnest gaze that many children have, and yet with a little behind it all, which said, "I can do better." One could not help wondering in one moment what serious gaze, if this life would also have to be spent like that of the father, in the study and turmoil of war, or if the mother's smile, joy, and love would not be hidden.

Gertrude Spar Court, A.R.C.A., has a fine oil picture of King Arthur, the King of the Britons, and the lady is King Arthur's daughter, Guinevere, the queen of the knights of the round table, and the king is King Arthur, the king of the Britons.

A landscape of our own country, by Wm. Baymore, C.M.G., A.R.C.A., was a fine picture, and the artist is a man who has spent some of his life in the field of the artist, and in the field of the farmer. He is a man who has seen the life of the farmer, and he is a man who has seen the life of the artist.

troops lighting up the tents in the distance, a remarkably striking effect in light and shadow. This picture is the work of F. M. Bell Smith R. C. A.

George Reid's R. C. A. 1917, was a picture of women and girls at sewing machines, cutting table and hand work. This should live forever as a beautiful picture of the lives of some of our 1917 women.

Another picture of beautiful light and shadow was one of "Canadian Peasants," seated and standing by an old-fashioned fire place.

"West Wind, Algonquin Park," of the Cubist school, by Thomson, since drowned in Northern Ontario, looked straggly and wind torn, and not having yet come to the point where we could appreciate this new style we passed it with a glance at first, but found ourselves drawn to it more and more, finding something new every time we stood before it.

Being Canadian we have dwelt chiefly with Canadian pictures, as they mean more to us, but all the rooms are full of beautiful pictures that it would take more than the whole two weeks of the Fair to study, and not being an art critic makes it hard to pick out any but those which appealed most to us. The French portraits of men were especially good, and the 1870 war pictures are so different from the ones of the present war that they seem centuries old.

NORTHERN Ontario. We turned next to the model log cabin, which holds the Northern Ontario exhibit, and the cabin itself is well worth seeing. The quality of the vegetables and grains grown in this northern country certainly is excellent, and gave us a little surprise, as looking at the cabin itself one could only think of deep woods and the scent of balsam and spruce.

The Canadian war pictures have to be seen to be appreciated, and looking at them one felt not so much the horrors as the unselfish helpfulness of the men to each other. The serious faces of the returned soldiers selling catalogues made one feel more deeply what they had been through, than anything that camera had caught. The money gained in this way is to be used for a monument to the comrades who have fallen for their country and the cause of freedom.

MUSIC. The sight of the soldiers reminded us that we had not enjoyed any of the music of the bands, so we trotted along to a seat by the band stand, and listened first to a regimental band, which discoursed medleys of national airs and popular music with good effect. The high standard of musical works given by the Innes Band, and received with so much appreciation by the crowds who gathered around to listen, was an earnest of how the taste for really fine music has grown in the last few years. Mr. T. N. Innes, the conductor, seems to have appreciated this fact and given us only the best, beautifully rendered both in regard to technique and expression. Quite an innovation in band music was the doing away with some of the brasses, and the introduction of stringed instruments.

The Hawaiian Band drew such large crowds to the Transport Building that no business could be done during the hours of their performance, and they had to be moved to the Horticultural Building for half time, both morning and evening. They were certainly interesting and have music literally at their finger tips, swaying with the rhythm, and grave or very gay with its passing mood. Much of their music is in a minor key, and has a haunting sweetness that lingers with one for hours. They sing as they play, and there were many fine male voices and one particularly good feminine voice, apparently the leader.

To come back to every-day things, all through our windings we had been looking for something that would be of help to the general public, the lines of production, but found nothing. After making pointed enquiries of officials and others involved we came to the conclusion that now that most of the producing was over for this season, we are thinking only of the storing and preserving of our production. One man volunteered the information that if the city people kept on producing, as they had this year, the gardeners would soon produce only for the canners, which would be better for himself and also for us. We know

that city girls have been great producers this year, working until dark after long hours in office, store and factory, and gaining in health and experience, and also in a greater appreciation of the work of their sisters on the farms.

Noted Women.



Frau Cosima Wagner.

Frau Cosima Wagner is a German, but art, at least, knows no nation. The following account of her, by Archie Bell, has been taken from *The Bookman*, N.Y.

I asked a journalist who had interviewed popes, emperors, kings and the most celebrated men in all parts of the world: "Who is the greatest woman in the world?" He replied: "There are two: the Dowager Empress of China and Cosima Wagner of Bayreuth, Bavaria." Since he spoke, Hsi Tai-hou has gone to her ancestors and her sceptre is held by no successor; Frau Cosima is still enthroned at Bayreuth, but her court is one of ghosts and memories. But the favorite daughter of Li-zi, whom Richard Wagner called "the greatest musician of them all," is an unseen queen. She is blind, very feeble, and seems only waiting the final summons from earth. Her throne is now in a balcony overlooking the reception-room at Villa Wahnfried, where Richard Wagner spent the happiest days of his life, and from the windows of which his grave is visible in a little plot of garden now covered by English ivy. She hears the guests arrive and depart and listens to their conversation, but Cosima remains unseen. She has not the strength to meet strangers and meeting old friends causes too much excitement and is invariably followed by the flood of tears which the physicians have said accounts for her present condition and must be avoided. Cosima sits in her gallery and the guests come and go; but she might be with the celebrated father of whom she seems to be a living image, so far as her presence is revealed to those who pay her homage at her beautiful villa.

Cosima's daughter, Eva Wagner Chamberlain, and her husband, the Englishman, Stewart Houston Chamberlain, invited me to Villa Wahnfried just at the outbreak of the present war, that I might have but a peep at Frau Cosima and hear a few details concerning her that have not found their way into the vast literature that has been written concerning her and her circle. As I was entering the tree-bordered avenue that leads to the villa, Ferdinand, King of Bulgaria, was just leaving. As he reached the stone steps, he said to Cosima's son-in-law: "I have just heard the French language spoken more perfectly than ever before in my life."

"Yes," explained Chamberlain, "he has conversed with Frau Cosima. He requested that privilege, and she, hearing him, said: 'A king does not request—he commands.'" So he was taken to her balcony and they have been together for two hours.

Frau Cosima wanted to go into the house-garden and she was assisted in descending the stairs by her daughter. "Ah, the roses are still in bloom, I see," she said, catching their fragrance. "Listen!" A thrush was warbling in the Hofgarten that comes to the back fence of the Villa. "Take me nearer to him,"

she said, rustic ben song. Frau stood. It seemed to sang the thrush re and Frau There see standing l to be alm

At leng Cosima st that brou They pau old lady fingers an They step a slab of Wagner years, dro tomb and breathe the house but to be retire. It hours' an king—and fearful of

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she said and Eva Wagner led her to a rustic bench. The thrush continued its song. Frau Cosima listened and understood. In a cracked, ancient voice that seemed to come from another world, she sang the Bird Song for Siegfried. The thrush replied more shrill than before and Frau Cosima repeated her song. There seemed to be an uncanny understanding between them and both seemed to be almost merry in the experience.

At length the thrush flew away. Frau Cosima smiled sadly and gave a signal that brought her daughter to her side. They paused beside a rose bush and the old lady reached out her bony Lisztian fingers and twisted the stem of a rose. They stepped to the ivy plot bordering a slab of granite and the widow of Richard Wagner, following a custom of many years, dropped the daily flower on his tomb and her lips murmured, as if she breathed a prayer. She came back into the house and was led not to her balcony, but to her apartments, where she could retire. It had been an exciting day—two hours' animated conversation with a king—and her watchful daughter was fearful of the result.

"I knew her for years before I came into the family," said Chamberlain, "and now as then, she seems to me to be the most marvellous woman in all the world. Memory? There seems never to have been such a memory as hers! She is able to give a verbatim report of a conversation that took place twenty, thirty, even forty years ago. She seems to forget nothing in her vast experience of life. Just for example, most of us believe that we are fortunate in recalling the titles of books that we read years ago. Frau Cosima not only recalls the titles of the principal literature in at least three languages, but she recalls the names of the principal characters, even in novels, and sometimes she has amazed us by repeating dialogue and descriptions from books that she could not have seen for many years."

"The specialists tell us her blindness is caused from excessive weeping. Frau Cosima wept almost incessantly for eight years after Richard Wagner died, and this coupled with her work in the bright rays of the limelight at the theatre completely ruined her organs of sight. During her life with Wagner, her only thought was the advancement of his ideals. Since his death, her life has been consecrated to the fulfilment of his great desires."

"The world does not know that when Richard Wagner died, he left debts amounting to fully three hundred thousand marks and his assets did not amount to more than ten thousand dollars in American money. Frau Cosima arose to the occasion, and enlisting the services of the banker, Von Gross of Munich, she undertook the artistic and financial direction of everything relating to the Festspielhaus and the various properties of her late husband. She had made a vow to do what Richard Wagner had aimed to accomplish before his death. She worked in the theatre early and late, personally superintending the scene-painting, the lighting, the costumes, the rehearsals of the Flower Maidens in Parsifal, teaching the girls how to dance as well as to sing, coaching a great prima donna who was to sing Brunnhilde. And in addition, she was in control of and responsible for all finances. Frau Cosima not only achieved the Wagnerian ideal, but she accumulated a large fortune in so doing. She has guarded the memory of Richard Wagner as Father guards the Ring treasures."

"Perhaps the world knows or suspects as much, but there is also much that the world does not know and which the world will not know for many years—not until Frau Cosima has been laid in her grave. It may surprise many people to know that the manuscript of *Meine Leben*, the great Wagnerian autobiography—one of the subtlest human documents of modern times—is in her hand-writing. It was she who composed the voluminous record; only she it appears at the time of its composition, had the prophetic mind to appreciate its tremendous importance to readers of the present day. Richard Wagner had kept notes and diaries of his earlier life and his experiences in various cities and countries. It was Frau Cosima who induced him to devote a part of each day to reviewing them. Her questions and conversations, her requests for further details and information, revived memories that otherwise must have been lost to the world. Wagner's habit was to prompt his memory of dates and

persons by referring to old note-books and odd bits of paper. A professional interviewer, perhaps best of all, would appreciate her colossal task. His wife sat at her desk in the big music room and he paced up and down the floor, as he chatted familiarly of what now occupies a prominent place in musical history. She wrote down what he said; and then she went over her mass of notes and arranged the great Autobiography for publication.

"It is hinted sometimes in the American and English journals that parts of this autobiography were suppressed by Frau Cosima. That there were parts of it objectionable to her and that she withheld these chapters for later publication, perhaps following her own death," I said.

"I am in a position to say to you that this is not so. Why should she have had a desire to suppress what she had written for publication? No, the volumes as they appear in the original German edition are exact copies of the original manuscript."

"And is there no 'authorized' Life of Cosima Wagner? Has she never authorized her own biography, her memories of her celebrated father, her life as the wife of Hans von Bülow, as the wife of Richard Wagner, and as the great and dominant figure of Bayreuth, the acknowledged centre of the musical world, as relates to the music-dramas of Richard Wagner, both in their inspiration and performance?"

"If I may digress a little before answering that question, there is another of the wonderful things about Frau Cosima. The fiercest limelight of publicity has been upon her for many years; but she has attempted to avoid it, excepting as it

of his friend. He has made frequent reference to her in his writings, but you will recall that *Meine Leben* comes to a close with her permanent establishment in Bayreuth and the erection of the Festspielhaus by the Bavarian king. From her first to the last day as his wife, Frau Cosima kept a voluminous diary. Of her style and of her ability in the selection of materials, we have ample opportunity to judge, after we know that it was she who wrote Wagner's *Meine Leben*. As I said before, Cosima guards this diary well, although it was written for publication and is in its final form at the present time. It will not appear in print until after her death and even then, perhaps not for some long time. It seems to me, knowing the principal facts in the matter, that this is likely to prove to be one of the literary and musical treasures not only of our time, but of all time."

A side of Frau Cosima that has been overlooked by the world, excepting those great musical stars who have gone to her for instruction, is that she is the world's greatest storehouse of information in regard to the Wagnerian traditions. Prior to Richard Wagner's death, she had been content and happy to be the wife of the great composer. She had heard him tell of his aims and ambitions and perhaps gave more than a usually attentive ear. She was at his side as he worked, and as heretofore related she wrote his life's story. But up to the time of his death, she concerned herself with the affairs of his household, receiving his guests, and personally arranging the details of the continuous functions at his villa, which had already become a place

she learned from Frau Cosima what she had been unable to learn elsewhere. The same with the celebrated Lohengrin, Tristan or Siegfried.

When Cosima was an elderly woman, she astounded the assembled stars at a Bayreuth rehearsal, by going on the stage and teaching the Flower Maidens in Parsifal how to dance correctly. It has been said by the experts that there is not one minutest detail of the long repertory that she does not know, exactly the inflection that should be given each phrase, exactly where characters should stand on the stage, what should be every gesture, costume, even physical appearance.

And how did she know it all? Perhaps nobody knows. She believes it all came from her love for the Master, Richard Wagner. She did not know that she knew, until it was required of her. First of all, she cherished a memory that dominated her thought and action. Her aim was to achieve his ideal. Death intervened, so she stepped into action and proved herself the greatest Wagnerian director the world has ever seen.

Frau Cosima Wagner of Bayreuth! She sits in eternal darkness, and hers is a sadness that prompts tears during the majority of her waking hours, tears that have flowed over her cheeks in a never-ending stream for many years. Daughter of the greatest pianist, wife of the greatest composer, and recipient of the world's honors, she has known the great joys and the great sorrows of a great life. She can smile, but it is not human agency that prompts the smile; rather it is the song of the thrush that lifts the eternal burden. And even to the thrush, she speaks in the language of Richard Wagner. Perhaps all history records no more absolute devotion.

Hope's Quiet Hour

These Follow in His Train.

And I looked, and lo, a Lamb stood on the Mount Zion, and with him an hundred forty and four thousand, having his Father's Name written in their foreheads. These are they which follow the Lamb whithersoever He goeth. These were redeemed from among men, being the firstfruits unto God and to the Lamb. Rev. 14:1, 4.

A noble army—men and boys,
The matron and the maid;
Around the Saviour's throne rejoice,
In robes of light arrayed.
They climbed the steep ascent of heaven
Through peril, toil and pain;
O God, to us may grace be given
To follow in their train.
By HEUER.

I want to pass on to you some beautiful thoughts which reached me yesterday, in a letter from a friend.

"I have just been reading Rev. V., with its wonderful picture of God and life in God. The principle of sacrifice, 'a Lamb standing, as though it had been slain,' as being always at the very heart of God's character, and then sacrifice worked out in time by God, 'the Lamb that hath been slain,' makes the mystery of life safe in His hands and intelligible only when He interprets 'He hath overcome to open the Book'. In these days of awful pain, it is the sacrifice for an ideal, dimly yet sincerely conceived which makes it bearable. We may not see of the travail of our souls and be satisfied this side of the grave, but the next generation will."

I cannot keep that inspiring message to myself, when it may bring cheer to thousands of bewildered mourners, who are trying to see some meaning and purpose in the sacrifice of a great multitude of young men.

We are apt to think of God as being out of the great sorrow of this war. He is in heaven and "there is peace in heaven!" Yet, when St. John saw heaven opened, (Rev. 19: 14) he saw One there—The Prince of Peace—who "in righteousness doth judge and make war. . . . He was clothed with a vesture dipped in blood; and His name is called The Word of God. And the armies which were in heaven followed Him."

Look at the chapter which my friend was studying, and you will see what is



Fair Canadian Volunteers Who Risk Their Lives Daily to Rescue Wounded on French Front.

These Canadian girls have been heroically working on the French front carrying wounded soldiers from the battlefield to the Canadian hospitals in Paris. —Underwood & Underwood.

was to the glory of her late husband, the master-composer. Liszt lies in his tomb here at Bayreuth—a tomb designed by Frau Cosima's son—but his daughter's one great ambition in life seems to have been to maintain the Wagnerian supremacy. Her life with Wagner was a blissful experience in his turbulent career, and since his death, it has been one of perpetual adoration of his memory. No, there is no Life of Frau Cosima authorized by her and she wants none. One of the first promises she exacted from me, before I became a member of the family, was that I should refrain from writing of her in whatever I might write of Wagner and Bayreuth. This was difficult, in view of the fact that from the time of my arrival in Bayreuth, she was the central pivot of the entire organization.

"But here I recall something else that seems to be known only to the privileged few. In a chest, which we call 'Cosima's Strong Box,' there is something more important to the world than an authorized Life of her would be, something that is of vastly more significance than any of the alleged suppressed chapters of Autobiography would be. Wagner recorded that he first saw Cosima Liszt at the home of her grandmother, the mother of Liszt, in Paris. At that time, she was little more than a child and he seems to have observed her only as the daughter

of pilgrimage for the great. He gladly acknowledged her as his inspiration, and she acted as a buffer between him and the great public that demanded so much of his time and attention, which she appreciated could be turned to better account. She knew of his work, presumably, much as the wife of any author knows of the growth and progress of her husband's compositions.

Here, however, came to view Frau Cosima's most amazing qualities. She was no longer a young woman when her husband died. As the world moves, she was ready for retirement from an active career. Until that time, she had not been actively engaged in the theatre. But she went to the great Festspielhaus as full-fledged and experienced artistic director and impresario. That she could master the financial situation was not so surprising to all who knew her; but she amazed even the stars and directors by her peerless knowledge of the technical details, in connection with the entire Wagnerian repertory. I recall that the late Lillian Nordica told me that she learned more in one hour with Frau Cosima, more about the interpretation of a Wagnerian rôle, than she had learned in years of rehearsal elsewhere in opera houses. Madam Schumann-Heink, who is known as "the last of the Old Guard" at Bayreuth, gladly acknowledges that

meant by "Sacrifice. . . being always at the very heart of God's character."

The Lamb which "had been slain" is standing "in the midst of the throne"—standing in such living power that seven spirits of God go out from Him into all the earth. He is living, Who "was dead", and because of that sacrificial death there goes up to Him a mighty chorus of praise from every creature "on the earth, and under the earth, and such as are in the sea," echoing the great song of millions of angels: "Worthy is the Lamb that was slain to receive power, and riches, and wisdom, and strength, and honor, and glory, and blessing."

Without the sacrifice, for the sake of others, there would have been no glory. We can see the sacrifice—the slain lamb—but death cuts off our view of what springs from that sacrifice. But a Seer, like St. John, gazing through the misty veil of death, can tell us what lies beyond. The Lamb stood upon Mount Zion, and around Him St. John saw a great multitude of the redeemed. These all sang a new song—a song which only the redeemed knew—and a voice from heaven proclaimed a great message of hope which St. John could not, dared not, keep to himself. He says: "I heard a voice from heaven saying unto me, Write, Blessed are the dead which die in the Lord from henceforth: yea, saith the Spirit, that they may rest from their labors; for their works follow with them."—R. V.

We profess to be Christians. If we really believe in Him Who "was slain" and yet is the "Living One", alive for evermore, then we are disloyal to Him if we sorrow as those who have no hope. God gave His only Son; and He knew that when that splendid young Life went down to death—a horrible death!—the Life was not wasted nor lost. He Who laid down His Life in willing Sacrifice stands forever alive in the "midst of the Throne". And so, as my friend wrote, "Sacrifice is always at the heart of God's character."

How many loved sons have been freely given by fathers and mothers since this war began! Some of those sons have fought a good fight and swiftly finished their earthly course. Is there any meaning and purpose in their sacrifice? Were their lives wasted? Listen to this message from Norman MacLean's "Great Discovery."

"We see the alchemy of Providence at work all round about us," exclaimed the Professor, pushing his fingers through his hair until it stood up all on end, an aureole of white.

"It is the flower of our manhood that is perishing," said the 'Prior.'

"Perishing!" exclaimed the professor; "they are not perishing—they are living. To talk of the wastage of life is mere cant. . . Why should we rail at death?" said he, "for death has been the saviour of humanity. It was death that made men of us. It was in the school of death that man learned unselfishness, sel-sacrifice, chivalry and honor. . . A world without death would be a world with no room for the Cross. Men climbed the heights of nobility as they defied death. The crackling flames were unable to silence the martyr's song; the march of the hosts of devouring tyranny could not move the hearts that chose death rather than slavery."

So the professor saw the "alchemy of Providence transmuting the solid substance of our humanity into living souls." Those who follow the Master of the world along the hard road of sacrifice have conquered death. Because a life of selfishness is disgraceful failure, each disciple of Christ is in duty bound to "take up" his cross daily, for only in that way can he follow Him.

Christ "pleased not Himself", yet we—who call ourselves His disciples—feel disappointed when we can't get our way in everything. He came to serve men—even stooping to wash the dusty feet of His own servants—and we are so eager to do "great things" that we fail to find out the beauty of commonplace work and lowly service.

If we are to follow in His train we must not feel it beneath us to "wash the saints' feet", nor to wash dishes.

If we are to take up the cross daily, it must be the cross that God has called us to bear. It may be only the small trials of ordinary life, or it may be some great sorrow which threatens to blot out all the sunshine. Either or both may be our portion.

We are called to follow the Lamb—"The Lamb of God, which taketh away

the sin of the world." He who is the "Lamb"—that word expresses, in symbol, sacrifice for others—is also the "Lion of the tribe of Juda", our mighty King, who goes forth conquering and to conquer.

The world is divided into great classes. Those who spend their lives for others are following the Lamb, for they willingly offer themselves, feeling that the greatest thing they can do with life's opportunity is to lay it down in daily service. Those who join the other class are heedless how they sacrifice other people in securing their own pleasure or earthly gain. Those who dragged the Holy One of God to a horrible death sacrificed Him to save themselves. Caiaphas openly declared that it was "expedient" to save the nation at the cost of this man's life,—as the German leaders considered it expedient to sacrifice Belgium in order to gain their own advantage. Pilate wavered between his desire to deal justly with Jesus and his desire to save himself. He saw that someone must be sacrificed, and his own safety was more valuable in his eyes than honor and justice. Judas sold his Master in order to win thirty pieces of silver for himself. Selfishness and greed of gain led men to crucify the only perfect Man the world has ever seen. Selfish ambition caused this awful war and brought misery and death to millions of people. If we are ready to sacrifice others for selfish gain we shall really sacrifice—waste in reckless folly—our own lives. Those who choose to follow the Lamb, spending their lives in willing service, never complain that life is not worth living.

Are you unhappy because you can't have your own way? Do you nurse disappointment—by thinking and talking about it—until you feel yourself hardly-used by God? Then it is very evident that self is your god and you are not choosing to follow the Lamb along the road of sacrifice.

We talk of "a disappointed life," when a man or a woman fails to win some coveted earthly good. Let us aim higher and desire something greater than personal pleasure. Do we want to be "slackers" in the army of our King? If not, let us rejoice when He invites us to follow Him up the steep mountain of sacrifice.

"Shun not the struggle—Face it, 'tis God's gift."

DORA FARNCOMB.

From A Soldier's Wife.

One of our readers, who is working the farm while her husband is at the front, has sent five dollars for the Quiet Hour purse. She says she has so much to be thankful for, her husband (in France) is safe and well, she is able to go on with the farm work, the children are well and the crops good.

This money will provide food for some children who have recently lost their father, and another family where the father is dangerously ill.

HOPE.

The Dollar Chain

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

Contributions from Aug. 31 to Sept. 7: John Smith, R. 3, Hagersville, Ont., \$5.00.

Amount previously acknowl- edged.....	\$4,882.55
Total to Sept. 7.....	\$4,887.55

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

Recruiting Officer.—"How about joining the colors? Have you any one dependent on you?"

Motorist.—"Have I? There are two garage-owners, six mechanics, four tire-dealers, and every gasoline agent within a radius of 125 miles."

The Fashions.

How to Order Patterns.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

See under illustrations for price of patterns shown in this week's issue.

When ordering, please use this form:—
Send the following pattern to:

Name.....
Post Office.....
County.....
Province.....
Number of Pattern.....
Age (if child or misses' pattern).....
Measurement—Waist..... Bust.....
Date of issue in which pattern appeared.....



9454—One-piece Slip-On Dress for Misses and Small Women, 16 and 18 years. Price 15 cents.



9374—Apron, 34 to 44 bust. Price 15 cents.



9515—One-piece Dress with Bloomers. 6 to 12 years. Price 15 cents.



9526—Princess Coat Dress, 36 to 46 bust. Price 15 cents.



9507—Dress with Over-Skirt effect. 34 to 42 bust. Price 15 cents.



9477—A Girl's Overalls, sizes 16 and 18 years. Price 10 cents.



9475—Three-piece Skirt, sizes 16 and 18 years. Price 10 cents.



9487—Surplice Dress, 36 to 46 bust. Price 15 cents.

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.]

It was six o'clock in the morning, and Mary, as she stood before her dresser hurriedly arranging her hair, had a worried little pucker between her eyes.

"Both the old meals," she was saying to herself. "What in the world shall I have to-day?" And then a vista of all the years that were to follow this first month of her married life came up in startling procession. "Good gracious," she thought, "if I'm stuck as soon as this, what am I going to do for all those thousands of meals?"

Then the pucker cleared away. "I know," she thought bitterly, "I'll get the last number of the Sunrise Magazine. It always gives menus."

So she flew to get the magazine and hurriedly turned over the pages.

"M-m-m! Oh, here it is!—'Breakfast: Grape fruit, codfish on toast'—Oh bother! I haven't any grapefruit and I haven't any codfish. Well, here's another: 'Ripe peaches, creamed halibut'—whoever sees halibut in this place?"

And then her eyes followed down the page where dinners were given: 'Consomme, steak with mushrooms, boiled cauliflower, pineapple sponge pudding'—"Well, there aren't any mushrooms to be had for love or money in this vicinity. Cauliflower?—yes, but ours are only about the size of hens' eggs yet. Pineapple?—Not a single can of it in the cellar.—Guess I'll have to depend on myself. Well-balanced meals, those, all right. Wonder what I have to take their place. Let me see."

A moment later Mary was surveying her larder.

"Some canned peas left over from yesterday's dinner, and some nice fresh eggs. There's protein in eggs. . . A few cold potatoes—there are my carbohydrates. John will like them; he has a hard day ahead in the harvest field. . . And here are some fresh blackberries. He had some yesterday, but one can stand fresh berries while they last. So here goes!"

When John came in with a good hearty appetite after doing his morning chores, he found the table tempting as usual,



9513—Girl's Coat, 8 to 14 years. Price 15 cents.



9476 Shirt Waist Dress, 34 to 42 bust. Price 15 cents.

with one purple morning-glory drooping over a tall vase as its centerpiece. Near his plate was a little white wicker basket of yellow harvest apples, and the natural thing for him to do was to take one up and eat it, quite unconscious of the fact that he was doing the very best thing possible in a normal diet—beginning his breakfast with raw fruit.

Then Mary bustled in from the kitchen with the usual toast and a covered dish which, when uncovered revealed a puffy golden omelet folded over a filling of green peas.

"By Jove, that looks good to me,

Molly!" he said, "and these hot potatoes, too. I like the way you fry them, sort of crispy and not too much grease."

Mary smiled, for what cook does not like to hear her efforts praised? But she was saying to herself, "Your protein and carbohydrates, Johnny boy, something to keep you going this hard harvest day."

And when the last course came on—Graham muffins that anyone can make in a jiffy, with the blackberries and sweet cream, she said to herself, "Your minerals and fats, Johnny boy. Now I guess you're all right for this forenoon." But aloud she was talking away merrily, just as

though she knew nothing at all of such resounding scientific terms as protein and carbohydrates.

"Eggs—I know they seem extravagant, at the prices they are," she reflected, as she cleared away the dishes, "but John has to be kept strong and well. He's the most precious thing, I guess. . . Tomorrow morning we'll have ripe plums to begin with, well-cooked oatmeal with cream, toast and raspberry jam. . . And the next day perhaps some peaches, stewed cucumbers on toast, cornmeal cake and syrup." . . . Really it was quite fascinating—this matter of thinking out balanced meals.

"It's all right to read up the menus in the magazines," she concluded, "they give one ideas all right, but the main thing is to hang on to principles. If you have the principles I guess the details can be worked out without much trouble."

Yes, Mary, you have the right note there, not only in regard to menus, but in regard to nearly all the problems you may meet in your home—gardening, lawn-arrangement, house-furnishing, clothes, weddings (if with the years they shall come), home entertainment, all the many other things that make up life. Get the principles, get ideas wherever you can glean them, then adopt everything to your own needs and your own circumstances. Never just follow the crowd unthinkingly. Use "your own head," and by doing so develop the power to use it more.

And Mary will do all this, for real things are the ones that count for her—shams and mere imitations nothing at all.

Many people who have had to buy cloth manufactured since the war, are complaining that the colors are not as good as they used to be. So far as the things that we buy are concerned, we are helpless in this matter, but for home-dyeing may the difficulty not just turn us back to something that should never have been permitted to die out. (No; I'm not making a pun)—the use of plants for dyes, an art well-known to our grandmothers, and to some of our grandmothers. One of the very prettiest browns may be made from butternuts—and use the nuts, please, not the bark, for trees are becoming so scarce nowadays that not one should be sacrificed needlessly. Goldenrod, too, was used for yellow. Here my knowledge on the subject is exhausted, but I should very much like to hear—and I know that others would too—from anyone who has avail-

able information in regard to other plants that were used for other colors in the pioneer days.

It would be such a help if we knew just how to use these things for the mittens, sweater coats, rugs, quilt-stuffs, etc., that are to be made up in the homes.

It was well known, even when we were getting the best aniline dyes from Germany, that vegetable dyes were better. But people preferred to buy dye-powders by the package because it was so much handier. Aniline dyes, when they fade, as assuredly they will, in time, especially in things exposed continually to the light, as curtains and rugs, fade unevenly. Red, for instance, holds its color fairly well, whereas greens and blues are likely to become almost colorless. Vegetable dyes also fade, but evenly, so that any fabric in which there is a mixture of colors keeps its beauty, often, indeed, becoming more beautiful with age as in the case of old Persian and Turkish rugs and Navajo blankets. I once knew an artist who had secured several of the latter which he wished to use as rugs in his studio. But they were new, and brilliantly patterned in red and yellow upon gray. To soften and tone them down, he soaked them with water and kept them hanging on a line in the sun for several days, and at the end of the time they were just the prettiest, most artistic things, ready to harmonize with the colorings in any room.

When the war is over—and surely it cannot last very much longer—we shall be turning to our home questions again, and shall find our interest in rugs and curtain-stuffs and such things renewed. And surely it will be a matter of pride if then, when economy will still be necessary for many reasons, we can manage to manufacture rugs and other articles for ourselves, even dyeing them beautifully at home, not following patterns borrowed from someone else, but evolving our own designs, exercising our own artistic ability. Woven rag rugs, hooked rugs, and braided rugs, are now very popular in the homes of the rich, colored, of course, to suit the wall-tones and hangings of the rooms in which they are placed. Over these, at least, the rich have no monopoly, for even in humble homes things made of rags are surely possible. The effect depends wholly upon the individual taste. Speaking of Persian rugs (which are very expensive), do you know that a distinguishing characteristic is that each detail of the pattern is outlined by a rim of a different color? Often this rim or border is but a thin line, almost indistinguishable, yet the effect on the whole rug is perceptible. Some of these rugs are very beautiful, yet it is not beyond belief that any Canadian woman who is sufficiently artistic, armed with canvas, hook and rags of the right colors, might herself create rugs almost as effective. Hooked rugs of old yarn or rags, evenly clipped afterwards with sharp scissors, may be very attractive. Of course, they may be monstrosities, but that is another story. It all depends upon design and coloring, and care in the work.

Just one more word in regard to dyes. Aniline dyes always tend to harden the wool, vegetable dyes keep it soft, another argument in their favor. Now who can tell us what they used to make red, pink, blues and green in the old old days? Quiz grandmother about it. Perhaps she can remember, and if she can she will gladly tell.

I can't get those Russian women of the Battalion of Death out of my mind. How did they do it? How are they doing it?—Facing every hardship of field and battle, meeting shell and bullet, even charging from trench to trench, looking rifles in the muzzle and encountering the glitter of bayonets, even fighting with bayonets—killing, killing, killing, and being killed!

How terribly they must be realizing the necessity for victory to have undertaken this thing!—For they are no faddists these women. They are not seeking for notoriety and the limelight. They are not women out for a romantic escapade. Their faces, in the pictures of them which have come to us, show them to be serious, earnest, terribly in earnest. "When, early in June," remarks a Russian paper, "the news of the creation of this women's battalion spread in Petrograd, some people, quite naturally, could not repress their smiles. But it must be acknowledged that they smile no longer when once they have seen, marching through the streets of the capital, with music at their head, these noble and proud young

women who are deliberately sacrificing their lives for their country."

As I write this, word comes that the German troops have occupied Riga. Before this reaches you they may be at the doors of Petrograd—who knows?—and Russian regiments are still giving up with little fight, while Kerensky and Korniloff, night and day try to stem the tide of mutiny, and bring back Russia's front invincible against the foe.

It is a fearful problem that exists in Russia. A new system of government to be formed in the midst of all the turmoil of war. Pro-German influence still at work. An unlettered peasantry that cannot see. A people so hateful of the old military domination that it is suspicious of the militarism that must still exist if this war is to be won. Poor Russia!

It is to be hoped that we women in the new world will not have to know war any more closely than we know it now. But surely, remembering the spirit of these Russian women who are facing death and dying, far from their homes, we cannot afford again to be trivial. Surely we will feel it bound upon us to become great as we can in peace, to become champions and uplifters of all that is really sane and uplifting and progressive. For the world will need enough of that when the war is over. It will all have to be rebuilt; if another war is not to come. Let us get ready for this, heart and soul. For in this women can do much. Upon them, more than they know—in the bent of mind given to the children, in the things that they want and idealize—rests the burden of forming the thought and inclination of the world. Is not this true?

JUNIA.

House Plant.

Dear Junia.—I have a plant which belongs to the amaryllis family, but which is not an amaryllis. Some call it asphodel, others asphodestus. This plant came from Scotland. Which is the correct name? I have had the plant for seven years, but it has never flowered. Kindly answer these questions and oblige.

Kent Co., Ont. EVA B. W.

Without seeing the plant it is hard to tell what it is. Probably it is the "aspidistra," which is grown for its foliage. It flowers, in right conditions, but the flowers are inconspicuous and borne close to the ground. As the aspidistra is naturally a marsh plant, it needs plenty of water. The soil should consist of rich soil and sand, "half and half."

Tomato Preserves.

For Mrs. C. S., Kent Co., Ont.

Green Tomato Preserves.—Four lbs. green tomatoes, cut in pieces; 3 lbs. sugar; 3 lemons, sliced; ginger-root to taste. Let stand for an hour or so in a granite kettle, then cook slowly until the juice is thick.

Ripe Tomato Preserves.—To a kettle of ripe tomatoes, peeled and cut in pieces add from 2 to 4 oranges or lemons, according to taste, which have been cut in pieces and put through a chopper, rind and all. Also add sugar to taste, and cook until done. If but little sugar is liked great care must be taken to sterilize the jars and seal boiling hot, as for canned fruit. If a rich preserve is liked, it may be put in small crocks, and when cold melted paraffin should be poured over the top to keep off moulds. Tie down tightly.

Knife Handles.

Janet R. writes to ask what will remove a reddish stain from a red flannel cover, from celluloid knife handles. I can find nothing on this in any of my books. Perhaps someone who has had a similar misfortune will answer.

Elderberry Wine.

For "Eleanor," Wentworth Co., Ont. Elderberry Wine.—Boil 10 lbs. elderberries in 5 gals. water for 1 hour, with ½ oz. allspice and 1 oz. well-bruised ginger-root. Put into a vessel 4 lbs. sugar for every gallon of liquid, and pour the boiling juice over. Strain well. Add 2 oz. cream of tartar and let stand 2 days. Pour into a cask or jar. Stir every other day, and leave until fermentation ceases, then close the cask, and bottle in 4 months. While fermenting the cask should be in a warm place.

Elderberry Blossom Wine.—One quart blossoms picked from stems, 3 lbs. sugar, 3 quarts water, half a lemon, ¼ cake of

yeast or a little hop yeast, which is better. Boil sugar and water together and pour over the blossoms in the morning, adding the sliced lemon. Let stand till night, then add the yeast. In the morning strain into a jar and put a piece of netting over the top. Keep in a rather warm place until fermentation ceases. Ready in six weeks.

The Cookery Column.

Creamed Liver.—Cut liver in small pieces and simmer in a little dripping for 20 minutes. Remove the liver to a hot plate, and to the dripping in the pan add 1 tablespoon flour, stirring until it thickens a little. Then add gradually 2 cups milk, stirring all the time. Turn in the liver and simmer 5 minutes longer, then season to taste and serve very hot. Nice on buttered toast or hot biscuits split in two.

Rice Mould.—Wash 1 cup rice well in cold water then drain, and add little by little to 4 cups water boiling briskly. After 5 minutes drain again, then add 2 cups milk and cook slowly until the rice is tender and the milk absorbed. Dissolve a scant tablespoon powdered gelatin in 4 tablespoons boiling water and add it to the rice with ¼ cup sugar, pinch salt, 1 teaspoon vanilla, stirring well. When nearly cold add ¼ cup whipped cream, whipped until stiff. Turn into a mould wet with cold water and when stiff unmould and serve with a little canned fruit or jam, or a sweet fruit sauce.

Baked Bean Timbales (May take the place of meat occasionally).—Put 1 cup baked or boiled beans through a potato ricer or sieve. Add ½ cup sifted bread-crumbs, 1 teaspoon scraped onion, 1 teaspoon finely chopped parsley, ½ teaspoon paprika or a dash of red pepper, 6 tablespoons stewed tomato pulp, 1 tablespoon catsup, 2 eggs beaten until well mixed. Mix well and turn into small buttered moulds or a single pint mould. Put in a pan of boiling water, having the moulds on several folds of paper, and bake until firm in the centre. Turn out of the moulds on a hot platter and serve with hot tomato sauce around.

Wheat-and-Corn Bread.—Take 1½ cups cornmeal, 1½ cups cold milk, 2 cups boiling water, 1 teaspoon salt, 2 tablespoons shortening, ½ to 1 whole cake compressed yeast, ¼ cup lukewarm water or milk, 3 tablespoons sugar, 5½ cups wheat flour (about). Mix the cornmeal with the cold water and gradually stir into the boiling water and salt; continue to stir directly over the fire while the mixture boils 5 minutes, then cook over boiling water for 20 minutes. Turn into the mixing bowl, add the shortening, and when cooled to a lukewarm temperature add the yeast, mixed with the lukewarm water, the sugar and flour, and mix to a dough. Knead until smooth and elastic, then cover and set aside until doubled in bulk, then shape for two brick-loaf pans.

The Scrap Bag.

Cleaning Knives.

If you have old steel knives in use try Old Dutch for cleaning them ordinarily. It does the work quite well and is always ready for instant use.

For Variety.

Have you ever tried raw pears or plums, cut in pieces and covered with sugar, in place of canned fruit. Most people who have tried them in this way like them quite as well as uncooked berries or peaches. Another variation is to stew them exactly as for apple sauce. Sweeten and serve when cold.

Dried Squash and Pumpkin.

Cook the squash in the shell in large pieces, either by boiling or steaming. Press the pulp through a ricer on enamelled or granite plates and dry on a rack above the range or in a moderate oven.

Rack for Drying.

Every farm home should have a three-shelf rack for drying apples, etc., to be hung above the stove. Any handy man or woman can make one with a few slats of wood and some wire netting such as is used for window screens. If provided with wire doors to drop down on all sides to keep off stray flies, etc., the rack is still better. All kinds of fruit can be dried on plates on such a rack as this; also many kinds of vegetables.

Cooking Vegetables.

Cook most vegetables in rapid-boiling water, adding salt for all except those containing much woody fibre, as turnips and parsnips. Greens, such as beet-tops, etc., should be uncovered, and always drained very thoroughly and re-heated before serving. Never take thick parings from any fruit or vegetable, as usually much of the valuable salts and other properties are found just beneath the skin. Indeed it is well, when possible, to cook in the skins, which may be removed afterwards.

Dry Celery.

Now is the time for drying celery leaves, to be used for flavoring soups and stews in the winter, or for making cream of celery soup.

A Time-Saving Hint.

When making stew or soup make enough for two or more meals and keep the leftover portion in sterilized jars, put in boiling hot and sealed down just as you would can fruit. When cool keep in a cold, dark place, and reheat when needed, any time within a week or two.

Best Peonies.

Peony roots should be planted in September in good rich soil, well worked up. When the frosts of late fall begin, cover with a mulch of straw manure. Very good varieties are: Aurore, with a crown of dark stamens. Festiva Maxima—white. Asa Gray—pink. Avalanche—white. Adolpha Rousseau—deep red. Mme Lemonier—lavender and white. Philomele—pink and yellow. Solfatare—white and yellow.

Trusting One's Neighbor.

"Did you ever hear of such simplicity as Mrs. Ogden displayed about that watch, demanded Ellen Sanders, scornfully, as she and her friend, Margaret Lane, descended the steps of Mrs. Ogden's house together, after a half-hour at afternoon tea. "It is strange to find such ignorance of human nature in a woman of the world," she added, with the superiority of her eighteen years.

"What was it?" queried Margaret, with interest. "I had only a minute or two's talk with Mrs. Ogden, and she did not mention a watch."

"It seems that yesterday she found a little silver watch down-town. She immediately advertised it, of course, stating where and when it was found, and describing the watch itself minutely, even to the monogram!"

"I think there is no doubt but that an owner will appear—perhaps several owners," returned Margaret, laughing. "What I should have done would have been merely to state that a watch had been found, without mentioning particulars," she continued, with her loftiest air. "Then if any one appeared, I should question him closely, and try to trap him into a false statement. Mrs. Ogden's trust in human nature is misplaced, as she may some day find to her cost. In the present instance she seems even to be offering a premium to fraud!" she added, severely.

The following week Margaret had occasion to call again upon Mrs. Ogden; the substance of their conversation was repeated to Ellen Sanders.

"As we had anticipated, a crowd of people came in answer to the advertisement of the watch. I could not refrain from suggesting that it was passing strange that so many should have lost the same kind of watch, on the same street, and at the same time of day, and all people with the same initials.

"But it was a monogram, and the initials might have read one of several ways," explained Mrs. Ogden, sweetly. "Besides, I always showed them the watch. If it was theirs, you know, they would have recognized it."

"Such simplicity out of a nursery tale seems impossible," said Ellen, after a moment's amazed silence.

"Of course only one out of all that crowd could have been the real owner," continued Margaret, slowly. "The others must have come intent on deliberate fraud; some undoubtedly, were professional swindlers. But Mrs. Ogden's unquestioning faith in the honesty of each and every one met, in every case, with a response. "Not one claimed the watch!"



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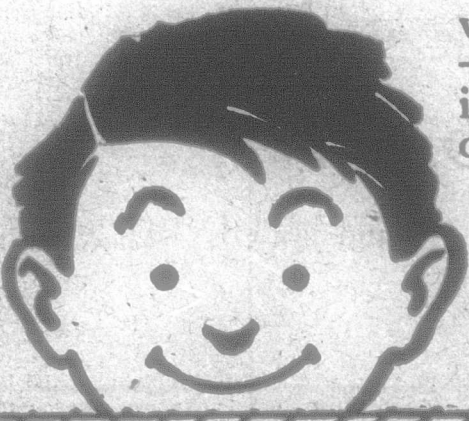
En-ar-co National Motor Oil cannot be excelled for the perfect and economical lubrication of any motor.

En-ar-co "White Rose" is a pure, dry, homogeneous gasoline that gives utmost power to the last drop.

En-ar-co National Light Oil is a white-light oil (not yellow and dim)—a "better" oil for lamps, oil stoves, incubators, etc., because it does not give off offensive odors or poisonous fumes.

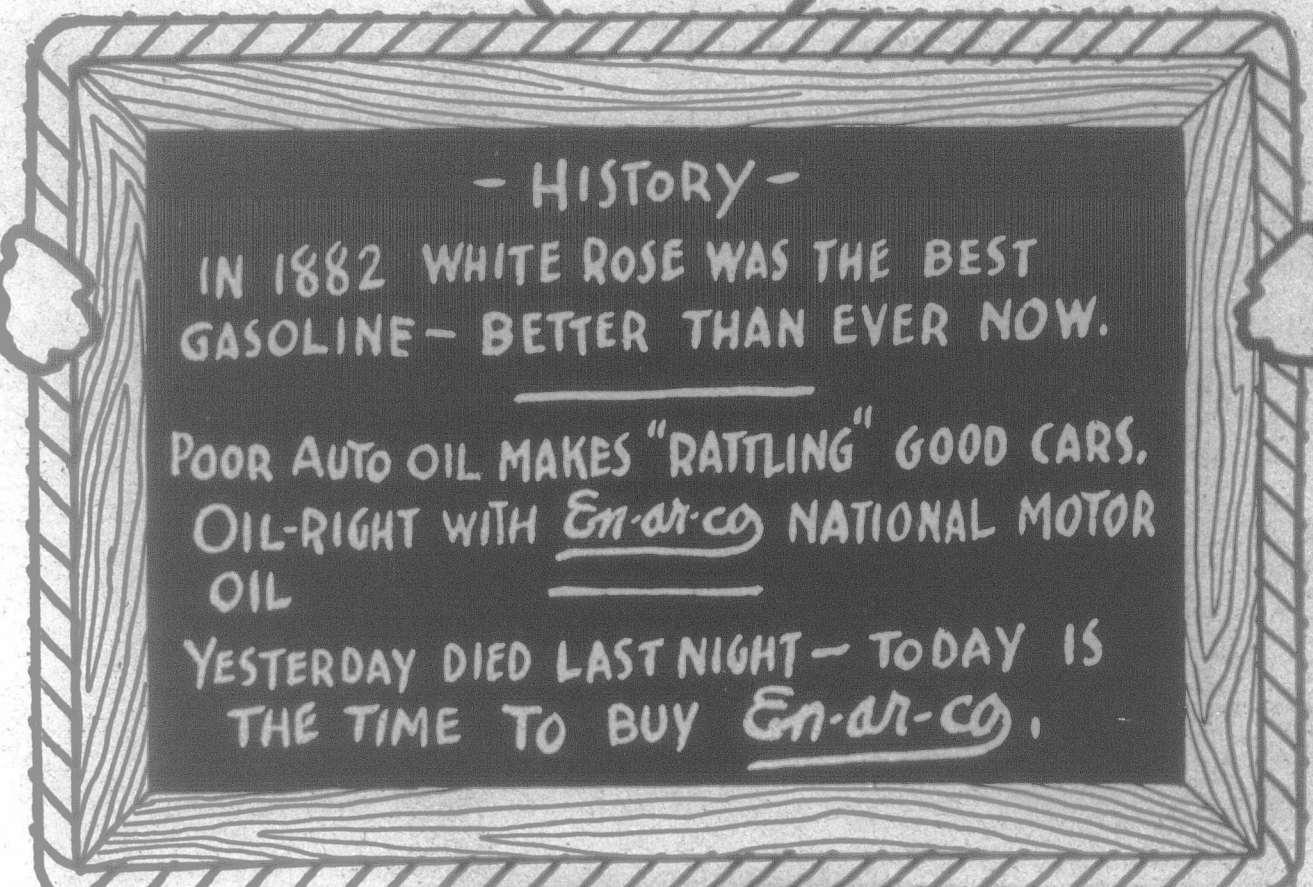
It does not char the wick like ordinary coal-oil.

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In "Perfect Seal" Quart Jars

These are the finest preserving jars made; and hold 3 pounds of "Crown Syrup".

Your grocer also has "Crown Syrup" in 2, 5, 10 and 20 pound tins.

Write for free Cook Book.

THE CANADA STARCH CO. LIMITED,
MONTREAL.

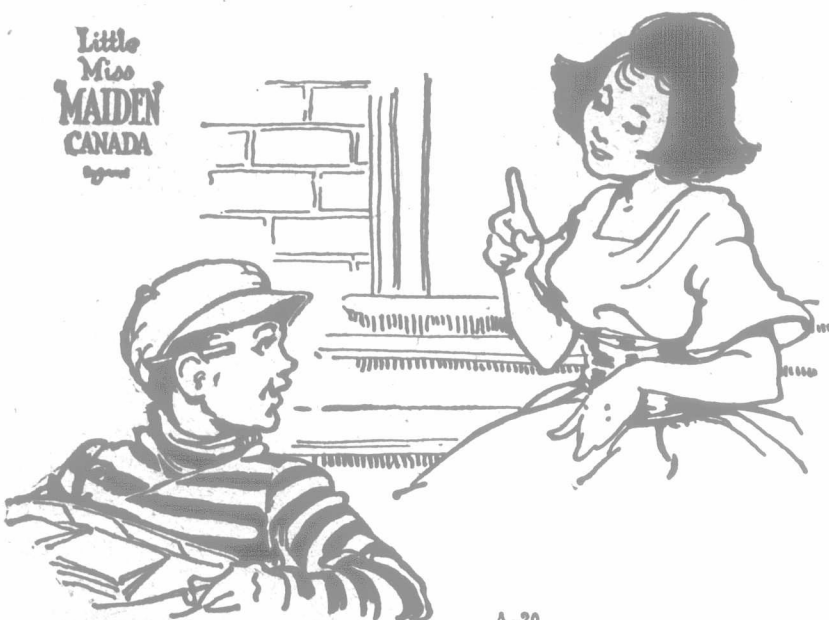
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When I ask for cocoa I want the best — and everyone knows that the best is

COWAN'S COCOA
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It is a well-known fact that in every home where quality is appreciated, this delicious cocoa may be found. It is pure and wholesome and manufactured from the best cocoa beans procurable.

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A. WATSON & SONS, Box 157, Forest, Ont.

The Beaver Circle

The Play.

BY ANNIE CHUNN CANDEE.

We've cleared a space within our barn,
put screens and awnings by,
And turned a box down for a stage, just
Eleanore and I.
We act the fairy tales sometimes, and
stories that are true,
But best we love to write our plays and
then to act them, too!

Our attics have to be ransacked for
costumes that we share;
Our mothers help, and oftentimes my
brother's clothes I wear.
He always comes and brings his friends
and sits up straight and tall,
With little Doty at his left, who brings
her dollies all.

The play our audience likes the best is
one we wrote ourselves:
We journey forth in Fairyland to visit
sprites and elves.
A gown of blue the princess wears, a
larkspur in her hand,
The knight's green hat and gold-trimmed
coat we think are very grand.

We have some wild adventures there—a
right brave knight am I;
The Princess Eleanore I save whenever
danger's nigh.
A dragon was our pussy-cat, but she
would run away!
She'd rather chase a little mouse than
act in any play!

So "make believe" are dragons now—ex-
citing things they do.
Then Eleanore and I take turns at knight
or dragon, too.
Our audience is quite polite, and, when
the curtain's drawn,
Always invites us out to play some games
upon the lawn.

Little Bits of Fun.

A schoolmistress was instructing her
class in the mysteries of the hyphen.
Presently she asked for an example, and
one of the children volunteered "bird-
cage."

"That's right," she said; "and now,
John, can you tell me why there is a
hyphen in the middle of 'bird-cage'?"
There was silence for a few moments.
"Please, teacher," said the pupil
thoughtfully, "it's for the bird to sit on!"
—"Pearson's Magazine."

Peggy had just had her first dip in the
ocean. Two seconds in the water had
satisfied her, and she ran up the beach to
her mother.

"How did you like it, dear?" asked her
mother, as she fastened up the little frock.
Peggy glared angrily at the sparkling
sea.

"I didn't like it at all, mother," she
replied coldly. "I sat on a wave, and I
went through."

Senior Beavers' Letter Box.

Dear Puck and Beavers.—You will
think me very ungrateful for not writing
sooner to thank you for sending me the
nice book. I thank you very much. It
was the first contest I ever tried, and the
first prize I ever received. I passed my
entrance this summer, and though I am
only twelve I was wondering if I would
be allowed to try any other compositions
or contest in "The Farmer's Advocate."
I am starting a scrapbook with rhymes,
riddles, jokes and stories, and I am going
to put some of the stories which appear
in "The Farmer's Advocate" also. I am
collecting "Mutt and Jeffs," Bringing up
Father jokes, and riddles to send to a
soldier.

I had read "A Midsummer Night's
Dream," but did not think of it when I
asked about Puck. Was not Puck mis-
chievous, getting into churns and keep-
ing the butter from coming? As I am
always disappointed when there are no
riddles I am sending one.

What two cities in France represent a
boy in his daddy's pants? Ans.—Tolouse
and Toulon (too loose and too long).

R. R. 8, Watford. JUNE BAIRD.

Of course you can write to Beaver
Circle—for four years yet, June.

Oh June, June! Don't blame me when
the butter won't come.

Dear Beavers.—I live on a farm and I
have two sisters and one brother. My
youngest sister and I go to school nearly
every day. The school is just at the bot-
tom of our lane. Our teacher's name is
Miss Martin, and we all like her fine.
For pets I have three guinea pigs and
three bantams. We are going to have a
"school fair" this year, and it is going to
be held about three miles from our place.
Well, as my letter is getting long I will
close, hoping the w.-p. b. is asleep when
this arrives.

STANLEY NORRISH.
Campbellville P. O., Ontario.
(Form IV, Sr. Grade, Age 13.)

Dear Puck.—I am writing once again
from England. This time I am sending
you a poem which I wrote when I was
in the town; if you think it is good enough
please print it for the Beaver Circle.
There isn't much in this letter, so I don't
think you need take up your valuable
space and time by printing it Puck!

LUCY HARWOOD.
Lee's Rest, Charlbury, Oxon, England.

Calling to Me.

There where the Thristle its gay note is
ringing;
There where the lark carols over the lea,
All Nature's voices their sweet chants are
blending,
Calling to me!

"Come from the dust and the fog of the
city,
Leave all the smoke and the toil and
the care,
Come from the rumble and roar-of the
traffic,
Calling me there!

There where all Nature is kissed by the
sunshine;
There in the summer where butterflies
roam,
There where a songster trills joy-notes
unending
Calling me home!

Calling me back to that place which I
worship,
Far from the town's discontent and
melée,
Home to the beautiful, beautiful country
Calling to me!

Sweet zephyrs murmuring over the hill-
sides
Sweep, where, in the shadows, the
stream's gleaming black
Changes to crystal where sunbeams are
glancing!
Calling me back!

"Come to the land of the hills and the
valleys,
Come to this land, evermore there to
roam,
Leave all the dearth and the fog there
behind thee"
Calling me home.

There will I go from the toil and the
tumult!
Farewell! 'O city! thy care and thy
strife!!

Nature and birthplace are calling me—
calling me
Back home to life.

Written by "English Beaver," age 14.
Your poem is very creditable, Lucy,
much better than many which are written
by grown folk and sent to the papers.

Junior Beavers' Letter Box.

Dear Puck and Beavers.—This is my
first letter to your charming Circle. I
live on a farm about two miles from Port
Dover. Lots of people come to Dover
to spend the summer, as it is a summer re-
sort. We have thirty-eight chickens
they are growing fine; they are tame.
My letter is getting long so I will close.

VIOLET SHAVER.
R. R. No. 2, Port Dover, Ont.
(Junior Third, Age 11.)

Dear Puck and Beavers.—This is my
first letter to your charming Circle. I
live on a farm of three hundred acres.
We go to school every day. Our teacher's
name is Miss Lake. We like her very
much. I have read a great many books,
such as Little Red Riding Hood, Silver
Locks, The Boy Scout in Northern Wilds,
or the Signal from the Hill, and the South
West Wind, Esquire. What do you
Beavers think about the war? Isn't it an

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STAR BRAND COTTON CLOTHES LINES
Clothes Line and Pulleys—Given for One NEW Subscription. Line is 50 feet long, finest quality braided white cotton, strong, durable and will not stain. Two single-wheel pulleys, 1 3/4 inches diameter, made of japanned iron throughout, go with the line. This is very unusual value in premiums.



Silver-Plated Knives and Forks—Half-dozen for One NEW Subscription. Here is one of the greatest premiums we have ever been able to offer. Six knives or six forks, with solid steel blades and handles, handsomely silver-plated and packed in a rack cardboard box. By getting six knives or six forks at a time, you can soon build up a good, serviceable silver-plated set of cutlery for your table. In ordering, be sure to state which you want sent, knives or forks. Two NEW subscriptions will bring you a half-dozen of each or a dozen knives or forks. Four NEW subscriptions will earn you the complete set of a dozen knives and a dozen forks.

China Tea Set of 21 pieces
For only Three NEW Subscriptions

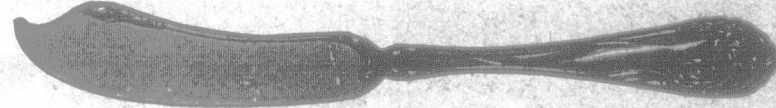
A very dainty design, beautifully decorated in a graceful floral pattern. Six bread and butter plates, six cups, six saucers, large bread or cake plate, cream jug and sugar bowl.

NOTE: We have only a few of these sets left, and cannot secure any more owing to the war. First comers will have first chance.



Measuring Tape in Case—Given for One NEW Subscription. Here is an article that will be handy on every farm. A first-class cotton measuring tape, 1/2-inch wide, 66 feet long, has folding brass handle for winding, brass trimmings, complete in a brass-bound case of asses' skin. Get one of these while they are to be had.

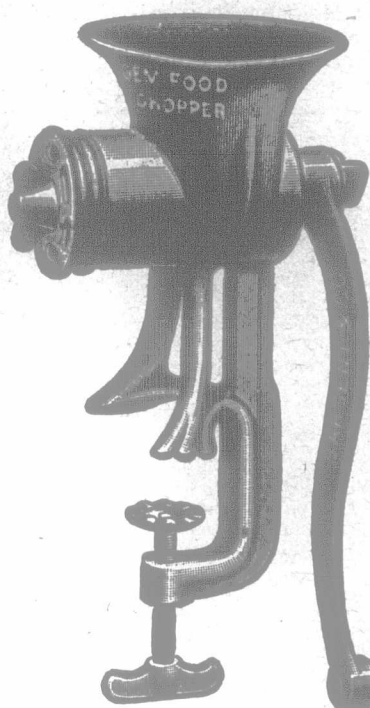
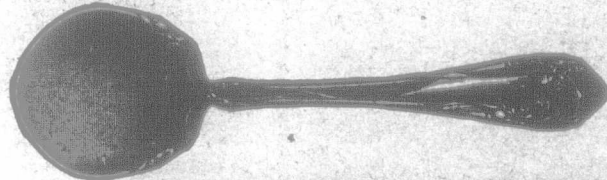
Silver-Plated Butter Knife—For One NEW Subscription. A beautiful, fancy knife, with embossed handle, finely silver-plated on pure white metal. Packed in a satin-lined case. A companion to the Pickle Fork described below. Start with one piece, and add others as you get new subscribers.



Silver-Plated Tea Spoons—Half-dozen for One NEW Subscription. Another splendid value. Silver-plated on pure white metal. Will wear white throughout and give great satisfaction. By sending in two NEW subscriptions, you secure the whole dozen, complete.



Silver-Plated Sugar Shell—For One NEW Subscription. A very attractive, fancy design in handsome silver-plate, highly polished. Each one packed in a satin-lined case.



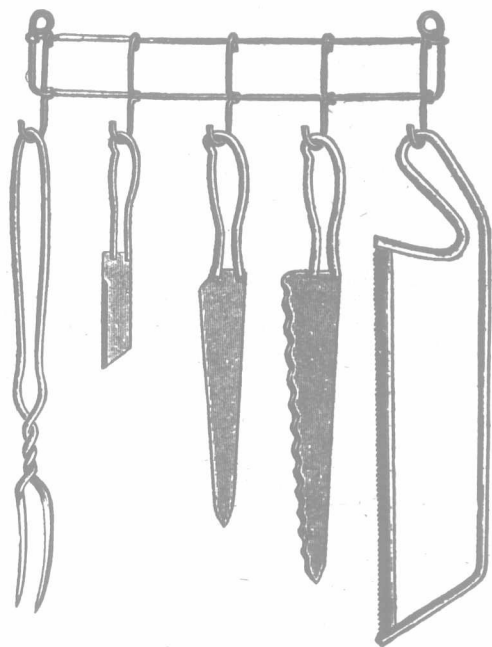
Gem Food Chopper—Given for Three NEW Subscriptions. Chops all kinds of meat, cooked or raw, at the rate of 2 1/2 lbs. a minute. Also minces bread, vegetables, fruit, nuts, etc. Splendid for utilizing left-over food. Has five cutting plates for coarse, medium, fine, and nut butter cutting. Made of iron heavily tinned. Packed in a box, with cooking helps and instructions. Every home should have one.

Bibles—For One NEW Subscription. One style, with Old and New Testaments, beautifully bound and clearly printed, with index to names of places, persons and subjects. Has 12 full-page maps. Size, when open, 7 x 10 inches; weight 23 ounces. Would cost \$1.00 to \$1.50 in any book store.

Another style, same quality, with centre reference and chromatic index, size when open, 9 x 13 inches.

Silver-Plated Pickle Fork—For One NEW Subscription. Has fancy embossed handle, and is beautifully silver-plated on pure white metal. A very pleasing design—the companion piece to the butter knife described above. Packed in a fancy, satin-lined case.

Sanitary Kitchen Set—For One NEW Subscription. Consists of all-metal Roasting Fork, Paring Knife, wavy-edge Bread Knife and Meat Saw, with metal rack to hold them all, made to hang on the wall. A useful article in any kitchen.



Genuine Hawkeye Wrench—Given for One NEW Subscription. Made of a solid piece of steel—gives you five handy tools in one; nut wrench, pipe wrench and three cutting dies for threading pipe or blank bolts; 5-16 inch, 3/8-inch and 1/2-inch.

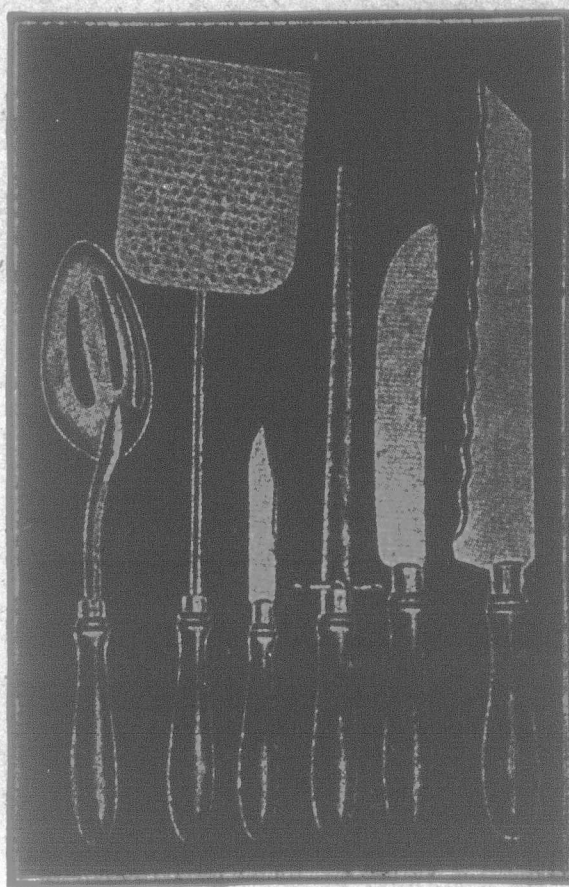
The market is very uncertain on this class of goods, so we would advise our subscribers to get one while they are still available.



Complete Kitchen Equipment

For One NEW Subscription

Pancake Turner, Basting Spoon, large Butcher Knife with Steel for sharpening, Paring Knife and wavy-edge Bread Knife; all of best steel and fitted with rubberoid finish handles of hardwood.



IMPORTANT!

On account of rapidly changing market on most of these goods, we cannot guarantee delivery indefinitely, although we will at all times do our best in the interests of subscribers.

When remitting, please write very plainly the names and addresses of the new subscribers, stating amount enclosed and whether express order or postal note, etc. Also be careful to state exactly the premium you want. The smaller articles are sent by mail. Larger ones by express, charges collect.

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Poultry of all kinds. Write for Price List. WALLER'S 702 SPADINA AVE. TORONTO

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

AT ONCE, BY YEAR OR MONTH, MARRIED man (preferred) accustomed to farm work and farm stock. Apply, stating wages. Percy Woods, Worthington P.O., Muskoka.

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

TENDERS WILL BE RECEIVED UP TO Tuesday, October 2nd, for the purchase of the Wyandotte Cheese and Butter Factory, frame dwelling, large brick factory, two acres of land. Abundance of spring water. Factory operated continuously for past five years; fully equipped for manufacture of both cheese and butter. Make estimated for 1917, 140,000 lbs. butter. Tenders will be opened at factory on Tuesday, Oct. 2nd, at 2.30 o'clock, when parties who tender are requested to be present. Lowest or any tender not necessarily accepted. Geo. F. Agur, R. R. No. 3, Moorefield, Ont.

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.

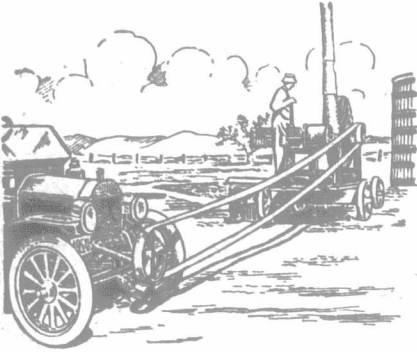
100-ACRE FARM FOR SALE OR EXCHANGE for farm property near Sarnia. Good buildings, stables, etc.; plenty of water; near London. Box 7, Farmer's Advocate, London, Ont.

200-ACRE FARM FOR SALE IN LOBO Township. This is one of the best farms in Middlesex, either for stock or grain, being Lot 9, Con. 5, 3 miles from Komoka, 1 1/2 miles from Lobo Village and 1 3/4 miles from cheese factory. London, 14 miles. On the farm is an 8-room dwelling house, new cattle house for 50 head of cattle, cement horse stable, 24x36; frame barn over, holds 20 tons of hay. Large grain barn, 36x56; all out-houses have cement floors. New cement block implement house, 24x30; also 3 other small houses. Fences are all Page wire. Lots of good water and fruit trees, and wood will last ten years. 150 acres in grass and 50 acres will be ploughed for crop this fall. Price \$13,000; 20 per cent. cash, balance in ten yearly instalments, interest 5%. Possession given at any time. Further information apply J. Lawrence, R. R. No. 4, Komoka, Ont.

awful thing? I have one brother in the war. CLINTON LAWRENCE, R. 3, Huronville, Ont.

Dear Puck and Beavers.—This is my first letter to your Circle, and I wish to see it in print. I have read a few books

Autopower Attachment For Ford Cars



Quickly converts your FORD into a gasoline power plant for operating grain separators, ensilage cutters, wood saws, grain grinders, hay presses, electric generators, water pump, dairy machinery and other farm machinery. Better than a portable or stationary gas engine for general use. Drive pulley mounted or detached in a few minutes. Send for descriptive circular.

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Cotton Seed Meal

This is the cheapest feed on the market to-day. Contains a larger percentage of protein than any other feed. Ask for our circular giving comparative feed values. Get our prices—they should interest every feeder.

We are still in a position to handle butter, eggs and poultry at best market prices. We have interesting prices on apples by the carload. United Farmers' Co-Operative Co., Ltd. 2 Francis Street, Toronto, Ontario

which are "Under the Old Roof," "Cinderella," "The Sleeping Beauty," and "Story of a Cat." I live on a farm quite near the schoolhouse, where we have preaching every Sunday. Well, as my letter is getting long I will close with a few riddles:

When is love deformed? Ans.—When it is all on one side.

In what month of the year are soldiers the most tired? Ans.—March, because there are 31 March days.

If a man saw his mother-in-law drowning, what letter would he exclaim? Ans.—Letter B (let her be).

MURRAY GRANT, Forester's Falls, Ont. (Age 8, Second Class.)

Smiles.

She Was All Right.—There lives in Providence a very matter-of-fact man whose wife is, and always has been, a bit sentimental and fond of trying to draw from husband those little endearments he has ever failed to furnish.

"I suppose," said she, on one occasion, "if you should meet some pretty girl you would cease to care for me."

"What nonsense you talk," said husband. "What do I care for youth or beauty? You suit me all right."—New York Times.

A Celestial Rebuke.—Charles B. Towns, the antidrug champion, spent some time in China several years ago with Samuel Merwin, the writer. In a Hongkong shop-window they noticed some Chinese house-coats of particularly striking designs and stepped in to purchase one. Mr. Towns asked Mr. Merwin to do the bargaining. "Wantum coatee," said Mr. Merwin to the sleepy-eyed Oriental who shuffled up with a grunt. He placed several of the coats before them.

"How muchee Melican monee?" inquired Mr. Merwin.

"It would aid me in transacting this sale," said the Chinaman, "if you would confine your language to your mother tongue. The coat is seven dollars."

Mr. Merwin took it.—Pittsburg Chronicle Telegraph.

Current Events.

Thanksgiving Day has been set for October 1.

Gen. Currie is calling for more men for the Canadian Army at the front.

Postmaster-General Blondin states that the people of Quebec are falling into line on conscription.

Number 4 Base Hospital, Toronto University Unit, sent to Salonika in 1915, has reached England.

The United States army now numbers one and three quarter millions of men.

On Sept. 5 British naval aircraft dropped many tons of bombs on German military establishments in Belgium, causing many fires.

In the German air-raid on London on Sept. 5, the ninth this summer, 11 were killed and 62 injured. On the same day a German submarine bombarded Scarborough, killing 3 and injuring 5.

The manufacture of whiskey in the United States ceased at 11 o'clock on the night of Sept. 8th. By this measure 100,000,000 bushels of grain annually will be saved for food.

Dr. Sun Yat Sen, who returned to China some time ago, and who promises to be the Kerensky of China, has been designated Commander-in-Chief of the army and navy of a new Military Government which has been proclaimed at Canton.

A Chinese army corps of 15,000 picked men is being mobilized for immediate departure for Europe. Among them are several companies of engineers commanded by Chinese graduates of American colleges.

During the week considerable fighting has taken place on every part of the war line—the British at Ypres, Canadians at Lens, French at Verdun, and the Italians in the Hermada district are doing magnificent work, all striving to prevent the Teutons from sending reinforcements to the attack on Russia. Since the evacuation of Riga, where the Germans made great use of suffocating gas, little has been reported from that quarter, but at time of going to press a combined sea and land attack on the part of the Germans seems to be under way, the objective, possibly, being the fortress of Kronstadt, the headquarters of the Russian Baltic fleet. Lively fighting has also been reported from Macedonia, while it is said that the Italians are leaving Southern Albania, possibly to help in their advance towards Trieste. It is thought that Greek troops may take their place.

From a Woman's Diary.

26th Dec., 1913.—Twelve years to-day since Jim and I were married; the twelve happiest years of my life. We are so content. Every day is so full of happiness, and every day makes our dear little home a little more our own. What a blessed thing the rent-purchase system is! It is lovely to feel that everything one does for one's dwelling-place is for oneself. I am glad I decided to make a yearly entry in my diary. I know I should never have succeeded in keeping a daily or a weekly record; but a yearly one is worth making a special effort for—so worth while because of the delight of reading about the dear old years.

This has been the loveliest year, full of deep happiness. Mollie is a great girl now, 11 yesterday, and such a darling. She and her daddy are absolutely devoted to each other; but to be sure there never was such a husband and father as Jim. We had a delightful fortnight at the seaside in January, and then Mally was with us for a month. What a blessing Jim likes Mally; some husbands hate their sisters-in-law. Jim gave me the sweetest new carpet for the sitting-room and a gold wristlet watch on my birthday. And yesterday his present was a typewriter, such a gem. I don't know how he knew I was longing for one. I was always so careful not to mention to him what it would mean to me to have one for my stories and sketches. But that is Jim out-and-out; he always knows by instinct what I am longing for. One day, last winter, he brought me a block of lilacs of the valley and six climbing roses—how a woman loves to be thought of! The little home is growing into a bower of loveliness; it would break my heart to lose it; but that will not happen now, for Jim is doing well, and we are never extravagant. What a blessing I can sew so well; I save a lot of money by making most of our clothes.

I have had five short stories and three sketches accepted this year, rather better than last year; but I don't gain much ground with my writing. I am working at a play now.

Thank God for a good husband and a sweet child, and for our health and happiness and home. I pray I may never come to taking things for granted.

26th Dec. 1914.—Thirteen years to-day since Jim and I were married. The past year has been eventful. In August, when war was declared, we little expected that at Christmas it would still be raging. It is a sad time. God help the women and children; aye, and the brave men who are going to fight for us. It is a very strange, sad Christmas in our little home, for Jim is at Broadmeadows, and Mollie and I are all alone. All alone, and so poor. But we are very, very proud of being so poor and very, very proud that our dear one is going away to fight for King and Country. It seems to me a great privilege that I can help at a great sacrifice; but, oh, dear God, let him come back to me; let him come back! He is so bright and brave, and so proud that I can let him go. He is so sure that he will come back. I don't let him see my tears; I keep a smiling face, and, though sometimes I think my heart must break, I would rather know thy lips for ever stopped up by death, thy lips for ever dumb, than that thou shouldst not answer to the call. Though my heart breaks. God help me to be brave and proud through it all, and help the other women, too.

Neither Jim nor I could see any other way than he must go. At first it did not seem necessary; but as time went on and the single men were not coming forward as they should, he said to me: "I want to go, Connie, but what about you and Mollie?" "I knew you wanted to go, dear, I have been waiting for you to tell me." I said, "I think you are right. Don't worry about us, darling; we shall be all right. I have gone over and over it all, and I am sure I can manage on my own. If anything happens to you I am young and strong and I can always sew for our living. It is a time for sacrifices; a time when all must help." So we talked it all over, and Jim enlisted. Of course I have had to cut down expenses, because, though we have been so comfortable, there has been nothing to spare. This has not troubled us, because we felt that in buying the little cottage we were saving good money. I am going to have a bold try to keep on paying for it, but it may have to go. Mollie and I are knitting socks for daddy, who comes out

Diary.

years to-day; the twelve... We are so... of happiness... dear little... n. What a... ase system... everything... -place is for... ed to make... ry. I know... d in keeping... but a yearly... effort for... the delight of... ars.

as often as he can. Occasionally we go to Broadmeadows; but he does not like us going there.

10th April, 1915.—I must write something in my book to-day. Mollie and I are just home after saying good-bye to Jim. He is to sail to-morrow. It has been such a wet, cold day, and the camp was in a dreadful state—mud, mud, mud. It was so cruel, for we didn't see our darling alone for one moment; we had to sit in the tent with the other men—such dears, all of them. Jim is a sergeant now. What a leveller war is! How we girls used to turn up our noses at non-coms! And, now, I am so proud of my sergeant; my dear, dear sergeant. We said good-bye to him there in the mud amongst a crowd of people. And oh, dear God, I may never see my man again.

20th June, 1915.—Mollie and I were nearly mad with joy to-day, because daddy's first letter came to us. Our dear one was well when he wrote. He was in Cairo, and expected to be at the front before we had his letter. He wrote in such good spirits, dear, brave soul; he is so sure he will come back to us; but if not, better to die than to have shirked."

1st July, 1915.—We saw by to-day's paper that Jim's company (reinforcements) has been under fire. Three wounded reported. It is so short a time since we said good-bye to our darling. I have written to him every day, and so has Mollie; but dear God, will he ever read our last letters?

3rd July, 1915.—That question is answered. He will never read those letters. To-day our kind old rector told me that Jim was killed in action on the 28th June. So lately we said good-bye to him, and now he is cold and still. God help me to be brave—brave about losing him, I mean. The hard work I shall have to do will be nothing; I shall be proud to work, because it will be for King and Country; aye, and for the shirkers, too; but they are not men, so they don't count.

He loved his life so, my man. He loved us so. But he loved honor and right and King and Country more. Thank God he answered the call, and... "God help me to be brave"—for I need all the help He can give me.—Ann Grey in The Australasian.

Donald McGregor's Bit.

The best laid schemes o' mice and men gang aft a-gley.—Burns.

BY AGNES HUNT.

Rachel Forbes hung the receiver in place and turned from the telephone, a shade of annoyance puckering her usually serene face.

"Don. McGregor is home and is down with typhoid. They want me to come over and help until they can get a girl, and Mr. McGregor is coming for me right away."

Mrs. Forbes shrugged her broad shoulders. "He might of had sense enough to a-stayed where he was and not come home a-bothering the old folks! He was above working on the farm when he was well, but I guess he finds it a good place when he's sick."

Rachel flushed in protest, then defended, "I suppose being sick was the very last thing he expected."

Then she went upstairs to make ready. Her face was flushed and her eyes very bright as she surveyed herself in the tiny mirror after hurriedly dressing. She looked at herself closely, critically, giving a fluff here, a pat there to her crowning beauty, her golden-brown hair; hair which glowed and shimmered and changed as the sunlight brought out its wonderful secrets.

It was parted in the centre and lay in loose waves on each side of her broad, white brow. Little curling wisps had escaped the merciless comb and rioted freely round her temples. No amount of coaxing could keep them in place; water only made them worse.

"He'll be too sick to remember or to care," she murmured, then making a face at her own reflection, "You're a silly girl, Rachel Forbes, and you know it."

"This is so good of you Rachel! Nancy is nearly wild about Donald, and the house is upside down as she was housecleaning," was Mr. McGregor's greeting.

A short drive brought them to their destination and soon Rachel found plenty to do. Skillful and orderly, she seemed to know by instinct how to bring order out of chaos. Things straightened out as if

TRAPPERS HUNTERS FISHERMEN CAMPERS BE PREPARED

HAVE FISH IN CAMP

A Gill Net will supply them, only 20 cents per yard, mounted with leads and floats ready for the water, give size of mesh, stretched measure desired.

Sportsmen—

We carry a stock of Marble's Sights, Hunting Knives, Axes and other specialties, also Acetylene Headlights, Camp Lamps, Lanterns, Collapsible Camp Stoves, Gendron's Shoeboxes and Boots, Tents, Pack-sacks, Sleeping Bags, Dunnage Bags, Compasses, Raincoats, Rods, Reels and Fishing Tackle of all kinds in fact, almost everything you require in the camp or trap line.

Fishermen—

We can supply you with Hoop, Brook, Trammel, Gill, Pound and Dip Nets, Seines, Lines and other Fishermen's Supplies at very close prices.

As the factories are busy turning out supplies for the Allies, many will be disappointed this year in securing their favorite rifles, ammunition and supplies, so order early before the other fellow has picked up the goods you want.

TRAPPERS—WE CARRY IN STOCK THE LARGEST ASSORTMENT OF ANIMAL TRAPS IN CANADA. No trappers' outfit is complete without a supply of—

Hallam's Animal Bait \$1.00 per bottle or Six Bottles for \$5.00, postpaid by us.
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as they will largely increase your catch of fur.

Write to-day for the new 1917-18 EDITION OF HALLAM'S TRAPPERS and SPORTSMEN'S SUPPLY CATALOGUE, 32 pages, illustrated, which we will gladly send you free on request. It will save you money. Address in full, using number.

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by magic under her capable hands, and at bed-time poor, worried Mrs. McGregor felt like calling down blessings upon her head. She voiced her sentiments in a more matter-of-fact way, however.

"The doctor wanted us to have a nurse, but I just couldn't abide a stranger round the house to wait on. I can help look after Donald myself, and you know a sight about the fever, too, since your pa had it a year ago. A girl will be bad enough to put up with a-wastin' and a-smashin' things. I don't see why you hadn't been my daughter 'stead of Abner Forbes. Land knows! he's got plenty of children without you."

"They can manage nicely without me while you need me."

"While I need you! Bless you, I'll need you till Don gets well, and I'll keep you too if I can."

It was late that night before sleep came to Rachel's tired eyes. She lived over again her school-days with Donald McGregor. There had been the keenest rivalry between them for first place on the honor roll. She led him in English, and tied with him in mathematics, but in science and the languages he was easily first. What a tease he had always been!

When Mrs. Forbes, a middle-aged spinster, came to rule over Abner Forbes' motherless flock of six children, she promptly set to work at Rachel's curls. With comb, brush and oil she worked a marvellous change and in spite of her childish rebellion her hair was tightly braided into one small pig-tail. Thus it had been kept even in high school days.

Don McGregor had laughed, laughed uproariously, dubbing her "little Chinaman," and she had cried herself half sick. She had hated Don McGregor, and burned in on her mind was still another incident.

Bella Rogers, the prettiest girl in school, incidentally the most extravagantly dressed, was proud of her luxuriant mass of dark hair which fell far below her waist. She was hopelessly dull at school, and was always tagging at Rachel's heels for help.

One day at recess in the school-room she exclaimed petulantly, "My, Rachel, what a little wisp of hair you have! I could easily spare you enough to cover your head decently."

Rachel was cross and ready with a sharp retort. "Some people have hair, and some have brains. I'd prefer brains any day." She had thought they were alone in the room, and was surprised and angry when Don McGregor burst out laughing. Coming up the aisle he made her a sweeping bow.

"Miss Brains, permit me to offer a suggestion. Get a wig. The gray matter won't be harmed by a little extra pressure." Then he had gone out still laughing and at every opportunity Rachel was teased most unmercifully. She was humiliated, and her dislike for Don increased.

The offending hair was taken in hand, with the result that nature had intended, though it cost the girl a sharp conflict with the "Powers" in the Forbes' household.

Rachel had graduated with Don McGregor, but she had taken a school while he had entered the university. Now he was Science Master in the Agricultural College at ———. She had been called home by her father's illness a year



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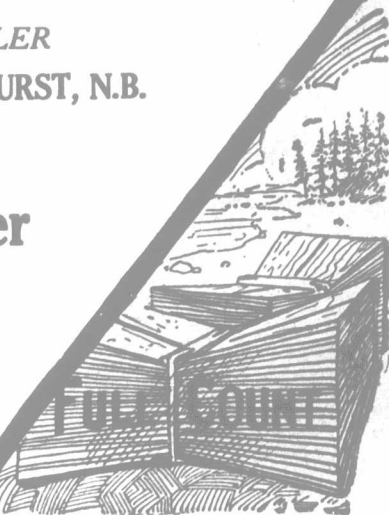
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has the reputation of being the cleanest,
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BLACK, GREEN OR MIXED. SEALED PACKETS ONLY.



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gives us a wholesome, anti-septic, refreshing confection to take the place of the cave man's pebble.

We help teeth, breath, appetite, digestion and deliciously soothe mouth and throat with this welcome sweetmeat.

Chew it after every meal.

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HISCOTT DERMATOLOGICAL INSTITUTE, LIMITED
 61A College St. Established 1892 TORONTO

before. The family was large and her help sorely needed, so she had simply stayed on.

Donald McGregor was a very sick man. He seemed to have lost his grip on life, to be quite indifferent to everything about him. Oftentimes he raved in delirium, oftentimes he lay as in a stupor. Nobly the two women battled with death and in the end won out.

It was Rachel who took his temperature, who bathed his burning face and hands, who held the spoonful of nourishment to his lips, who gave his medicine, who arranged his pillows so deftly. Rachel did all these things while no strangers were admitted. The night vigils were kept by the three in turn—father, mother and Rachel.

Many times it seemed that he must slip away from them in spite of the doctor's skill and their careful nursing. Finally, however, his naturally fine constitution asserted itself, the crisis was passed safely, and bit by bit strength returned to the wasted, emaciated body. In those dark days Rachel Forbes read the mother's pride in her son's cleverness, the typical inborn pride of knowledge possessed by every true Scots woman. She saw the fear in both old faces that their only child would be taken away from them—fear that made their faces gray and drawn, their hair whiter. Don's helplessness appealed to the womanliness within her. Her animosity vanished.

Convalescence came at last, and with it a rush of sympathetic neighbors. Then the sick man was left to his mother and his callers while Rachel planned and managed, keeping the household machinery running smoothly. It was she who prepared the sick man's meals and served them so daintily. Daily the snowy napkin on the server, the delicate china and the accompanying spring flowers or fruit cheered the patient and did him almost as much good as the food it conveyed him.

One day a bunch of great purple pansies adorned the spotless tray. Don seized them half hungrily, forgetful of the meal itself, caressing their velvety petals, inhaling their sweetness. Bella Rogers, a quiet beautiful woman now, was in the room at the moment.

"Pansies for thoughts, aren't they, Bella?" he asked smiling.

"The language of flowers is a dead language to me," she replied with a laugh. "Better ask Rachel."

He glanced at her, a frown puckering his brow, and just then Rachel entered with a letter.

After chatting a few moments Bella took her leave, and Rachel reached for the server, but Donald detained her.

"I've news here. Won't you wait and share it with me? The college is still holding the vacant chair for me until I am able to go back."

"How nice of them! You must appreciate that."

"I do, but I hardly think I shall go back. Why, Rachel, I never knew a fellow could grow so weak. I've got to learn to walk all over again."

"You mustn't get discouraged. You'll get strong fast enough now. All you need is plenty of good food and fresh air."

"What could we ever have done without you?" he asked gravely.

"There were plenty other Rachels," the girl answered gaily, quite ignoring the serious vein. "Besides, you'll see how, for I have to go home to-morrow."

"I'll have a relapse."

"Nonsense," she laughed. Then seriously, "I want to be with Jim as much as I can before he leaves."

"Leaves?"

"Yes, for overseas, you know."

"So Jim's doing his bit for the Empire! Good old Jim! He is to marry Bella they tell me!"

"Yes, she's to be a war-time bride. Jim would have it so. She was left all alone when her father died, you know."

"Well, well, strange things happen! No wonder Jim lost his heart for she is a very beautiful girl."

"Just as good as she looks, too," and Rachel smiled.

After Rachel Forbes had gone Donald McGregor grew very quiet, morose and irritable. The house was solemn as a funeral, the new girl a nuisance, and he so beastly weak! Rachel might have stayed a few days longer, might run in once in a while anyway!

But Rachel had grown strangely wise and strangely shy. Her old animosity had vanished. In its stead was a sympathetic interest—nothing more.

Donald McGregor had nothing in common with his neighbors. His life and work was far removed from them and their pursuits.

She was absorbed in her work, but never too deeply to listen to stray bits of gossip. A strange thing had happened. Donald McGregor had signified his intention of remaining at home. A fine new car had come from the city, and soon he was flitting about among the farmers of the neighborhood. He was stirring them up to aim at greater production, pointing out the shortage of food caused by the great war, and impressing on them the certainty of world-wide famine should the year's crops fall short.

A new enthusiasm had seized the community. Some one was constantly asking his advice, carrying him samples of soil to analyze, or weeds to identify. He was consulted regarding the different varieties of grain, the values of certain commercial fertilizers. He was here, there, and everywhere, all interest, all attention to the needs of his neighbors.

It was all done so simply, he made himself so much one of themselves that no one could be offended. They took his words seriously, and from early dawn until sundown the countryside hummed with activity. The crops on the McGregor farm were going in as he directed and everyone waited results.

Then in the lull after spring's work came a bit of electrifying news. A pretty bungalow was being erected beyond the McGregor orchard, but though Mr. McGregor and his wife were questioned artfully by the more inquisitive, they simply smiled and kept the secret. Donald McGregor was going to marry, that was sure. But who?

Several times he had taken Rachel out in his new car but he had shown other young ladies the same attention. He must have left a sweetheart back yonder in the city was the verdict of all. When one afternoon he again called at the Forbes' home for Rachel, Mrs. Forbes uttered a whispered protest.

"I wouldn't play second fiddle if I were you, Rachel. I'd stand on my dignity."

"Nonsense," laughed the girl, though her face flamed red. "He's only a neighbor and thinks nothing of taking a girl out. What do I care who he intends marrying!"

But in her secret heart she knew she did care. Resentment against this unknown girl who had won Donald McGregor's heart filled her. She was quieter that day than usual, but when her companion produced a camera on reaching the pretty lake shore and began initiating her in the mysteries of snapshots and time-exposures, showing her how to group objects properly and get the correct focus, she forgot everything save her interest.

"I'll develop these myself, but the next bunch I'll teach you to do," he promised.

This was made the excuse for many visits to the Forbes' home. The camera was left with Rachel.

The oldest girl in a large family holds no enviable position, and so Rachel found it. The hardest of the work fell to her and her pleasures were few. As Donald had foreseen, the camera was a source of keen pleasure to her. He, himself, proved a delightful companion, opening her eyes daily to new beauties in nature. Life became good to Rachel Forbes.

Then Jim, her oldest and dearest brother, left with his Battalion for a brief period of training at Niagara. The good-bye was only for a time, but with all her courage Rachel had broken down under it. Tired by her ceaseless labor, worn by the stress of parting, she threw herself half-exhausted into the hammock hung in a shady corner of the old orchard.

Donald McGregor, coming across the fields, glimpsed the flutter of blue chambray and, man-like, went to investigate and found her there. One arm above her head, the other drooping at her side, she lay, traces of tears still on her lashes and cheeks.

Donald caught his breath. How pretty she was asleep! How childishly sweet! How alluring the stray tendrils of hair curling about her face! What a wilful chin with its deep dimple! What a sweetly pathetic mouth!—And then Donald McGregor was tempted and Adam-like fell. He stooped and im-

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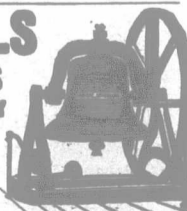
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petuously kissed the sweet lips. Guiltily he started back as the girl stirred, opened her eyes, and seeing him sat up coloring prettily. Her eyes for a moment questioned his, then fell.

Don's pulses were throbbing furiously. Like a draught of strong wine was that stolen kiss. The red crept to his brow as he stammered, "I was just going to the house, but spied your dress and so came here."

"I must have been asleep."
"You were," nodding, "sound."
Then Rachel gave the lie to her words. Burying her face in her hands she burst into a storm of tears.

Donald in his awkward way strove to comfort her, but she sobbed out, "I never thought it of you, Don McGregor, and you soon to be married too! What would your sweetheart think of you now!"

"I couldn't help myself," he pleaded. "Listen Rachel, I want to talk about her if you will only listen. I've never asked her to marry me yet—in fact I'm afraid she'll refuse."

Two very surprised eyes stared at him. "You see she's so pretty that I just am afraid to ask her to come and share life with me on the farm."

"Huh!" and Rachel tossed her head. "If she loves you she'll be willing to share any life with you."

"Is it that way with a girl, Rachel?"

"It is if she's worth having."
"Say, would you mind looking at her picture and telling me what you think of her?"

"Oh Don, I'd rather not. Indeed, indeed I would," and Rachel's face was sorely troubled.

Don was quietly unfastening a locket from his watch chain. He dropped it into her hand but she made no move to open it. Her face showed the struggle within her. It went first red, then very, very white. A mist was over her eyes. She hated the girl whose face was within—hated her! She had robbed her of everything worth having.

"Open it Rachel," Don's voice was almost like a caress.

Dumbly, as pride came to her rescue, she pressed the spring and the locket lay flat in her hand. There smiling up at her she saw—her own pictured face. For a moment she stared not understanding, then with a cry her hands flew to cover her confused but happy face.

A few moments later: "I can't fight dear, but I can surely do my 'bit' by helping produce for those who can. I've spent years in teaching theories, now we'll put them into practice on the old farm, you and I."

The sun which had been sinking westward, shone through an open space among the branches and touched Rachel's brown head, transforming it gloriously.

Don laughed softly.
"There's a halo of glory about your head, sweetheart. I've surely won an angel."

"Hair versus brains! Do you remember how mean you were Don?"

"Yes, but I'll do hard labor for life to make amends dear, only I'll be wiser than Jacob of old, and make sure of my Rachel first."

A publication which should prove of considerable interest to the prospective settler to Western Canada has just been issued by the Natural Resources Intelligence Branch of the Department of the Interior. It is known as the "Homestead" Map and shows graphically the exact location of each quarter-section which is still available for entry under the free Government offer of 160 acres.

The Map has been published in four separate sheets, one each for Manitoba, Saskatchewan, Northern and Southern Alberta, respectively, and is available for free distribution in individual sheets or in complete sets.

The Homestead Map is one of a number of maps, reports and bulletins with respect to settlement in Western Canada that are available for free distribution upon application to the Natural Resources Intelligence Branch. In view of the arrangement with respect to farm labor in Western Canada counting as residence on a homestead and thereby reducing the period within which residence and cultivation duties must be performed prior to applying for a title to the land, also on account of the impetus which has been given to Agriculture by the present world shortage of foodstuffs, the demand for information on the subject of homesteading is showing a marked increase.

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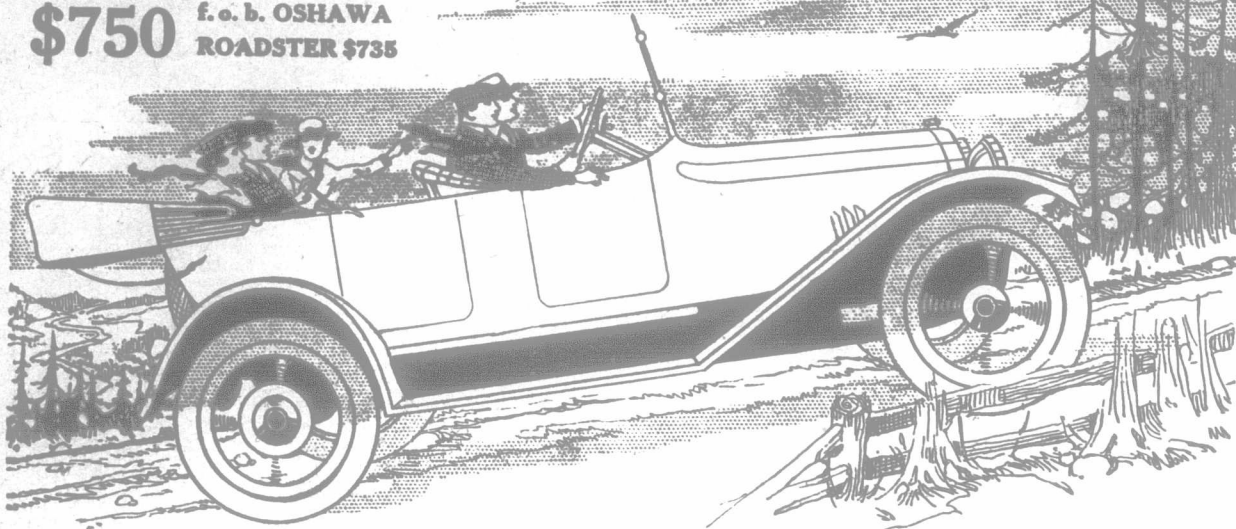
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Miscellaneous.

Blue Joint.

The root enclosed I found in a piece of new land which I thought clear of weeds. The top resembles twitch grass, but not the root. Tell me through your paper whether it is bad or not. E. B.

Ans.—The grass sent belongs to the same genus as the Couch or Twitch grass. It appears to be Blue Joint or Western Couch (*Agropyrum glaucum*). It has not the running rootstocks like Couch, and while sometimes troublesome in new breaking yields to thorough cultivation.

Cause and Effect.

EDITOR "THE FARMER'S ADVOCATE":

As farmers we reap as we sow. If we sow clean, high-grade seed on well-prepared ground, we reap a clean, abundant harvest. Sow weed-seed or inferior grain and the harvest is poor. The conditions must be fulfilled. The best can only come from good seed and good work.

"Whatsoever a man soweth, that shall he also reap." "Be not deceived": the law is universal. There is not one law in the moral or spiritual world, and another and different law in the natural world. Everything proceeds according to the universal law of cause and effect. There is no such thing as luck or chance in any proper sense of the terms. "Nothing walks with aimless feet". Nothing happens without a cause whether the cause be known or unknown to us; and no effect can arise without an adequate cause, that is to say, a cause equal to or sufficient to produce the effect. For example: scientists tell us that about 300 pounds of water are required during the season of growth and ripening, to produce one pound of dry plant material, as hay, grain, etc. Now, it is plain that in order to produce this plant-matter, the water must be supplied by rain-fall, by irrigation, tillage-conservation of moisture or other means, as an essential element or cause.

Certain elements are essential as plant-food, nitrogen, phosphorus, potash, etc. If the soil is deficient in one or more of these, the deficiency should be supplied by barnyard manure, the clover crop or commercial fertilizer. Land that is soggy or sour might be improved by the application of lime. Thorough pulverizing of the soil is always good husbandry. The soil-particles should be fine and in fairly close contact, in order to be available as plant-food and to avoid too great air-spaces, as incident to rough, lumpy ground. Another essential to good crop production is thorough drainage—natural or artificial. These are not matters of luck and chance, or of the caprice of mythical deities. They are matters of cause and effect, attested by common-sense and common experience. Science is commonsense and experiment organized and applied, and is valuable only so far as it finds law in nature and can understand and obey that law. It is worth while to apply the best methods to the wheat field this fall. Let us, as far as possible, ensure the success of the next wheat crop by doing our work faithfully and well. If the land is properly prepared and well-seeded with the best seed, in time for good autumn growth, there is really not much risk, though the cost of cropping is greater this year.

Kent Co., Ont. W. J. WAX

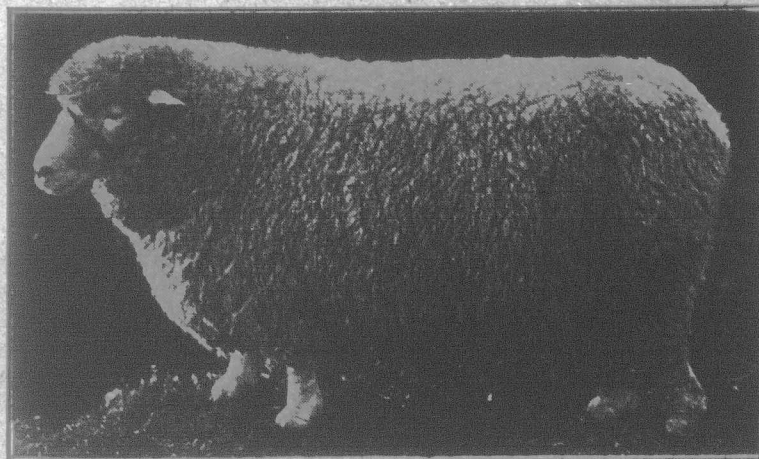
Uncle Ezra.—"So ye just got back from New York! What's the difference between the city and the country?"
Uncle Eben.—"Wal, in the country you go to bed feeling all in and get up feeling fine, and in the city you go to bed feeling fine and get up feeling all in."

First Cow.—"It is going to be an awful summer for us."
Second Cow.—"Yes, it will probably be treason to kick the farm help."

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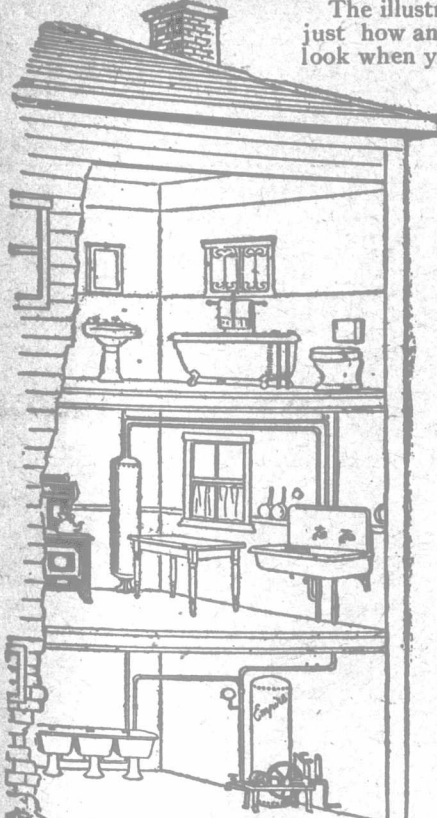
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Questions and Answers. Miscellaneous.

Curing Tobacco.

Would you kindly give me directions how to cure tobacco for pipe use? M. B.

Ans.—See answer to P. J. H. in this issue.

Sweet Clover.

Will you please inform me through your paper when to cut sweet clover? Should I allow it to get dead ripe, or would it shell and waste? Should it be threshed with a clover mill or would a grain machine do? I intend cutting it with the binder and allowing it to run off loose, unless you suggest a better plan. R. W. G.

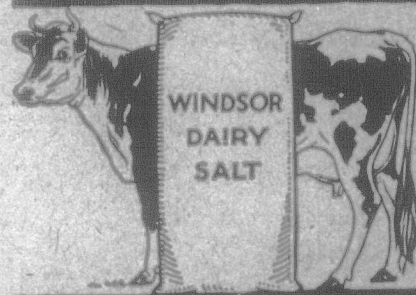
Ans.—See answer to J. A. in this issue.

Gossip.

At the National Dairy show to be held in Columbus, Ohio, October 18 to 27, the dairy division of the United States department of Agriculture will, through the medium of demonstrations on production and manufacture, show how to-day's wastes can be turned into profits. The state agricultural colleges will demonstrate the part they are taking in the world's food campaign. Their labors will be largely devoted to showing how to increase production and cheapen it at the same time.

Herbert Hoover has promised to be at the mass meeting of the industry which is to be held in Columbus, October 22nd, and will deliver a word of encouragement to producers of milk and manufacturers of its products. He will tell them the part that the dairy industry must play in serving the people of the world with food, and how we must be prepared to rebuild the cattle industry in the war-wasted territories of stricken Europe.

He.—"My ancestors came over in the Mayflower."
She.—"It's lucky they did; the immigration laws are a little stricter now."



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English Agricultural Subjects.

EDITOR "THE FARMER'S ADVOCATE":
The Corn Production Bill passed its Third Reading in the House of Commons on August 7th, and is, as I write, being considered by the House of Lords.

In the Commons Mr. Prothero, the Minister of Agriculture, again made an interesting speech in justification of the principles of the bill, which he has conducted through its various stages with great good temper, patience, and forbearance. It guarantees, as he said, the corn-growing farmers against a repetition of the slump which ruined thousands of them thirty years ago. It secures the agricultural laborer an irreducible minimum wage and a potent voice in the control of his conditions of life. It establishes the new principle that in time of crisis the whole community is vitally interested in the proper cultivation of the land. As to the paltry argument that, in promoting the interests of British agriculture, the Government were sowing disunion between town and country, Mr. Prothero was content to say that if the bill worked in the national interest, townsmen also stood to benefit by it. Here is a résumé of what has already been done:

In the present year the Government have added 1,000,000 acres to the cultivation of corn and potatoes.

600,000 home-grown quarters of wheat release enough tonnage to carry a third of the raw cotton imported from America.

We have, as a matter of fact, increased our carrying capacity to the extent of the whole of last year's American supply of cotton, and this means an opportunity of earning several million pounds' worth of wages for agricultural labor.

The Corn Production Bill guarantees wheat prices until 1921, as my previous letters have explained.

The Third Reading was carried by 108 to 14, and Mr. Prothero earned the warmest congratulations on the happy result of his well-directed labors.

Mr. Prothero has made a startling statement as to the slaughter of immature cattle, a situation forced on us by the War.

For three years, says Mr. Prothero, we have maintained our flocks and herds at an even higher level than in the days of peace. We alone among the belligerents have been able to do this. Now the time has come when for a few months at least we, too, are compelled to make encroachments on our home supplies, and for the first time to feed a portion of our Army on home-grown meat. This action is not taken by choice, but is forced upon us by the exigencies of war.

What we want for the Army are cattle that are comparable to those slaughtered in the Argentine and other countries which supply our imports of meat, i. e., cattle that have not reached the degree of finish which in the past has reflected such credit on British graziers, and has supplied our public with the finest meat in the world. And this for two reasons.

In the first place, prime beef is no longer economical for the country at large. The last stages of fattening are the most expensive in feed. I am aware that to the individual this last stage has been the most profitable, because that alone has put the finish on the animal and given it the quality that secured a good price per stone for the whole animal. But the situation has changed even for the individual. As soon as the maximum price is fixed for beef (and broad national considerations compel this imposition of a fixed price) then the farmer cannot realize the extra return from prime quality, and he must begin to lose money, as soon as the animal ceases to make those increases in weight for the food consumed which are attained in the early stages of fattening. The nation can no longer afford prime beef, and it certainly will not pay the farmer to make prime beef at second-quality prices.

Secondly, I must warn you again of the increased and increasing shortage of feeding stuffs. However little we like it, we must accept the fact that the needs of the war and the work of the enemy submarine have so reduced the tonnage available that none can be spared for cattle food. It is not a question of agricultural policy, nor of the wishes of the farmer to carry on his business in the way he knows is best for it; it is the stern stress of the war, to which every

**No More
Sore
Shoulders**



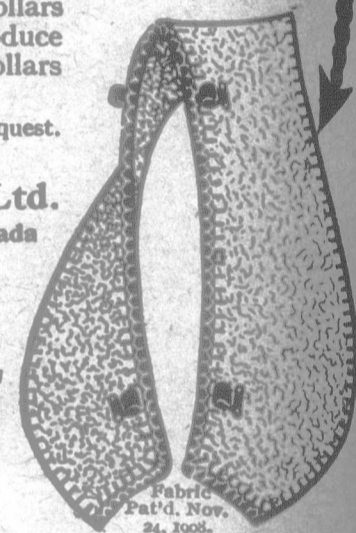
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arrived at our barns late in November. A number of them since have been prominent winners at both Guelph and Ottawa. But we have others (both stallions and mares) that were never out of the majority of the stallions weigh around the ton, and better quality and breeding were never in the stables. Come and see them. We like to show them. **SMITH & RICHARDSON, COLUMBUS, ONT.**

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

BURNFOOT STOCK FARM

Breeders of high-record, dual-purpose Shorthorns with splendid conformation for beef. Visitors welcome.
S. A. MOORE, Prop. Farm one mile north of Caledonia CALEDONIA, ONT.

CREEKSIDE FARM SHORTHORNS

We have for sale, at present, a number of young things by our former herd sire, Clan Alpine (the Claret-bred bull, by Proud Monarch). We like them—so will you. If it's young bulls or a few females you need, we would welcome a visit from you. Write or phone. Visitors met by appointment.
Geo. Ferguson, Elora Station, C. P. R., G. T. R. Salem, Ontario

IMPORTED SHORTHORN BULLS

We have several newly-imported bulls of serviceable age. Cruickshank, Marr and Dutchie breeds, as well as a number of choice, home-bred young steers, got by our noted herd sire, Proud Monarch, by Royal Blood. Get our prices before buying elsewhere. **RICHARDSON BROS., Columbus, Ont.**

Pleasant Valley Farms

Offers for sale, (Imp.) Loyal Scot, conceded to be one of the best stock bulls in the country. Also good young bulls and females with the best of individual merit and breeding. Inspection invited.
Geo. Amos & Sons, Farm 11 miles east of Guelph, C.P.R. Moffat, Ontario

WILLOWBANK STOCK FARM SHORTHORN HERD

Established 1855; This large and old-established herd has at the head the two great bulls, Imported Roan Chief—60865—, a Butterfly; and the prizewinning bull, Browndale—80112—a Mina. An extra good lot of young stock to offer of either sex. Splendid condition. Good families of both milking strain and beef.
James Douglas Caledonia, Ontario

1854 MAPLE LODGE STOCK FARM 1917

SHORTHORNS AND LEICESTERS
Three Shearling rams, some lambs and ewes for sale.
MISS CHARLOTTE SMITH R. R. 1, CLANDEBOYE, ONT.

Shorthorn Cattle and Lincoln Sheep—Young cows and heifers of the best Scotch families. Sire in service, Sittyton's Selection—86508—. The winning pen of long-wool lambs, all breeds competing at 1916 Guelph Winter Fair, came from this flock. Imported and home-bred rams and ewes for sale. New importation home from quarantine in September. **R. S. ROBSON & SON, Denfield, Ont.**

**Harab-Davies
Fertilizers**

Write for booklet.
THE ONTARIO FERTILIZERS, LTD.
WEST TORONTO

ROOFING 85¢
AT FACTORY PRICES
Samples Free, including Heavy Crumbs. Also Catalogue of Builders' Bargains such as—
Pine Doors \$1.50 Glass Sash 45¢
Lath Sets 45¢ Pure Paint 60¢
HALL-DAY COMPANY, 415 HAMILTON
FACTORY & DISTRIBUTORS—CANADA

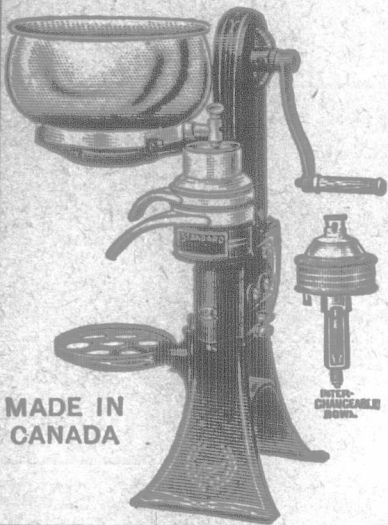
How the Standard Gets Practically All the Cream

At the point where the good features of other machines leave off is the point where the Standard is just beginning to give you extra close-skimming, extra profit-making advantages that open wide the eyes of everyone who cares to make comparisons. The Standard's bowl, the vital part of any separator, is unlike that of any other machine. It gets more butter-fat by far than others, and that is what counts! The

Standard

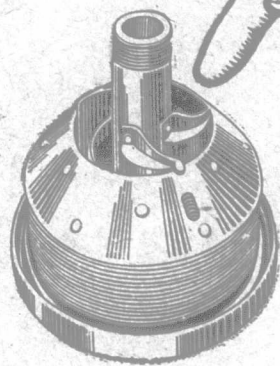
gets all but one-tenth pound of butter-fat from every 1,000 pounds of milk skimmed, while other machines lose a whole pound! Compare this record with that of your own or any other machine. And remember that this all-important result is proven over and over again by independent tests made at Government Dairy Schools. Here is the way the Standard outskims other machines:

First—The Standard has greatly improved the disc system. The Standard's discs are different in both size and shape, and their advantages were proven by a two-year test before being adopted.



MADE IN CANADA

Second—The Standard's exclusive curved wing centre-piece ensures perfect distribution and prevents clogging of the discs with cream. See in the



Do You See Those Wings ?

picture the wide-open space between the tubular shaft and the inside edges of the discs. Half of the skimming is done in that space, thus freeing the discs for perfect skimming.

The curve of the wings increases the distance over which the milk travels and the skimming force is multiplied many times. The curved wings distribute the milk in thin sheets equally to every disc without clogging. There is no whipping as in the case with straight wings. That is why you can get firmer, better butter when you have the Standard to give you unbroken globules of butter-fat. And you get more of it—more profits—because the Standard outskims all other machines.

Write for booklet describing the Standard's even-spaced discs, the easy-to-clean and easy-to-turn advantages, the exclusive self-oiling system, the instantaneous clutch, the exclusive interchangeable capacity feature—many special advantages that put the Standard absolutely in a class by itself.

The Renfrew Machinery Co., Limited

Head Office and Works, RENFREW, ONT.

Eastern Branch, Sussex, N.B.

AGENCIES ALMOST EVERYWHERE IN CANADA

A Sample Pair sent to Your Dealer on request

The Best is none too good for the Farmer



BOB LONG
UNION MADE
GLOVES & OVERALLS

Known from Coast to Coast
R.G. LONG & CO. LIMITED
TORONTO ONTARIO

BLACK LEG LOSSES SURELY PREVENTED BY CUTTER'S BLACKLEG PILLS

Low priced, fresh, reliable, preferred by western stockmen, because they protect where other vaccines fail.
Write for booklet and testimonials.
10-dose pkg. Blackleg Pills, \$1.00
50-dose pkg. Blackleg Pills, \$4.00
Use any injector, but Cutter's simplest and strongest.
The superiority of Cutter products is due to over 15 years of specializing in VACCINES AND SERUMS ONLY. INSIST ON CUTTER'S. If unobtainable, order direct.
The Cutter Laboratory, Berkeley, Cal., or Chicago, Ill.

When writing please mention Advocate

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.
R. R. NO. 3, STRATFORD, ONTARIO.
P. SMITH, PROPRIETOR.

ROYCROFT FARM HOLSTEIN-FRIESIANS

The home of Het Loo Pietertje, the world's record junior two-year-old, and Mildred Pietertje Abbekerk, the world's milk record four-year-old. Records were both made on the farm this year and we have young bulls of the same breeding. Get your next herd sire from a herd that is best by test. Regarding individuality—pay "Roycroft" a visit and see for yourself. Take Yonge Street cars from North Toronto.
W. L. SHAW, Newmarket, 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.

EVERGREEN STOCK FARM REGISTERED HOLSTEINS

Just now we are offering a very choice young bull, five months old, whose five nearest dams average over 30 lbs. of butter in seven days and 100 lbs. milk in one day. Also another bull calf whose dam was the top-price cow in the Woodstock Sale. Bell phone.
A. E. HULET, NORWICH, ONT.

CLOVERLEA HOLSTEIN-FRIESIANS

Stock for sale, all ages, from choice, high-testing dams—75 head to choose from. Our special offering is a few choice heifers, due to freshen in September or October. Personal inspection is invited.
GRIESBACH BROS. L.-D. Phone COLLINGWOOD, ONT.

English Farming News.

EDITOR "THE FARMER'S ADVOCATE":

The Corn Production Bill by which British farmers are guaranteed prices for their cereals grown for many years to come, has passed the Houses of Commons and Lords, and on August 17th became law, after the Lords had chopped it about a little bit. An amendment brought into the Bill later on and carried, had the effect of grading prices on a basis of the acreage grown instead of, as was originally promised, on the quantities of wheat and oats sold by the producer. The British Board of Agriculture has issued a brief explanation of the working of the acreage rule. The London Gazette prices (official) of wheat and oats harvested in any year, it is explained, are determined for the seven months, September to March inclusive. In any season in which the Gazette price thus determined falls below the minimum price guaranteed by the Bill, the grower is to be paid four times the difference between the Gazette price and the guaranteed price in respect of each acre of wheat he has grown, and five times the difference between the Gazette price in respect of each acre of oats.

Take the harvest of 1919 as an example. The guaranteed prices will be: for wheat, 55s. per qr., and for oats, 32s. per qr. Suppose the Gazette prices are for wheat, 50s., and for oats, 31s., the grower having sold his corn in the open market for the best price he can get, (or otherwise disposed of it), will be entitled, whatever that price may have been, to receive in addition from the Government (55s. less 50s. = 5s.) x 4, or 20s. on each acre of wheat he has grown; and (32s. less 31s. = 1s.) x 5, or 5s. on each acre of oats he has grown.

Thus, if a farmer has grown 75 quarters of wheat on 25 acres and sells it at 49s. per quarter, also 180 quarters of oats on 30 acres, which he sells at 32s. per quarter, his receipts would be:

From Sales.	
Wheat, 75q. at 49s.....	£183 15s.
Oats, 180q. at 32s.....	288
From Government	
Wheat, 25 x 4 q. x 5s.....	£25
Oats, 30 x 5 x 1s.....	7 10s.

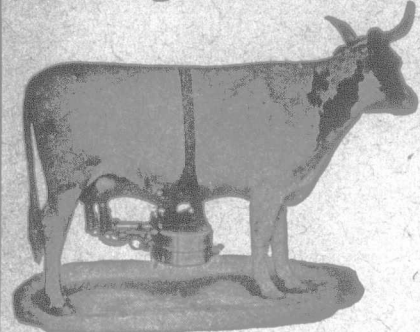
This illustration should make it clear that the amount any particular grower receives from the Government will not be affected by (1) the price which he receives for such corn as he sells; (2) the manner in which he disposes of his corn, i. e. whether he sells or feeds it.

The Premier, Lloyd-George, on August 16, spoke of our 1917 harvest being the most momentous in the history of the world. We have a million acres more under cultivation in 1917 than we had in 1916, but the Minister of Agriculture is working on a program under which he will see that some 4,500,000 more acres are under cereals in 1918 than there were in 1915. Then, agriculturally speaking Britain was in, or at, its lowest depths, or ebb, so far as producing food-stuffs for herself was concerned—and the Germans knew it too. If for 1918 some 2,000,000 new acres of wheat can be sown, 1,000,000 new acres of barley, and 1,500,000 acres of oats, Mr. Prothero, the Minister of Agriculture, reckons we shall raise an additional 19,500,000 quarters of grain, making our total production approximately 55,000,000 qrs. That quantity, deducting 20 per cent. of the wheat and barley, and 40 per cent. of the oats for seed and live stock feeding, etc., will, if milled into flour, supply the necessary 3,300,000,000 four-pound loaves which the people of England, Scotland, Ireland and Wales annually consume. We are going to put back British agriculture to where it was in the days it flourished. We are going to turn the agricultural clock back to the "seventies". We have got a lot of willing labor being put into the land, retired folk, old soldiers, children, and some 80,000 women are now permanently engaged on the land, replacing some 32,000 men taken from the industry or war. We are expecting 8,000 tractors to be placed at the services of the farmers for springtime. All kinds of machines are being "tried out" over here. Some come from the other side of the Atlantic and they are bound to reap the advantage because all our motor makers are engaged on making something more important than runabout cars and the like. Lloyd-George's declaration that "we can't

ing News.

Bill by which... prices for... many years to... of Commons... 17th became... had chopped it... An amendment... r on and carried... ng prices on a... own instead of... mised, on the... oats sold by the... Board of Agri-... rief explanation... reage rule. The... (official) of wheat... any year, it is... d for the seven... March inclusive... the Gazette price... ow the minimum... Bill, the grower... s the difference... e and the guar... of each acre of... d five times the... Gazette price in... ts.

OMEGA Milking Machines



Care of Milking Machines

Excerpts from an article in the "Implement News": "One of the most important needs of users of milking machines is that of quick cleaning. It should be done properly at the proper time. The machines should never be allowed to stand until the casein hardens on the rubber tubes or cups."

Omega has NO RUBBER TUBES

Short, transparent celluloid tubes take the place of long rubber ones. They do not decay or harbor germs, and are easily and quickly cleaned. This is an exclusive OMEGA feature; another is that the pail and milking parts are suspended from the cow's back, and the test-cups cannot fall to the floor and suck up filth.

WRITE TO-DAY

for illustrated booklet describing the many exclusive features of the OMEGA.

C. RICHARDSON & CO. St. Mary's, Ontario

CREAM

We are open to buy cream both for churning and table use.

ASK ANY SHIPPER

about our service and prompt returns.

Ask for Prices.

The figures of yesterday may be TOO LOW for to-morrow. We furnish cans.

The Toronto Creamery Co., Limited Church Street, Toronto

Cream Wanted

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

Ontario Creameries, Limited London, Ontario

REGISTERED HOLSTEINS Pontiac Segis Avondale: Brother to the \$9,000 bull "Sir Pontiac Waldorf Pietertje", sired by a brother to K.P. Lass, 44.18; K.P. Diona Pietertje, 40.18 lbs. from a brother to dam of "Pontiac Josie", 40.14 lbs. His dam 29.89 lbs. at four years, sired by a brother to sire, "Duchess Lucy Mercedes", 46.83 lbs., from a 31.71 lb. sister to sires Segis Payne Johanna, 50.68 lbs.; Pancher Farm Maxie, 46.84 lbs.; Mabel Segis Kornidye, 40.32 lbs. Her dam from sister sire is "Pauline DeKol Ophelia", 44.51 lbs. Stock for sale. Wm. A. Rife, Hespeler, Ont.

Manor Farm Holsteins

Those wishing a young sire from high-record dams and sired by King Segis Pontiac Posch 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. Eleven bull calves of lesser note and females all ages.

R. M. HOLTBY R. 4, Port Perry, Ont.

be starved" has bucked up everybody—not that there was ever any fear of that haunting us, but his statements upon how well agriculture has responded to the call was a pleasant little pat on the back to "John Barleycorn", and the farmer gets very few pats from any Government, they are usually kicks on the place where John settles down o' night-time.

ALBION.

Questions and Answers. Miscellaneous.

Board of Child.

Can a farmer who engages a married couple by the month when they are leaving retain money for the board of a child, he knowing at the time of engagement that said child was coming and child's board was never mentioned till time of leaving. We were hired by the month board included and still hold a copy of agreement.

AN OLD SUBSCRIBER.

Ans.—Under the circumstances it is scarcely likely.

Succession Duty.

1. What value does an estate have to reach for the government to get a percentage when left solely to the widow and children?

2. What percentage does the government claim?

3. When over a certain amount is the percentage on the whole amount?

Ontario. SUBSCRIBER.

Ans.—1. Over \$25,000.

2. Where it exceeds \$25,000, and does not exceed \$50,000, one per cent.

3. Yes.

Horse-radish—Lump on Horse.

1.—Will you please publish through your valuable paper information, as to where I could get a machine for grating horse-radish, and at what price? Is a farmer allowed to sell prepared horse-radish from house to house in a small town?

2. Our horse has a swelling on right fore-foot just an inch or two above knee joint on outside, he is not lame, but seems sore when pressed with the hand. The lump seems quite hard, about the size of an egg, has been so about five weeks; am going to put them on a thresher in about three weeks. Would you kindly advise what to do? M. C.

Ans.—1. An ordinary food chopper such as may be purchased from any hardware store will do the work of grating or grinding. They are not expensive costing in the neighborhood of \$1.50 to \$2. Each municipality has its own regulations re selling.

2.—If the horse does not show lameness possibly it would be as well to leave the lump alone, or you might try an absorbent liniment or blister such as the following—a mixture of two drams each of biniodide of mercury and iodide of potassium in eight ounces of alcohol or water.

Strawberries—Ripe Cucumber Pickle.

1.—I have been taking your paper over a year now and would not be without it for any money. Would you be so kind and direct me where I could secure some strawberry plants, and when is the best time to plant them? How far apart? State care of them in the winter.

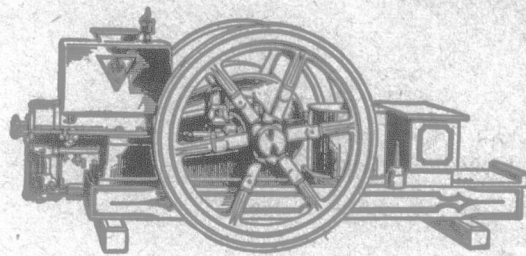
2. I would like to secure a good recipe for ripe cucumber pickles.

FARMER.

Ans.—Strawberries may be transplanted in August or September, but it is far more satisfactory to leave the transplanting until the following spring. Arrange to get plants next spring. Have land clean and well prepared. Set plants three feet by three feet or three feet by four feet, and train to a matted row. Cultivate frequently after setting the plants. Keep weeds down. Cover as soon as the ground is frozen, with straw or strawy manure. Rak e off in the spring as growth is beginning. Plants may be secured from nurseries advertising in these columns. We would advise you to watch this paper for advertisements of growers also early next spring.

2. Take 1 dozen ripe cucumbers, peel and remove seeds, cut in large pieces as they shrink in cooking. Cover with vinegar over night. If vinegar is very strong add one-third water. Drain the following morning. Add 1 pint vinegar, 2 pints white sugar, 1 bunch stick cinnamon, cook till cucumbers look clear.

ALPHA



—the engine that takes the work out of farmwork

An Alpha will saw more wood in a day than you can saw by hand in a week.

It will pump water all day long without watching.

It will run your separator, churn or washing machine.

It will run a thresher, feed cutter, or silo filler.

There will not be a day when you cannot find some way in which your Alpha will save time, money and labor for you.

Owning an Alpha is cheaper than hiring someone else's engine. The money you now have to pay out for engine hire when you need power, and the greater amount of work you could do if you had an engine of your own would soon pay the cost of an Alpha.

The Alpha is a simple, powerful engine that will give you more reliable service and cause you less trouble than any other engine you can buy.

Ask for catalogue, prices and complete information. Made in eleven sizes, 2 to 28 H.P. Each furnished in stationary, semi-portable or portable style, and with hopper or tank cooled cylinder.

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LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and Butterworkers. Catalogues of any of our lines mailed upon request.

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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 trained 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.) 35.12 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. (Farm at Stop 55, Yonge St. Radial) JEFFERSON, ONT.

SUMMER HILL HOLSTEINS

The only herd in America that has two stock bulls that the dam of each has milked over 110 lbs. a day, and their average butter records are over 55 lbs. a week. We have 50 heifers and young bulls to offer, by these sires, and out of dams just as well bred. We invite personal inspection.

D. C. FLATT & SON R. R. 2, Hamilton, Ont. Phone 7165

Pioneer Farm Holstein Herd With big yearly records and high average butter-fat test, and headed by Canary Hartog, grandson of Royalton Violet at 10 years, 30.39 lbs. butter, 735 lbs. milk in 7 days; 29,963 lbs. milk, 1,300 lbs. butter in 1 year. Sire's dam, Royalton De Kol Fern, 34.60 lbs. butter in 7 days, 116 lbs. milk in one day. Bull calves for sale, born after Jan. 25th, 1917; dams over 11,000 lbs. milk up to nearly 16,000 lbs. milk in 1 year, at 2 years old. Walburn Rivers, R. R. No. 5, Ingersoll, Ontario. Phone 343L, Ingersoll Independent Line.

Riverside Holsteins Herd headed by "King Johanna Pontiac Kornidye" a brother of Pontiac Lady Kornidye, 38.02 lbs. butter in 7 days, 166.92 in 30 days—world's record when made. His ten nearest relatives have official record that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R of P cow of Canada was bred here. Choice young bulls for sale. J. W. RICHARDSON, R. R. No. 2, CALEDONIA, ONT.

WILLOWBANKS HOLSTEIN-FRIESIANS

Herd headed by King Walker Pride (C. H. B., 17362) (A. H. B., 207261) who is a son of the famous King Walker and the great show cow, Pride Hengerveld Lennox 30.12, who is a granddaughter of Blanche Lyons De Kol 33.31 and King Segis, who is a grandsire of world-champion cow, also of the two highest-priced bulls of the breed. Young stock for sale. C. V. ROBBINS Bell Phone WELLANDPORT, ONT.

Record Breeding and Great Individuality are combined in the young sons we are now offering from daughters of Lewis Prilly Rouble Hartog, and sired by Baron Colantha Payne. They will improve most herds. Several are of serviceable age. See these. T. W. McQUEEN, Oxford County, TILLSONBURG, ONT.

VIKING



Cream Separators of Quality

A VIKING CREAM SEPARATOR can be had from \$26.70 up to \$86.15. But whether

it is a one-cow separator or a fifteen-cow separator, you can depend upon it that the Viking will give you a better service for less than you would pay elsewhere. You save not only on the first cost but also on repairs. You get a larger capacity with fewer parts to wash, and fewer parts to wear out.

Write for interesting descriptive booklet, or ask your dealer. Dept. 4

SWEDISH SEPARATOR COMPANY
515 South Fifth Ave., Chicago, Ill.

Boo Spavin

Cure the lameness and remove the bunch without scarring the horse—leave the part looking just as it did before the blemish came.

FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid blemishes—Boo Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists
Church Street, Toronto, Ont.

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- | | |
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| Cotton Seed Meal | Linseed Oil Cake Meal |
| Corn Oil Cake Meal | Gluten Meal |
| Digestive Tankage | Distillers' Grains |
| Bran | Shorts |
| Crushed or Ground Oats | Re-cleaned Screenings |
| Feed Wheat | Laying Mash |
| Scratch Feed | Mill Feed |
| Fattening Mash | 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.

TWENTY FIVE YEARS BREEDING

Registered Jerseys and Berkshires
We have bred over one half the world's Jersey Champions, for large yearly production, at the pail. We bred and have in service, the two grand Champion Berkshire boars. If you need a sire for improvement, write us for literature, description, and prices.

HOOD FARM, LOWELL, MASS.

Fernbrook Ayrshires

Young bulls for sale (out of R.O.P. dams) from one to fifteen months old; tracing closely to the world's champions, Garclaugh May Mischief and Jean Armour.

COLLIER BROS., Beachville, Ont.
(OXFORD COUNTY)

Every farm should have an

AYRSHIRE

The Cow for Profit

WRITE

Canadian Ayrshires Breeders' Association
W. F. STEPHEN, SECRETARY-TREASURER
HUNTINGDON, QUE.

Glencairn Ayrshires Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick, Rockton, Ont., Copetown, Stn., G. T. R.

Choice Offering in Ayrshires At Special Prices. Several young bulls of serviceable ages. All from R. O. P. sires and dams. Come and see them.

Jno. A. Morrison, Mount Elgin, Ontario.

CITY VIEW AYRSHIRES

We want a new herd bull. A short description; give numbers of sire and dam; must have official records. James Begg & Son, R. R., St. Thomas.

Care and Feeding Count.

The dairy husbandry section of the Iowa agricultural experiment station has taken native cows from the Ozark hills of Arkansas, representing as near the unregenerate type as it was possible to secure, and in an investigation extending over a series of years it is shown that even these cows were capable of producing 163.6 pounds of butter fat the first year under favorable conditions and good feeding. When mated with pure-bred sires of the dairy breeds the heifers increased their production 25.5 per cent. over the records of their dams in the first generation. The native cows when bred to native sires produced heifers that, reared under favorable conditions, increased the yield 10 per cent. over that of their dams, and in one case the same cow when bred to a pure-bred sire produced a heifer that increased the production 37 per cent. in the first generation. Two of these native cows that have now been under investigation for four years have shown the following increased production from year to year: Second year, 25 per cent; third year, 53 per cent.; fourth year, 63 per cent. It is significant and highly encouraging that animals without any improved blood will respond so readily to improved conditions and show such marked increase in yield of food products, and that by improving both environment and blood the increase in production is even much greater.

The Young Beef Pays Best.

It is a well-established principle that digestion is more complete and the conversion of feeds into meat is more efficient in the younger than in the mature animal. It is only in sections where grazing is abundant and cheap that the conditions will warrant the longer feeding periods, which produce the mature and heavy-weight animals. Practical maturity may be obtained under favorable conditions in one-third the time at one-third less cost, and a finished product that is altogether more desirable and less wasteful for the consumer. In attaining this improvement the farmer must make use of improved breeding and feeding in the same manner as has been pointed out in increasing dairy production.

Improvement in live stock, and thereby the increase of live stock, also contributes to increased food supply in a marked degree in an indirect manner. The grain yields of ten of the best live stock farms in Iowa were compared with ten of the best grain farms in the same locality, extending over a period of five years. The stock farms showed an increase of 14 bushels of corn per acre, 7 bushels of oats per acre and 1 ton of hay, which was equivalent to a 36 per cent. increase of corn yield, 21 per cent. of oats and 83 per cent. of hay. These results are confirmed in a larger way by the returns from stock and grain farms reported by the 1910 United States census.

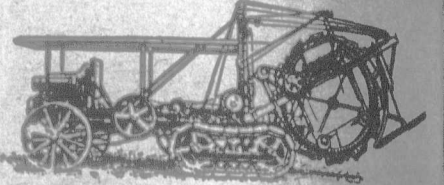
Do It Now!

- "If you have a bit of news, Send it in.
 - Or a joke that will amuse, Send it in.
 - A story that is true, An incident that's new, We want to hear from you! Send it in.
 - Will your story make us laugh? Send it in.
 - Send along a photograph, Send it in.
 - Never mind about your style, If it's worth the while, And will make the reader smile, Send it in.
- Highway Magazine.

On a road in Belgium a German officer met a boy leading a jackass, and addressed him in heavy jovial fashion as follows:

"That's a fine jackass you have my son. What do you call it? Albert I bet!"
"Oh, no officer," the boy replied quickly. "I think too highly of my king."
The German scowled and returned: "I hope you don't dare to call it William."
"Oh, no, officer. I think too highly of my jackass."—Paris Liberte.

Dollars in Ditches



Actual photo of gasoline-driven Buckeye Traction Ditcher. Tracks on apron wheels which give support on soft ground.

Contract Ditching with a Buckeye Traction Ditcher is a sure

way to make good money! Scores of men—farmers, threshermen, and people who want an outdoor business—are cleaning up \$10, \$15 and sometimes \$20 a day ditching by the rod for farmers whose land needs underdrainage.

Here is a letter from a man who cleared \$22.64 per day with a Buckeye Ditcher; and what he is doing you can do.

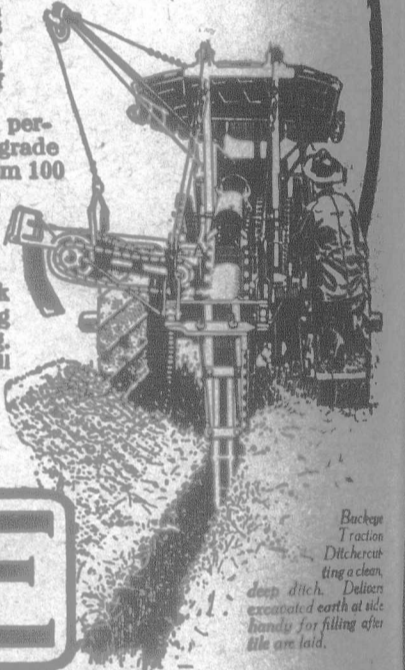
"My gross earnings from 84 days operation were \$2,200. I paid out for help and supplies \$278 and my repair bills amounted to \$20. I had never done contract tiling before getting your machine and my farm work also took up considerable of my time."
ED. UVAAS, Larsen, Wis.

The Buckeye Traction Ditcher makes a perfect trench at one cut—all finished true to grade and ready for tiling. Yes! and it cuts from 100 rods to 150 rods per day, winter as well as summer. Contract ditching is a year 'round business--no lost time except in stormy weather.

Write for "Dollars in Ditches" a book of facts, telling how men are laying away money by contract ditching.

We have a Service Department that will show you how to get started at this business and how to be successful.

The Buckeye Traction Ditcher Co.
2010 Crystal Ave., Findlay, Ohio



Buckeye Traction Ditcher cutting a clean, deep ditch. Delivers excavated earth at side handy for filling after the are laid.

"A Perfect Trench at One Cut" BUCKEYE Traction Ditcher

FERTILIZE YOUR GRASS LANDS WITH Sydney Basic Slag

Perhaps you think when you have bought fertilizer for your crops you cannot afford to spend money on your meadows or pastures. If an expenditure of \$5.00 per acre will give you an extra ton of hay, or enable you to feed 50% more stock, isn't that good business? That is what Basic Slag has done for other Ontario farmers. Write us, and our representative will give you a call and will put you into communication by telephone with some of the leading agriculturists of Ontario, who will give you their experience of Sydney Basic Slag. Isn't it worth while to take advantage of this offer? It won't cost you a cent, as our man pays all expenses.

The Cross Fertilizer Co., Limited

Sydney, Nova Scotia

THE WOODVIEW FARM CANADA'S MOST BEAUTIFUL JERSEY HERD

JERSEYS

LONDON, ONTARIO
John Pringle, Prop. see the herd. We work our show cows and show our work cows.

Young BRAMPTON JERSEYS Bulls

For the next fortnight we are making a special offering on young bulls, bred from the highest producing families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.P. records, save one. Females, all ages, also for sale. B. H. BULL & SON, BRAMPTON, ONTARIO

Glenhurst Ayrshires For 50 years I have been breeding the great Flea 60-lb. cows. I have lots of them get 60 lbs. a day on twice-a-day milking. Young bulls 1 to 10 months of age, females all ages. If this kind of production appeals to you, write me.
James Benning, Williamstown, Ont.

Edgeley Stock Farm The home of Canada's greatest producing Jersey, SUNBEAM OF EDGELEY, the Sweepstakes Dairy Cow at the recent Guelph test; is also the champion R. O. P. butter cow for Canada. Would a grandson or great-grandson of this famous cow improve your herd? We have them. Write for particulars.
JAS. BAGG & SON, WOODBRIDGE, C.P.R.—CONCORD, G.T.R. EDGELEY, ONT.

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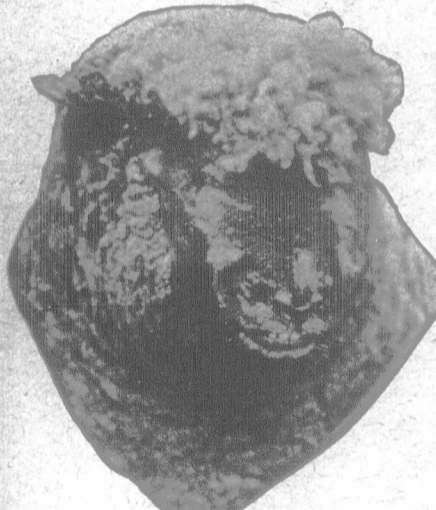


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Hallam's Trappers' Guide—96 pages; illustrated; English or French; tells how and where to trap; what baits and traps to use; is full of useful information. Hallam's Trappers' Supply Catalog—36 pages; illustrated; rifles, traps, animal bait, headlights, fish nets, trappers' and sportsmen's supplies, at low prices. Hallam's Raw Fur News—Gives latest prices and advance information on the raw fur market. Write to-day for above. Address, using number given below.

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Our Breeding and Quality



CHAMPION OXFORDS OF AMERICA Summerhill Stock Farm

For size, quality and breeding, our Oxfords cannot be excelled. Our flock has won the Chicago championship yearly, since 1910, and the championships at all the leading fairs of Canada since the flock was established, in 1879. We have for sale 20 yearling rams and 30 ram lambs (flock headers), fifty yearling ewes and fifty ewe lambs, all sired by the best rams obtainable. Write and let us know what your requirements are. Prices reasonable.

Peter Arkell & Sons, R.R. No. 1, Teeswater, Ont. H. C. Arkell, W. J. Arkell, F. S. Arkell.

RAW FURS-HIDES WOOL & C. SEND US YOUR REQUIREMENTS—TO RECEIVE HIGHEST MARKET PRICES. JOHN HALLAM, Limited 9 Hallam Building TORONTO

Pure Cottonseed Meal

"Dixie Brand".....41% protein, fat 5.50% "Forat Brand".....38.55% protein, fat 5.00% "Danish Brand".....36% protein, fat 5.00% "Creamo 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 OXFORDS AND SHROPSHIRE A choice lot of ram lambs of both breeds. Also six shearing Shrop, ewes, twenty Shrop, ewe lambs. A few Oxford ewe lambs, also shearing and two-shear ewes.

Adam A. Armstrong, Box 402, Fergus, Ontario

Leicester Sheep RAMS AND EWES FOR SALE FREEMAN, ONT. C. E. WOOD Burlington Sta., G.T.R.

LINDEN OXFORDS

We are offering a number of first-class ram lambs and shearing rams this fall, at reasonable prices. Jos. Mountain, successors to R. J. Hine, R. R. No. 5, St. Mary's, Ont.

Questions and Answers. Miscellaneous.

Spiny-leaved Sow Thistle.

I am enclosing a plant that I find on my farm this year for the first. Can you tell me what it is and the best way to get rid of it?

AN OLD SUBSCRIBER.

Ans.—The plant sent is spiny-leaved or prickly sow thistle. It is an annual and not nearly so bad a weed as the perennial sow thistle. It is rather difficult to entirely suppress in cultivated fields, but will not give much trouble where a short rotation of crops is followed and where sheep are kept on pastures. It is not considered a bad weed, but the perennial variety is one of the worst.

Delayed Settlement.

The Hydro-Electric Commission hold a right-of-way across our farm, have held it for a number of years. We are unable to get a settlement with them. What can we do to prevent them from owning the right-of-way by right of possession? Ontario. L. C. W.

Ans.—By commencing an action. You should instruct a solicitor to take the appropriate legal steps on your behalf without any more delay other than such brief period as will admit of a preliminary letter and notice of action. It might be that such preliminary steps would be sufficient to bring about the desired settlement and render litigation unnecessary.

Sweet Clover for Seed.

We have a field of sweet clover which we had intended cutting for hay, but owing to weather conditions we found it would be impossible to cure it, so have left it for seed. When is the proper time to cut? How should it be cut? Is it hard to save? How is it threshed? J. A.

Ans.—The first crop of the second year is frequently allowed to mature for seed, although in some cases the second crop will produce seed. When about three-quarters of the seed pods become dark it is time to cut. The binder is used and the sheaves are stooked the same as cereal grains. Care should be taken not to handle the sheaves when they are very dry, as the seed shells off badly and much of it would be lost. However, when hulling it is necessary to have it perfectly dry. It can be threshed with the clover huller and the yield varies from two to eight bushels per acre. It is not particularly hard to cure in the stook, as the plants become fairly well dried out before they are cut.

A Wool-buying Agency.

A wool dealer sent a sack to my place by my son to see if I would sell him my wool. Later he called and made an agreement with me to buy up all the wool I could in the neighborhood at a fixed price for washed and unwashed, and he left wool sacks for same and told me to draw on him for any money I needed to pay for same. After filling sacks I shipped the wool to him in the same class as I bought and paid for it. A few days later I received word from him that he had sorted out several hundred pounds of unwashed from the washed class, and said he would only pay me unwashed prices for it. I replied that I bought and paid for it as washed, and that if he was not entirely satisfied with the wool to send it back at my expense and I would return any money I drew on him for with interest to date. This he refuses to do and insists on keeping the wool at his own classifying. He also stopped the last draft I drew on him, and I was obliged to use several hundred dollars of my own money to meet the checks I gave, to pay for the wool, which he refuses to send me unless I accept it as payment in full.

1. Will the law allow him to keep the wool at his own grading and compel me to stand the loss, as there was several hundred dollars profit in the deal for him? 2. If I have to sue him, can I sue here where all the business was done and where my witnesses are, or would I have to sue where he resides? S. H.

Ans.—1. Under the circumstances stated we think not.

2. Assuming that the amount involved is beyond the limit of Division Court jurisdiction, you can issue your writ from the office of the proper court in the county town of your own county.

The New HIP-ROOF adds still Another Advantage to the TORONTO 1917 MODEL SILO

The TORONTO Silo, with its airtight, heat-retaining walls of 2" Spruce and its tight-fitting doors, has always made an exceptionally high quality Ensilage.

QUALITY and QUANTITY

With the new-Hip Roof it will now make an exceptional quantity as well! That's because the hip makes it possible to tramp the ensilage thoroughly right up to the eaves, and so put in several tons extra.

We ship the Toronto Silo ready to go up with the least possible amount of work on the job. Its first cost is moderate, and it saves money every year by making "more and better ensilage".

The TORONTO Pneumatic Ensilage Cutter

driven by a TORONTO Gasoline Engine, is the hardest, most satisfactory rig you can use for filling this or any other silo.

Write for our Booklet, "Toronto Ensilage Equipment". It will tell you about all the fine points of both Silo and Ensilage Cutter.

We also manufacture Windmills, Pumps, Stable Equipment, etc.

A TORONTO GRINDER

on your floor will save you time spent in teaming grists

ensure perfect digestion and more feeding value from your grain—and prevent live weed seeds from passing through into the manure.

Low-down construction, weight, strength, patented feed and plate control and relief springs ensure fast, even grinding and long wear.

Ontario Wind Engine and Pump Co. Limited Dept. "F" TORONTO and MONTREAL.

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COTTON SEED MEAL

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We are pioneers in this business. COTTON SEED MEAL is our specialty, and has been for over 40 years. We devote to it our entire time. We can supply you at all times. We select the quality shipped under our Brands and keep them up to a high standard.

Lone Star Brand 43% Protein Owl Brand 41% Protein Dove Brand 38 1/2% Protein Jay Brand 36% Protein Fox Brand Feed Meal 30% Protein

OUR BRAND ON THE TAG MEANS QUALITY IN THE BAG

FARNHAM OXFORD DOWNS

Flock established from the best flocks in England. Our initial importation was among the first in 1881. Having quit the show-ring, we now make a specialty of breeding animals. Special attention to flock headers. Both yearlings and ram lambs; also a few Hampshire ram lambs and one hundred superior range rams comprise our offering for the present season HENRY ARKELL & SON, (Tel. 355 r. 2, Guelph) R. R. No. 2, Guelph, Ont., Canada.

ANOKA FARM SHROPSHIRE

won 11 firsts, two champions at Toronto, 1916. War conditions prevent an extensive exhibit this year, but can supply rams and ewes of same breeding at breeders' prices. F. W. Gurney, R. R. No. 3, Paris, Ont., Brant Co.

Cloverdale Shropshires and Berkshires—40 shearing rams, 70 shearing ewes, an exceptionally choice lot; true to type and well grown; nearly all sired by the show ram, Nock 16 Imp. In Berkshires, the usual strong offering, including sows just bred. C. J. LANG, Burketon, Ont.

Leicesters and Shorthorns

A fine lot of shearing rams and ram lambs for sale. Also a number of Shorthorn heifers of breeding age. Geo. B. Armstrong, R.R. No. 1, Teeswater, Ont.

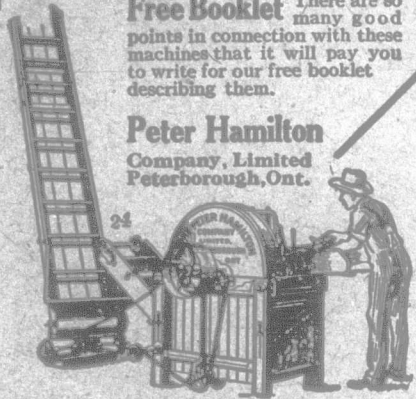
Peter Hamilton Carrier Silo Filler and Feed Cutter

If you have a gasoline engine, why not fill your own silo and cut your own feed? We have a machine which your engine will run in an efficient manner, and which will answer all your feed-cutting requirements.

PETER HAMILTON machines have tremendous strength and great capacity. They will cut up an enormous pile of feed in a day, and because of their shearing method of cutting only a small amount of power is required.

Free Booklet There are so many good points in connection with these machines that it will pay you to write for our free booklet describing them.

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Company, Limited
Peterborough, Ont.**



Yorkshires

Young sucking pigs, both sexes; also young sows, four months old. Address

Weldwood Farm
Farmer's Advocate
LONDON ONTARIO

Tamworths

Young sows and boars from several litters just weaned.
HEROLDS FARMS, Beamsville, Ont.
(Niagara District)

TAMWORTH'S

Young sows bred for Fall farrow, and a nice lot of young boars for sale. Write
John W. Todd, R. R. No. 1, Corinth, Ont.

YORKSHIRES Sows 170 lbs. and under not yet bred. Boars 2 and 3 months, 60 to choose from. Bred from prize-winning stock, Eldon duke still at the head. Tell us your wants.
Wm. Manning & Sons, Woodville, Ontario.

Morrison Tamworths and Shorthorns bred from the prize-winning herds of England. Tamworths, both sexes, boars from 2 to 12 months. Shorthorn bulls from 5 to 10 months old, reds and roans, dandies. **Chas. Currie, Morrison, Ont.**

SPRINGBANK CHESTER WHITES Young sows bred and more ready to breed. Young pigs, pairs not akin. A number of them are sired by Curly King—8997—who has been a winner at Toronto and London the last several years.
Wm. Stevenson & Son, Science Hill, Ont.

PROSPECT HILL BERKSHIRES Young stock, either sex, for sale, from our imported sows and boar; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right. **John Weir & Son, Paris, Ont., R. R. 1.**

Polands, Durocs and Berkshires Young stock at all times, both sexes and all ages. Can also supply anything in Dorsets or South-downs. Everything priced to sell.
Cecil Stobbs, Leamington, Ont.

Pine Grove Yorkshires Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction.
Joseph Featherston & Son, Streetsville, Ont.

Meadow Brook Yorkshires Sows bred for Sept. and Oct. farrow, and a few choice boars fit for service. Young pigs, both sexes and all ages. Prices right. **G. W. MINERS, R. R. No. 3, Exeter, Ontario, (Huron County)**

Yorkshires, Oxfords and Collies—Choice young pigs, both sexes. One of our sows has farrowed 101 pigs in 6 litters. A few good ram lambs.
B. ARMSTRONG & SON, Codrington, Ont.

DUROC JERSEYS Campbell 46th No. 3941, the grand champion boar at Toronto and London, 1916, heads one herd. I have 12 sows of which 5 are full sisters to Champion Sow, any age, Toronto and London last year. Will be pleased to show my stock to visitors.
Culbert Malott, Bell Phone E 90 R 1-2, R. R. No. 3, Wheatley, Ont.

Questions and Answers. Miscellaneous.

Curing Tobacco.

Should tobacco be gathered when green or when it gets dry and brittle? How is tobacco cured? Can the tobacco leaves be made into plugs for chewing and smoking?

P. J. H.

Ans.—Bulletin No. 25 on "Tobacco Growing in Canada" issued by the Department of Agriculture, gives information to the effect that a leaf of tobacco may be considered as ripe when it becomes spotted with small, yellow markings which make their appearance at the edge and tip of the leaf. The tip curves and hardens. Ripening proceeds from the bottom leaf to the top one, and when harvesting is done by cutting the stalks, a date must be chosen when the top leaves are ripe enough to take a good color in curing and before the bottom leaves are over-ripe. Generally speaking, cutting should be done about eight days after appearance of signs of maturity on the mid-stem leaves. Do not cut early in the morning when the leaves are still covered with dew. Care should be taken not to leave the plants lying too long in the field. Buildings especially fitted for the curing of tobacco are used. The tobacco stalks or leaves are hung up in this barn or building which is provided with side trap-doors to permit of proper ventilation. In damp weather it may be necessary to use artificial heat for drying. When curing is completed the leaves are stripped from the stalk and put in small piles and are afterwards tied, then they are packed in bales. Certain fermentation takes place before the tobacco is ready for manufacturing into plugs. Some use the tobacco after it is dried, but there is a certain process which it must be put through before it is formed into the commercial plug.

Horse Ailments.

1. Several horses were fed in the same manner, watered twice daily during the winter and three times during the summer. Hay was fed first, then water and then oats. One of the horses developed heaves; the others are perfectly healthy. What is the cause of heaves? Why should one animal develop it and the others not?

2. What is the cause of spasmodic colic and what is the best thing to do as first aid?

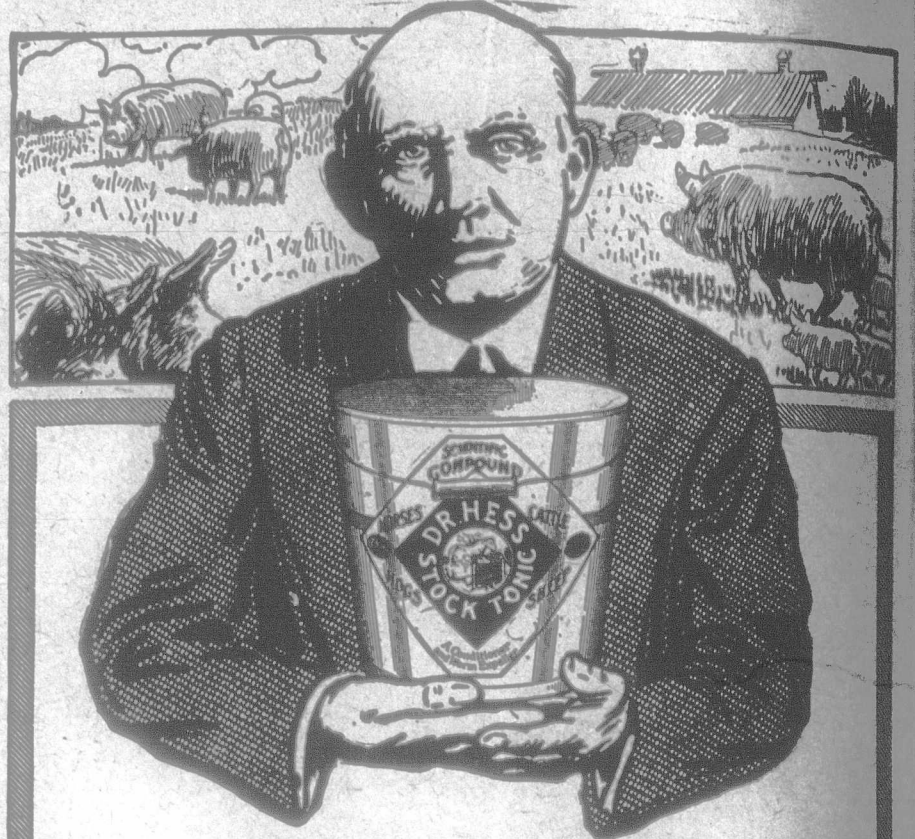
3. What would you recommend for a horse that has soft and easily broken hoofs?

Ans.—1. Indigestion may cause a horse to develop heaves, as that disease affects nerves of the stomach which connect with nerves running to the lungs, causing the air tubules to first become dilated and then to break down. The reason one horse developed heaves and another not may be that the one had a little stronger digestive system than the other. One may have been able to make better use of its feed than the other. A weakness of the digestive organs and of the lungs may have been inherited. It is difficult to get at the real cause of some of these diseases, as one trouble may cause a predisposition to another. Once a horse has developed the disease, dusty feed must be avoided, and allowing the horse to eat too much is detrimental. These things may have had something to do in starting the trouble.

2. Spasmodic colic is very often caused by improper feed, sudden changes of feed, overfeeding, watering when overheated. Treatment consists of drenching with 1½ ounces each of laudanum, sweet spirits of nitre, and tincture of belladonna in a pint of water. Repeat in two hours if necessary.

3. There is a big difference in the texture of horses' hoofs. Some are naturally hard and brittle; others are of a softer nature. In the former case allowing the horse to stand in two or three inches of water for a short time each day will be found beneficial. In the latter case, however, we do not know that much can be done to improve the texture. Proper shoeing and keeping the foot trimmed will go a long way in preventing breaking.

Never Went Too Far.—"He's always bragging about his ancestors."
"I admire his good judgment in stopping right there."—The Lamb.



Get Rid of Worms

Figure how much it's worth to you in dollars and cents to keep your hogs free from worms. Worms prevent thrift—retard growth—rob you of good, high-priced pork.

Dr. Hess Stock Tonic Drives Out the Worms

and at the same time tones and conditions the system. It enables your hogs to be at their best—to do their best. You take no chances. My Stock Tonic is guaranteed. You buy it at an honest price, from my dealer in your town who will return your money if it does not do as claimed.

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25-lb. Pail, \$2.50; 100-lb. Drum, \$8.50

Smaller packages in proportion.

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DR. HESS POULTRY PAN-A-CE-A
will help your hens through the moult.

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My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Sallys, the best strain of the breed, both sexes, any age.
Adam Thompson R. R. No. 1, Stratford, Ont., Shakespeare Station, G.T.R.

ENGLISH LARGE BLACK PIGS

We have for sale at present some young pigs of a breed new to Canada but standardized and very popular in England, from our pure-bred imported **LARGE BLACKS**. Stock excellent for crossing with other breeds. Their English reputation is that they grow large and fast. Also for sale, pure-bred English Berkshires.
Lynnore Stock Farm, F. Wallace Cockshutt, Brantford, Ont.

ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.
H. M. VANDERLIP, Breeder and Importer R. R. 1, Brantford, Ont.
Langford Station on Brantford and Hamilton Radial.

OAK LODGE YORKSHIRE HOGS

We have a large selection of extra-good boars and sows of different ages. We are selling at prices that make it attractive for the purchaser. Write for what you want.
J. E. Brethour & Nephews, Brantford, Ontario

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1 1/2 H. P. \$65.

On Skids With

BUILT-IN MAGNETO

3 H. P. \$115.

6 H. P. \$205.

F. O. B. Montreal or Toronto

A Fairbanks-Morse Quality Engine at a popular price, the greatest Engine value offered.
All Sizes can Be Shipped Immediately from Stock

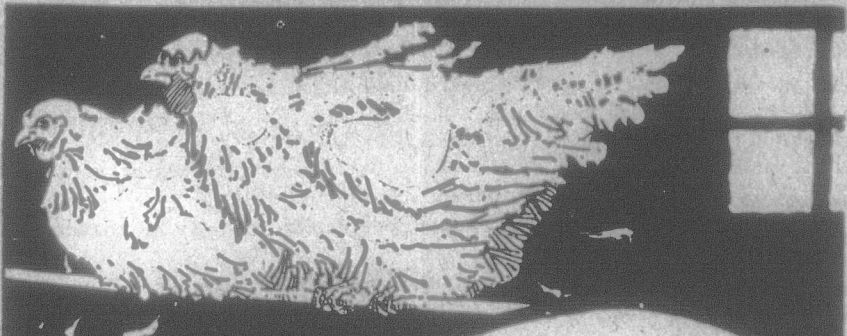
Simple—Light Weight—Substantial—Fool-proof Construction—
Gun Barrel Cylinder Bore—Leak-proof Compression—Complete with
Built-in Magneto. Quick starting even in cold weather. Low first cost
—Low Fuel Cost—Low Maintenance Cost. Long, efficient, economical
"Power Service".

SEE THE "Z" AND YOU'LL BUY IT.

Go to the dealer who displays the sign shown above. See the
features that make it the one best engine "buy" for you. When you
buy an engine from your dealer you deal with the local representative
of the manufacturer. He stands behind the engine he sells. He's res-
ponsible to you. He's at your service to see that you are satisfied.

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED
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You'll
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**Help
Wanted!**

These moulting fowls need help. You can
supply the necessary strength to expel the
old quills and shorten the moult by giving
them

**Pratts Poultry
Regulator**

It regulates the blood, bowels and digestive organs.
Tones up the entire system. Strengthens the egg-pro-
ducing organs. Promotes early fall and winter laying.

Put up in popular-priced packages, also in money-sav-
ing 25-lb. pails and 100-lb. bags. Ask your dealer.

Money Back If Not Satisfied.

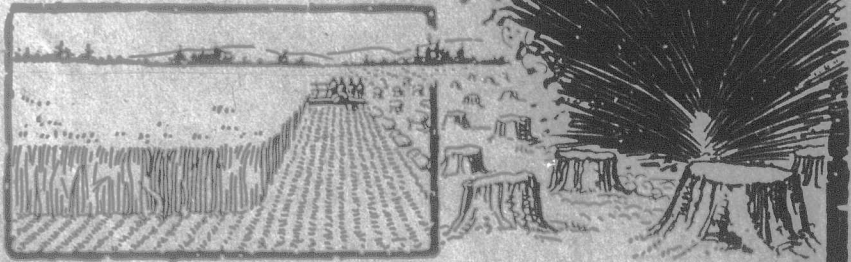
Our new book, "Poultry Wrinkles," tells
how to shorten the moult. Write for it.
It's FREE.

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Make that Stump-
Lot Earn a Profit



Get the benefit of the soil that has been
storing up fertility for years. Blast out the
boulders, blow up the stumps—and you will have
a productive field where waste land now exists.

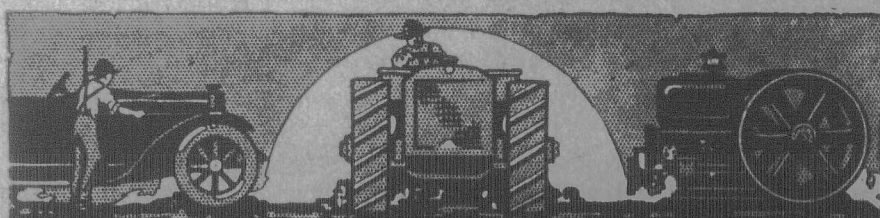
Use C. X. L. Stumping Powder
the one effective and economical means of
clearing your land.

C. X. L. Stumping Powder blows out your stumps,
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Did You Ever Offer a Farm for Sale?

Then you appreciate, indeed, the value in dollars and cents of a pure water supply. It increases the value of your property. The wise buyer will pay for pure water every time. And the buyer's idea is sound—absolutely. Impure water is a constant menace to health. Typhoid contaminated water alone is more dangerous than a machine gun—it is as deadly and it gives no warning.

THE IMPORTANCE OF PURE WATER

cannot be overestimated. It is more necessary to health, strength and physical development of man and beast than is food. As you already have discovered it increases the selling value of the farm. Therefore an investment in pure water is invariably profitable for the individual while it is a national service of high order—it conserves the health and strength of the nation's manpower and live stock.

Nor Need the Investment be heavy. Only a little care, labor and expense, usually, are required to ensure pure water. In the early fall when water is low is a most convenient time to do the work.

WHY WATER IS CONTAMINATED.

Source of Supply. The surface soil contains impurities, and these contaminate surface water. When filtered through ten feet of soil, however, the water is purified. Wells, therefore, in ordinary soil formation should be at least ten feet deep and should be protected to this depth to prevent the entrance of surface water.

Location of Well. Wells frequently have been dug in the barnyard, in the direct line of seepage from manure pile or privy, or in a low spot where surface water collects. Water from such wells is likely to be impure. If, to avoid these sources of contamination, the well is located at some distance from the buildings, the pump may be placed conveniently in the house or barn and connected with the well by an underground pipe. But the highest point in the pipe must be not more than 25 feet above the water level in the well.

Protection of the Well. The dug well very often permits the entrance of surface water, as do many drilled and driven wells. Every well should have water-tight curbing or casing for the first ten feet and a close-fitting, water-shedding cover to prevent

the entrance of surface water, of insects, frogs, mice, etc., of filth from the feet of persons, animals and poultry.

QUESTIONS FOR EACH TO ASK.

Is my well located on ground lower than that surrounding it? After a heavy rain is the water discolored? If it is, surface water is entering the well without being properly filtered.

Do I occasionally pump the remains of insects, earthworms, frogs, mice, etc., from the well? If so, the cover or curbing is not tight and the water is impure.

Is the well located in direct line of seepage from privy or barnyard? Is the water ever offensive to taste or smell? If it is, grave danger lurks in the well—fevers often are deadly.

TO PURIFY DRINKING WATER.

Any who are at all suspicious that the water, either at home or at school, is impure are invited to write Professor D. H. Jones, Bacteriological Department, O. A. College, Guelph. Professor Jones will at once send a sterile bottle with directions for obtaining a sample. Upon receipt of the sample a test will be made free of charge, and the analysis will be promptly returned.

Meanwhile guard the health of the family by disinfecting the water used as follows: Dissolve a level teaspoonful of chloride of lime in a teacupful of water, dilute the quantity with three cupfuls

of water, then add a teaspoonful of the diluted solution to each two gallons of water and stir thoroughly. The water thus treated will be without taste or odor and will be safe for human consumption.

TO IMPROVE THE OLD WELL.

The next step is to remove the cause of pollution. If it is a dug well in a good location, tear out the old lining ten feet down and relay with cement, backed by at least a foot of puddled clay. Raise the top above the level of the ground and bank with puddled clay to shed water. Then make the cover absolutely tight with cement or a double layer of boards. In case the well is in direct line of seepage from barnyard or privy, however, the only safe method is to change either the location of the well or the source of pollution.

If the drilled or driven well is sunk in the bottom of a dug well, exactly the same precautions must be taken. In any case, it is safer to puddle the clay or to cement around the casing to the depth of ten feet to prevent surface water following the pipe and contaminating lower water. The cover in all cases should be made perfectly tight.

For practical, timely and detailed information concerning:

The location of underground water.

Proper location of the well.

Proper protection of any particular well.

Relative value and uses of different kinds of pumps.

Installation of water systems for house or barn.

Purifying water in or out of well.

How to have water tested for impurities.

Diseases that are caused by impure water.

Value of pure water in development of live stock.

Or information concerning any other point of practical interest regarding wells, pure water or water equipment, write the Office of the Commissioner of Agriculture, Parliament Buildings, Toronto, Ont.

DO YOU KNOW OF A FARM FOR SALE?

If so let us know. It is expected that returned soldiers with some capital will wish to buy good farms in Old Ontario, conveniently located and at a reasonable price.

If you wish to sell your own farm, kindly forward a complete description of it—the location, distance from church, school, post office and nearest town, and the condition of the roads, nature and condition of soil, amount of drainage done and required, kind and condition of fences, number of acres and how cropped, noxious weeds prevalent, complete description of buildings and source and condition of well water. State sum for which you will sell.

Write at once the office of the Commissioner of Agriculture, Parliament Buildings, Toronto.



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