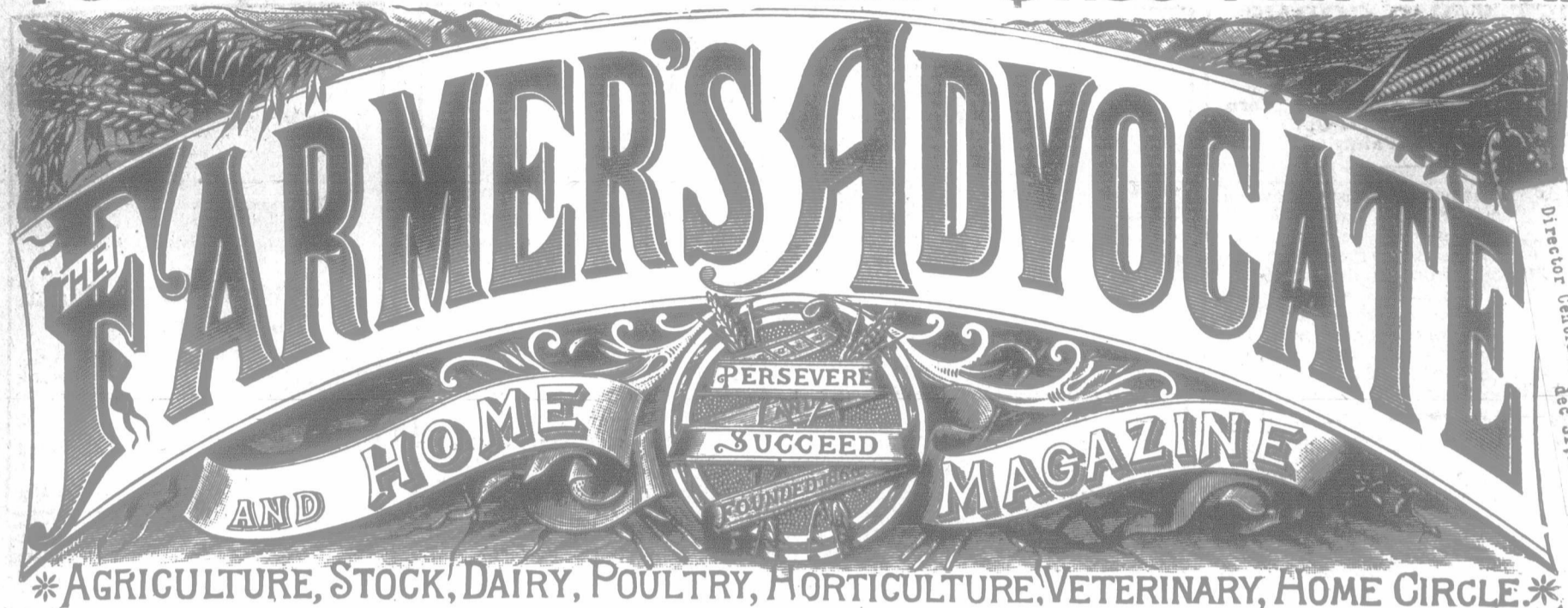


PUBLISHED EVERY WEEK. \$1.50 PER YEAR;



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Vol. LII.

LONDON, ONTARIO, OCTOBER 25, 1917.

No. 1309

# IT IS NECESSARY!

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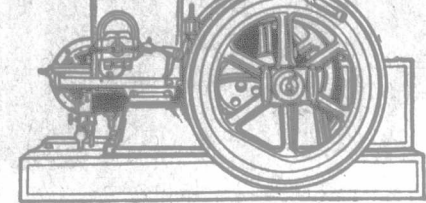
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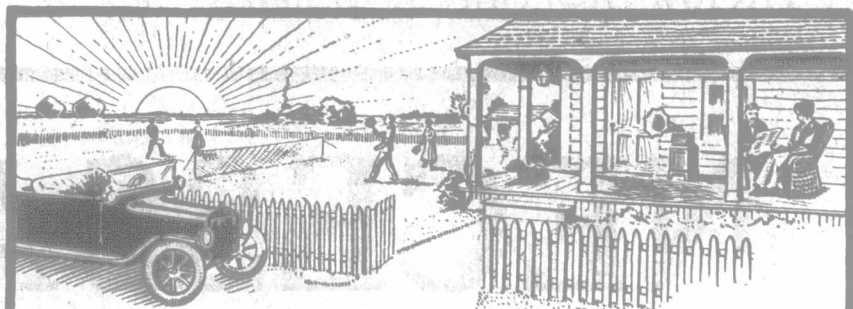
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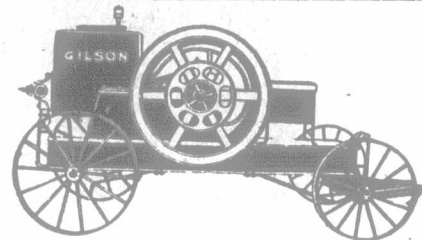
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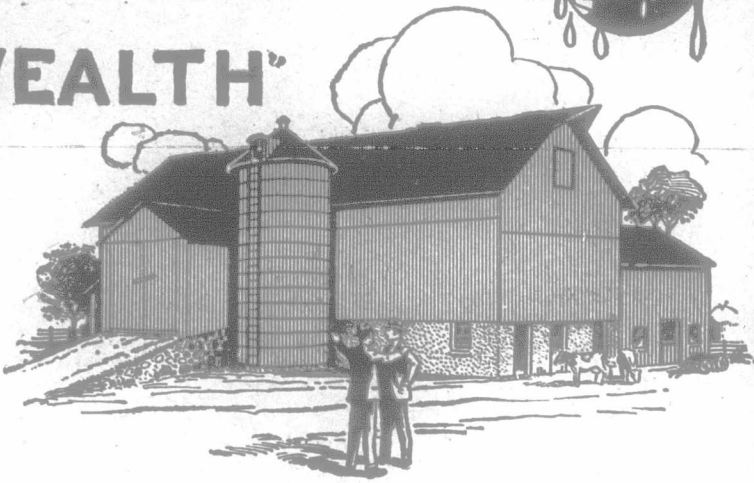
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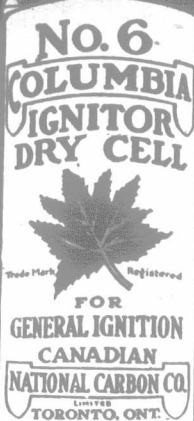
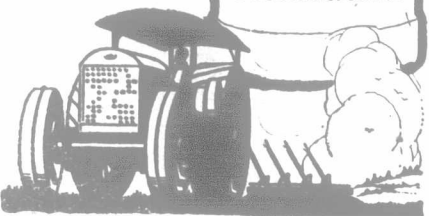
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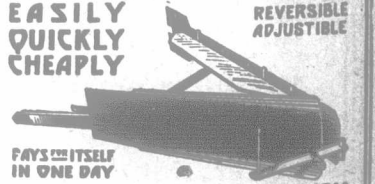
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# The Farmer's Advocate and Home Magazine

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1866

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LII.

LONDON, ONTARIO, OCTOBER 25, 1917.

1309

## EDITORIAL.

A clean stable turneth away losses.

Let's plow! There is no need to electioneer.

Stable the stock early to avoid loss of flesh or of milk.

The politician who has a grouch just now belongs to the win-the-election party.

There should be no need of mud-slinging now that Canada has a Union Government.

Canada is approaching the real testing time in the war. Canadians will not falter.

If you have made any extra money this year a good investment is available—war bonds.

Feed is dear. So are feeders. But the good cattleman can make it pay if he has the right kind of cattle.

God loves a cheerful giver to the Red Cross Fund. Help the good samaritans to carry comfort to the firing line.

Plan to manage the farm with as little labor as practicable, and yet produce the maximum possible with the help available.

This country is about to send more men to fight. Plans must be laid to feed the fighters and supply them with every possible comfort.

The successful live-stock man takes years to build up his business and does not dispose of his best stock in a few hours. He keeps the good ones.

The shorter the daylight the greater the necessity to push the work. A satisfactory spring is impossible unless the fall work is well advanced when winter sets in.

The farmer who has been depending entirely upon single men for hired help may find himself with no help next winter. Again a cottage for a married man wins out.

The Food Controller has decided not to set the price of potatoes at \$1.25 per bag to the consumers. He has found out that it cost something to produce spuds this year.

It is a mistake to say that it is just as easy to keep the best as it is to maintain mediocre animals. The top-notchers are produced and maintained only with considerable effort. But they doubly repay the owner.

Why is it that the man who thinks he could farm far better than the farmer farms is usually at some other work, while the farmer who thinks he could do something else to better advantage than farm farms? It's a queer world.

Investigation shows that there are too many cull horses in America, but a great scarcity of the best type of heavy drafters. Canadian horsemen should govern themselves accordingly and breed for weight and quality.

In union is strength. Now that Canada has a Union Government the country's strength should be felt even more and more in the fight for liberty. More will go to the front, but as they go those left at home should remember their duties are greater. All can help.

### Seeing and Thinking.

A correspondent in an article in this issue points to a few actions on the part of pleasure seekers which do not fit in very well with the calls now being made upon those who have the cause of liberty and justice at heart. While he toils long hours in his fields he notices that the river bank is well lined with fishermen who fish for fun as well as for fish, and the leading road which passes his gate is lined with cars which speed for the pleasure of those in tonneaux rather than on business bent, as evidenced by the fact that when it rains no fishermen fish and few motors honk their noisy way along. There is some truth in what this writer says. Of recreation anyone must have a little. The farmer gets the least time of all. But if he be an observant person who studies nature through seeing as he should, he has many recreative moments while at his daily toil. The fact remains, however, that among those who run cars the greatest mileage for pleasure are to be found a number of the loudest talkers against the farmer, the noisiest of the clamorers for greater production and more thrift, and the bitterest critics of the laboring man. It is like the millionaire's wife in silks, satins, picture hat and expensive furs alighting from her chauffeur-driven limousine at the door of the cottager to get the frugal and thrifty wife of the latter to sign the food pledge card—a mistake. Canada is at war and everyone should realize the fact. It is not enough that the homes from which noble hearts have gone should do all the worrying. This war touches all, and the man who over-indulges in frivolous pleasures, whether they be in car or whatnot, is culpable. The man who doesn't work his best, save to the uttermost and give till it pinches, one or all three, is not doing his bit as a soldier of Canada behind the lines and in direct support of the troops at the front.

Our correspondent draws attention to his farm work. He is preparing for a big crop and more live stock next year, and withal he does not forget the most important crop of the Canadian farm—children. A farm may produce big yields of grain and roots, may be the home of the choicest heifers, or the heaviest milkers, may boast the weightiest drafters or the fastest trotters, may stable the wooliest of the golden-fleeced and the longest and finest of bacon hogs, but its chiefest value is as a place to raise men, and women too. Of what real value would our farms be if it were not for the men raised thereon?

### Partyism Buried in Union.

Thinking people who put the welfare of Canada ahead of party politics are all ready and willing to commend Sir Robert Borden for his efforts toward a real Union Government, which has finally been brought into being. True, there are some still inclined to complain that the deal was consummated too late to please them, and there are others who say, "better late than never" in a critical tone, but after all credit must be given where credit is due, and Sir Robert deserves no small share at this time. On the other hand, the country should commend the action of the Liberal leaders who have foregone high party places to enter the Union. The credit this time is to the big men of both parties, and must not all be placed in one spot. Those cabinet men who have relinquished office in favor of the new men—all those who have lowered the sullied banner of partyism and run up the clean flag of Canada, true patriotism and service—are deserving of the good respect and honor of the Canadian people. But for those who still place party first, if such there be, let the next and future ballots spell political oblivion. In Union is strength. The personnel of the new Cabinet reveals a real union of forces. It surely seems strength. A big task confronts the Ministry, a task which will try the Union and measure the calibre of Canada's

biggest men. Every Canadian, Grit or Tory, true to Canada hopes the men will each and all measure up thirty-six inches to the yard and sixteen ounces to the pound. There are those who believe that the new Canadian Cabinet presents the strongest line-up since Confederation. It should, for the work on hand is the biggest job that Canada's political leaders have faced since the birth of the nation. Action is necessary. There is a feeling of unrest in the country which must be dispelled. Political favoritism, graft, patronage, inefficiency, and inaction, due largely to the devious methods of politicians who played politics on both sides of the House, must be replaced by straightforward, clean, efficient Government which gets things done. The Union Government takes the reins in strenuous times. If it brings Canada through gloriously to it be the credit, but it behooves all Canadians to be patient and each must do his part. A Government is generally very much like the people represented. Do not forget that. You are part of your Government. If Canada's business life is full of selfishness, graft and red tape, how can the Government be different? The House at Ottawa is being set in order. Partyism has been chased out, and, in sympathy with their parent, we hope that Graft, Political Pull, Red Tape, Inefficiency and Inaction have all gone along for good. Sir Robert Borden and his colleagues have chased the cause of all the trouble. Have you? There is an election coming. Be sure you are represented by a win-the-war candidate and, if you are a farmer, by a man who is big enough and knows enough of the farmer's problem and its relation to national problems to stand up for the rights of the common people and the man on the land. We have Union Government. The next reform asked is that constituencies are fairly represented. Let towns elect town men—lawyers, business men, etc., but let farming constituencies elect farmers. At any rate elect men who will oppose any advances of the privileged interests and who will back up the cabinet in straightforward government.

### Easy Work.

Under the attractive heading "Modern Machinery Puts Farm Work in Light Labor Class," and sub-headed, "Men Who Can Only Stand Easy Work Sent to Farms," a leading Ontario daily recently gave publicity to an interview with the head of the Government Employment Bureau in a Western Ontario city.

A young man applied at the Bureau, so the story goes, wishing to procure light labor owing to his inability to stand heavy work. He had a wife and family and had to get work immediately, but explained that his health was bad and he could only take on a light job. The quoted answer of the man in charge of the Bureau follows: "The farm is the place for you. It's all easy work now and the working day is only nine hours." After some persuasion, so the account reads, the Bureau man convinced the rather skeptical applicant that farming was an easy job and just the place for men looking for easy, remunerative and congenial work.

We are rather surprised that one so sure that farming was so absolutely devoid of hard labor even condescended to call it "work" at all. According to some of the reports handed out by officials in charge of labor bureaux and at the head of movements for placing men on farms, the farm is fast becoming a go-easy summer resort six months in the year, and a first-class health resort for the other six, with just enough exercise to maintain a good-sized appetite and keep the circulation from growing sluggish. Yes, modern machinery lightens labor; it does much of the work formerly done by hand, but there is still enough of real hard work in farming to keep it out of the "Light Labor Class." We know the hours of daylight grow shorter at this season of the year, but we do not see that this should

## The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

Published weekly by  
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.  
Agents for "The Farmer's Advocate and Home Journal,"  
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THE WILLIAM WELD COMPANY (Limited),  
London, Canada

similarly affect the memory of the head of a labor bureau branch. And, too, most farmers have a lantern which will stretch any day beyond the nine-hour mark. Anyway, if farm labor is so light, healthful, etc., why limit it to nine hours a day? For the delicate, such fall work as threshing, silo filling, filling manure, pulling mangels and turnips and rustling unruly steers to the stable to finally be tied by the neck are especially attractive. Oh no, the farm does not call for the sick and the maimed, but rather for the strong and the sane.

### Clean Sheep.

An announcement from the Veterinary Director-General, published in last week's issue, to the effect that under new regulations dipping sheep before they would be allowed to cross from Canada to the United States is no longer required. This will please Canadian sheepmen and will facilitate trade. Breeding stock in large numbers is sent across the line each year, and former regulations which made dipping necessary were looked upon as an unnecessary hardship by many Canadian breeders, who felt that Canadian flocks were clean and, with reasonable precautions, shipments from them would carry no infection to the United States flocks. The new order removes the necessity for dipping, but requires inspection. The United States buyer is safeguarded by having the sheep inspected by an Inspector of the Bureau of Animal Industry at port of entry after the sheep have been inspected by a Canadian Government veterinarian and are accompanied by a certificate that they are free from disease, and certifying that no contagious sheep disease has occurred in the district in sixty days. The owner must take an affidavit that the sheep shipped are the ones inspected by the Canadian authorities. Any sheep not inspected will be held at the border for fifteen days. This new order removes any stigma which might have existed in the minds of American sheepmen against Canadian sheep which are particularly clean, healthy and free from disease. This is a good move and those responsible for it deserve the thanks of the sheepmen who should do all in their power to aid the authorities in keeping down disease.

### "The Guid Auld Times."

BY SANDY FRASER.

As I wis sittin' by the fire the ither night readin' the paper, wha' walks in tae the house but auld Duncan McGreggor, a neighbor chap, an' a pretty guid hand at tellin' stories that he's heard in the auld land in his young days; or gin he hasna' heard them frae ithers he's made them up himsel', na doot.

"Weel Sandy," he says, after he had got his chair tilted up against the wall an' his pipe goin' pretty well, "I see ye're readin' the paper as usual. Is there ony-thing but war news in it the day, that ye've noticed?"

"Yes," I replied, "I see that Quebec city has gone dry by over three thousand of a majority. What dae ye think o' that for what that temperance speaker that wis here a few weeks back called 'the last stronghold o' the liquor party'?"

"Not sae bad, not sae bad," says Duncan, "I'm thinkin' that there ought tae be a rush tae enlist doon there noo, for I hear that it's not tae say ower dry on the ither side where they are daein' the fightin'. It will be a case noo o' choosin' between twa evils for some o' them. They're up against it, no mistake. But I'm thinkin' that the church must hae taken a hand in the business when they were able tae roll up sic' a majority as that. Na doot the priests an' the ministers were a' in the fight again, for they like tae be takin' a round oot o' the booze-sellers, if for naething mair than the fun o' the thing."

"Na doot," says I, "but what will they be daein' for themselves when ilka place gets that dry that ye'll hae to 'prime a man before he can spit,' as Billy Sunday says?"

"O, I'm thinkin' some of those chaps provide for the dry day as weel as for the wet one," replied Duncan. "It reminds me o' a chap I used tae ken afore I cam, tae this country," he went on, takin' his pipe out o' his mouth an' knockin' the ashes on to the floor, as he will aye be daein' when he has a story tae tell. "He wis quite a guid preacher in his way, but he wad be a' the time gaein' for the boys that were ower fond o' the bottle. One day he took for his text the verse that says, 'Look not upon the wine when it is red in the cup,' an' he preached a sermon that wad raise the vera hair on yer heid; tellin' about a' the bad effects o' whiskey an' such like drinks on not alane the body, but on the mind an' speerit as weel. There wis an auld cronie o' my ain in the congregation that I kenned wis bein' hit pretty hard by what the meenister wis sayin', an' after we were outside I went ower tae where he wis standin' an' says I tae him, 'Weel Johnnie, did ye hear that?' 'Did I hear it! Wha' didna' hear it? I ne'er winked an eye the hale sermon,' he replied, a wee bit hot like. 'Aweel an' what thought ye o' it?' says I. 'Indeed Duncan, I think he's been a lad in his day,' says Johnnie, 'or he couldna' hae kenned sae weel about it. Ah, he's been a slea hand, the meenister.'"

"I think," says I, gettin' up tae pit anither stick in the stove, "that I've heard ye mention that same Johnnie before. Johnnie Erskine, wis it no'? He wis no' vera slack wi' an answer, frae what I've heard ye say."

"Did I ever tell you," says Duncan, "about the time that same meenister wis g'ein Johnnie a private lecture on moderation? 'Tak' my advice,' cautions the meenister, 'an' never tak' mair than one glass at a time.' 'Neither I do,' says Johnnie, 'neither I do, sir. But I care unco little how short a time be atween the twa.'"

"I guess there's no denyin' that there wis some pretty guid drinkers in Scotland in the auld days," says I. "An' I've heard say that noo an' again some o' the women as weel as the men wad be takin' mair than wis juist guid for them."

"Ye can believe that a' right," replied Duncan. "I mind one time walkin' along the road near Edinburgh an' seein' an auld woman sittin' on the ground wi' her bundle lyin' in the mud beside her. When I cam' up tae her she says tae me, 'Oh, will ye help me up wi' my bundle?' 'I'd seen the auld lady a few times before, around the toon, sae I thought I'd scare her a wee bit an' mak' her think I wis the meenister, so I says tae her, 'My, my, Janet, how dae ye come tae be in sic' a state as this? Dae ye no' ken the place tae which all drinkers go?' 'Help me up wi' my bundle sir,' says she, 'an' I'll tell ye.' 'Weel, weel,' says I, 'I will. Noo answer my question.' 'Weel, tae tell you the truth, sir,' says she, 'they go just where the guid d'rap o' drink is tae be had.'"

"She made ye a pretty guid answer, Duncan," I said. "She might hae lost the use o' her legs but her wits were still in workin' condection. Did ye ever notice how active a chap's mind is when he's aboot half shot, as they say?"

"Sure," replied Duncan, "that reminds me o' one time I wis at a big dinner in Edinburgh that they were giving in honor o' some English duke or earl or something o' that kind, an', as ye may think, there wis no need for onybody present tae be thirsty gin onything but water would satisfy them. An' it wisna' lang before the English chap an' some o' the rest o' them as weel, were beginnin' tae feel pretty good and were startin' tae talk tae one anither frae the opposite ends o' the table. At last the English duke got up in his place an' says he, 'Gentlemen, I must inform you that when I get a little the worse of liquor I have an absurd custom of railing against the Scotch. I hope no gentleman in the company will take it amiss.' There happened tae be a Scotch officer sittin' at the far end o' the table he jumps right off, an' says he, wi'oot seemin' tae be in ony way displeas'd, 'Gentlemen, when I am a little the worse o' liquor, and I hear onybody railing against the Scotch, I have an absurd habit o' kicking him oot o'

the company. I hope no gentleman will tak' it amiss. But I needna' tell you Sandy," Duncan went on, "that it wisna' necessary for him tae exert ony o' his talent that night."

"Weel, Duncan," says I, "I'm afraid ye've been in some pretty fast company in yer young days, tae judge by some of the stories ye tell. It's a guid thing ye sobered doon in yer auld days or ye wad be in a bad way, wi' a' the country gaein' dry, as it is."

"Yes, Sandy," says Duncan, "between you an' me an' my auld wumman, I've pit in some nights in ma day. I'm nane the better for it, I ken that, but it gies ye somethin' tae be thinkin' aboot, the times ye will be gettin' dooncasted, wi' a' the wark an' worry there is on the farm these days. There's naething like bringin' back tae yer mind the guid auld times, that seem better than they were, maybe, tae mak' ye forget the troubles o' the present. But I see ye've let the fire gae oot, Sandy, sae I think I will juist be gettin' back hame again. I'll be ower again some night when I dinna' find my auld wumman as entertaining as usual."

### Nature's Diary.

A. B. KLUGH, M. A.

The last of the Warblers are now migrating and we bid farewell to these brilliant little birds until the call of spring shall once more bring them northward. This last species to migrate is the Myrtle Warbler, and the fall migration of this species extends over a considerable period—from early in September to late in October.

The Myrtle Warbler, like so many members of the Warbler Family, varies a good deal in plumage. In the case of the male in spring the prevailing color is bluish-slate, heavily streaked with black, the breast, sides and the sides of the head are black, and there are four conspicuous yellow spots,—one on the crown, one on the rump and one on each side of the breast. The plumage of the female in spring is similar in pattern to that of the male, but all the colors are much reduced in brilliance, the upper parts being tinged with brown, the yellow spots not so bright, and the black is not so pure, being tinged with gray and brown. In fall plumage the adults are both duller than in their respective spring plumages and the young are brownish above and whitish with brown streaks beneath and the yellow spots on the crown and sides of the breast are very faint, the only bright color being the spot on the rump.

This species has a wide range in Canada, being a common breeder in most parts of the Maritime Provinces and in the northern portions of Quebec, Ontario and Manitoba. It also breeds in Saskatchewan, Alberta and British Columbia, though in the latter province it is not as common as its near relative the Audubon's Warbler. Throughout Southern Ontario it is rare as a breeder, having been found in the summer only at Listowel by the late Mr. Kells, near Peterborough by Mr. Hughes-Samuel, and near Guelph and Mount Forest by the writer. The nest is placed in a tree, usually an evergreen, at a height of from five to ten feet from the ground. It is composed of twigs, rootlets and plant stems, and lined with grass, hair and feathers. The eggs are from three to five in number and are white, spotted with brownish-purple.

The Myrtle Warbler is very abundant during the spring migration, usually being associated in flocks with the Black and White, Black-throated Green and other of the earlier Warblers, and being first seen about April 27th in Southern Ontario.

This bird feeds by gleaning insects from the bark, twigs and leaves of the trees and also by capturing insects in the air after the manner of a Flycatcher. Its food in spring and summer consists mainly of small beetles, weevils, ants, and plant-lice and scale-insects. During the fall migration it feeds on insects and also on some wild fruits, being partial to the fruits of the poison-ivy. In fall and winter in the Atlantic States it feeds mainly on the fruits of the wax myrtle or bayberry, and it is from this habit that the name of the species is derived.

The winter range of the Myrtle Warbler is from the middle States southward to the West Indies and Central America.

The harvest-time of the chestnuts is at hand and as we gather the polished nuts which have fallen we think of Thoreau's fine description of this fruit "What a perfect chest the chestnut is packed in! With such wonderful care nature has secluded and defended these nuts as if they were her most precious fruits, while diamonds are left to take care of themselves. First it bristles all over with sharp green prickles, some nearly half an inch long, like a hedgehog rolled into a ball; these rest on a thick, bark-like rind one-sixteenth to one-eighth of an inch in thickness, which again is most daintily lined with a kind of silvery fur or velvet plush one-sixteenth of an inch thick, even rising into a ridge between the nuts, like the lining of a casket in which the most precious commodities are kept. At last frost comes to unlock the chest; it alone holds the true key; and then nature drops to the ground a "done" nut, prepared to begin a chestnut's course again."

The chestnut is a tree whose range only just extends into Canada, and it is only in Southwestern Ontario that we find it, in fact, a tree south of Puslinch Lake in the extreme Southwestern corner of Wellington County is the most northerly one that I know of, and if any reader knows of the occurrence of this species further north than this I should be glad to hear of it.

Insect music is now nearly stilled, those grasshoppers and Katydid which are yet to be heard are singing very, very slowly, in a very different tempo to that they employed in the grilling, glaring days of August. They seem to say "Zee-Its—a-cold,—cold,

—world,—I'm—so—cold—I'm—going—to—sleep—  
Zee—e—e—e—e— and with a last long-drawn Z—e—e  
they soon will pass into their long sleep.

## THE HORSE.

### Diseases of the Respiratory Organs—VIII.

#### Nasal Gleet.

The skull of the horse contains air cavities which communicate with the nasal chambers by small openings. These air cavities are called sinuses. Under normal conditions they are filled with air which is admitted from the nasal chambers through the openings mentioned. On each side of the face are four sinuses, two quite small, and two large cavities, called the frontal and the maxillary sinuses. The former is situated above and communicates by an opening with the maxillary sinus, which is situated below the eye and communicates with the nasal chamber. The sinuses of each side communicate with each other, but there is no communication of the sinuses of one side with those of the other.

In catarrhal affections, the lining membrane of these sinuses, by extension of the inflammation of the mucous membrane of the nasal chambers may become diseased, and pour out a quantity of pus, which lodging in the various compartments of the sinuses, becomes a source of irritation constituting a diseased condition known as "nasal gleet". A collection of pus or tumors in the sinuses, if exit be not allowed, may cause absorption of the bony walls by reason of pressure. While catarrh is the usual cause of nasal gleet, it may arise from other causes, as external injuries, decay of one or more of the fangs of the upper molar teeth, abscesses or enlargement of the fangs of the teeth, disease of the bones of the face, etc.

**Symptoms.**—In most cases there is an irregular discharge of pus from one or both nostrils, usually but one, indicating that the sinuses of that side of the head only are affected. From some cause not understood, the affection is more often noticed in the left side than in the right. As stated, the discharge is usually irregular. A variable length of time may elapse when no discharge takes place, followed by a copious discharge for a variable period, this again followed by an absence of discharge for a variable period, etc. The discharge also varies much in quantity, according to the nature of the malady, the duration of the disease, and the structures that are involved. The glands on the inside of the arms of the lower jaw (called the sub-maxillary glands) are usually enlarged and hardened but loose, but in some cases adhered to the bone. The patient in most cases, especially in the early stages, does not appear to suffer much inconvenience, while in other cases he appears to lack his usual spirit or vitality; the eye of the affected side may look dim, the upper lid may droop a little, and the hair over the affected part may look rough. The breath from the side affected, and also the discharge, may be offensive, indicating that the disease is due to a decaying tooth, or disease of bone. Mastication may be painful and imperfect, which, of course, is practically direct evidence that one or more of the teeth are diseased. If the malady is of long standing, and the sinuses full of matter, there will in most cases be noticed a more or less well-marked enlargement of the face over the affected part. In any case where the sinuses, or a division of them are filled with pus, whether or not there be a bulging of their walls, tapping upon the surface will cause a dull sound to be emitted, and by comparing the sound of the side affected with that of the healthy side, or if both sides be involved, with that of a healthy horse, a distinction can be drawn that will be of material assistance in making a correct diagnosis.

**Treatment.**—If the breath or the discharge be foetid, the cause which is usually a decaying tooth, should be carefully looked for, and if possible removed. If a tooth, it must be extracted. If the root be largely decayed it may be extracted by the use of an ordinary large tooth forceps or a pair of large pincers, but the extraction of a molar, except in the condition stated is usually an operation that cannot be performed by other than an expert, with forceps especially designed for the purpose. Where the cause of the trouble is a tooth, its extraction is practically all the treatment that is required, unless the patient has become weak and poor, in which cases it is good practice to give tonics, as one dram each of powdered sulphate of iron, gentian, and nux vomica, three times daily, and feed well. It is also well to examine the mouth every day or two and remove any masticated food may that have become insinuated in the cavity from which the tooth was removed. This cavity soon fills and as the cause of the trouble has been removed, the animal will soon recover his normal health. If there be a bulging of the bones of the face, a dull sound on percussion, or a foetid odor, when the teeth are not diseased, an operation called trephining will have to be performed. This consists in boring a hole through the outer walls of the sinus and removing the pus. It should not be attempted, except by a veterinarian. Where none of these serious conditions are indicated, and the general health of the animal is not materially interfered with, the administration of mineral tonics will usually effect a cure. For this purpose one dram each of sulphate of iron and sulphate of copper three times daily, either in damp food or as a bolus after each meal usually give good results. Both drugs are tonics and the latter has a special action in checking mucous discharges, especially of the sinuses of the head, hence may be considered a specific for nasal

gleet. During treatment the patient should be fed on laxative food, as the treatment tends to constipation of the bowels. If the evacuations indicate that constipation is threatened, a pint of raw linseed oil should be given. Feeding a reasonable supply of bran, linseed meal, grass, if in season, and raw roots will in most cases prevent trouble of this kind. Where no operation is necessary, and the patient has not become weakened, he can perform his usual work during treatment.

WHIP.

then rub sulphur into the hair and skin till thoroughly dry. Then apply a good astringent dusting powder three times daily. You can get it from your veterinarian but, mark you, good care is the key to success in treating scratches, and it is not advisable to start this treatment till you are through putting the horse in the mud, and you must be careful to keep him well bedded with fine straw after poulticing so as to keep the feather dry, and do not allow him out in the cold for a few days.

Oxford Co., Ont.

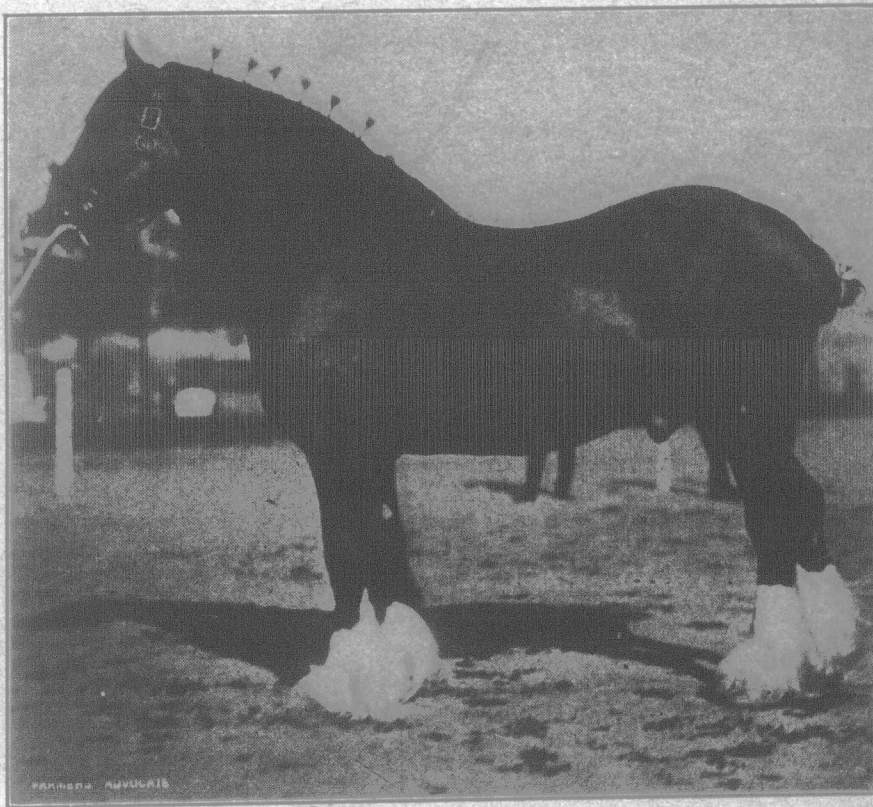
G. P. M.

### Shire Foal Shows.

EDITOR "THE FARMER'S ADVOCATE":

Shire foal shows are all that are left us at the moment in the way of exhibitions, although our farm girls are getting plenty of "display" tournaments for prizes, which they are revelling in and do their work well. Just at the time of writing, 1917 Shire foals are being exhibited and sold, and one bred by J. C. Williams at Tring, close to the old Rothschild stud has made 530 guineas at Peterborough. In the same city of Peterborough which is in the Fenlands, where they grow Shires as California raises peaches, there has just been held a fine show of tenant farmers' Shire foals, and F. Farnsworth & Sons won the challenge cup with a filly out of their first-prize mare, Brockhall Primrose, which was good enough to win her class despite her 13 years. Her filly foal was by Friar Tuck IV, a stallion sold at the Rothschild dispersal. The colt-foal class was led by A. H. Clark's brown colt foal by King Cole VII, out of Moulton Victor's Duchess, and a winner at Spalding show. This colt's sire was a great horse—he cost 750 guineas as a foal—but as he was being led to a show last year he bolted and jumped into a flooded river and was drowned before he could be reached.

ALBION.



Alert.

First-prize aged stallion at London for Graham Bros., Claremont, Ont.

### Preparing Horses for Winter.

EDITOR "THE FARMER'S ADVOCATE":

The season for working farm horses is drawing near to a close and many of the heavy horses will have a long period of enforced idleness during the late fall and winter months. It is surprising how many farmers fail to use reasonable precaution to prepare the horse for winter. One can easily imagine horses giving the usual trouble, as lymphangitis, azaturia, scratches, malanders, salanders, etc., if something is not done to prepare the system for such a change, and the most sensible and effective way to do this is to have your local veterinary surgeon examine the horses' teeth; if any need attention he will attend to them. Then have him give the horse a purgative ball, which he keeps always on hand, and make up a tonic to be given as directed by him. This will cost you about \$2.00. Try it on your team this fall and see if you ever expended money that you got better returns from. You will save it many times over before next spring in feed, to say nothing about having the team in good condition and possibly the saving of several trips by the same veterinarian to treat the horses for any one of the disorders which are so common to the heavy breeds in the fall when out of condition.

You may find some of the hairy-legged horses have already got cracked heels; this will need some extra treatment. After the purgative has acted, wash the scratches out with some warm, soft water and fine soap and enough carbolic acid added to the water to make a three-per-cent. solution. Be careful to remove all the waxy material from around the cracks. After you have it washed perfectly clean, apply a bran poultice, into which two teaspoonfuls of creolin has been stirred and have the poultice as hot as the patient can bear. Change every two hours till six have been applied,

## LIVE STOCK.

### Some Sheep Sales in Britain.

The September sheep sales in England and Scotland manifested a keen demand for breeding stock and the willingness of breeders to pay good prices for anything that suited them. Some individual prices were high and the averages throughout were of a very satisfactory character.

Shropshires at Montford, the flock of the late T. S. Minton, averaged \$52.98 for three hundred and ninety-one sheep. Thirty-nine rams averaged \$85.42, seventy-three shearing ewes averaged \$79.80, twenty-seven two-shear ewes averaged \$73.52, ninety stock ewes averaged \$44.06, eighty-five ewe lambs averaged \$36.28, and seventy-seven ram lambs averaged \$31.74. One buyer, acting in behalf of clients in the United States, paid fifty guineas, or \$255.50 our currency, for the two-shear ram, Montford Earl. Montford Ensign went to the same bidder at \$204.40, as did other lots at 22 guineas down to 18 guineas (a guinea being equivalent to \$5.11). F. A. Clark, of New York, took eleven pens of shearing ewes (five in a pen) at prices ranging from \$86.87 to \$102.20 each per ewe.

Leicesters predominated at the Driffield Ram Fair where George Harrison, of Gainford Hall, received \$1,122.66 for seven shearing rams, or the record average of \$160.38. The top of the sale was \$224.84, which was also made on one of Mr. Harrison's offerings. John Cranswick sold eight rams at an average of \$122.78, and F. F. Jordon offered forty Leicesters which realized the splendid average of \$39.16. Two other lots of thirty-six and twenty-five averaged \$74.50, and \$72.30, respectively. Lincoln flocks at the same event averaged between \$42.02 and \$70.14 per animal.

Romneys have been making remarkable averages in the Old Country and some have come to Canada at quite high values. The Otham flock was dispersed in its entirety and the result was a record sale for the breed. One hundred and twelve yearling ewes averaged \$58.68; fifty-six one-lamb ewes averaged \$62.68; ninety-eight two-lamb ewes averaged \$54.45; forty-six three-lamb ewes

averaged \$36.74; seventy-seven flock ewes averaged \$28.20, and one hundred and fourteen ewe lambs averaged \$24.44. The averages on the ram offering were quite as good, returning a total average for the sale of \$44.64 on six hundred and eight head.

### The Scottish Ram Sales.

During September the Kelso, Ayr, Howick, and Glasgow ram sales were held. At Kelso, 2,665 sheep were disposed of. Some thirteen firms of auctioneers were engaged in selling the sheep, which were allotted to different rings. Border Leicesters occupied three rings, and it was in the third where the best prices were realized. Twenty-eight consignors passed sheep through this ring and all contributed between 5 and 25 in each consignment. Sixteen consignments in this ring averaged over \$97.20, seven averaged between \$72.90 and \$97.20; five consignors averaged between \$48.60 and \$72.90. The highest priced individual was a shearing brought forward by D. P. Elliot, from Nisbet Hill. He realized \$1,166.40. Still another sheep brought \$1,117.80. The highest average made by one consigner in this ring was \$221.76, realized on an offering of twenty-five head. Another consignment of twenty averaged \$204.36.

The highest price paid for an Oxford at Kelso was \$534.60, and the highest average made by any one consigner was \$116.64. Four lots averaged over \$97.20; twenty-three averaged between \$48.60 and \$97.20; thirty-two averaged less than \$48.60, but only two of these were below \$24.30.

The highest price for a Suffolk-Down at Kelso was \$174.96. Eleven consignments averaged between \$48.60 and \$97.20. Seventeen consignments averaged between \$24.30 and \$48.60; six consignments averaged below \$24.30.

At the Ayr sale of Border Leicesters the highest

individual valuation placed was \$189.54, and the highest average was \$75.42.

The translation of pounds, shillings and pence into our currency accounts for cents being mentioned in the range of averages.

### How Wool Grows.

Since the time when the microscope was invented, many things have been made visible which had hitherto remained hidden from man's gaze. There is no substance of which this can be said more truly than of wool. It is true that the microscope was not needed to tell the quality of wool; that could be seen by the eye of a practical man. Before the microscope was used it was thought that wool fibres had about them some peculiar feature which helped them to hold together. This assumption has, by placing wool under the microscope, been shown to be an actual fact. By microscopic examination the wool fibres may be so enlarged as to show quite clearly that they are serrated. Every mark on the surface and every feature of a cross-section can be clearly seen.

In order to explain the nature of the wool fibre and the manner of its growth it is necessary to study the skin. The skin of the sheep, like that of human beings, is made up of four layers. These are composed of a vast number of cells, which are not visible to the naked eye, and are pierced by three glands. The first of these glands is the sweat gland which carries off the waste matter of the body. The second is the sebaceous gland, which does not go through the skin, but terminates in the hair gland. Through this gland flows the suint or wool yolk, the purpose of which is to help the wool fibre to force its way through the skin. The third gland is called the hair follicle and deserves to be specially noted. The most natural idea which, owing to the remarkably small dimensions of the glands we are considering, may develop in our minds, is that the hair or wool is something which is being prepared under the skin, and that after preparation it has only to force its way to the surface. This notion is altogether erroneous. The hair follicle is really a depression in the skin, as shown in Fig. 1.

It is well known that the human skin is constantly shedding off old dead tissue in the form of cells, and replacing them by new ones. An exactly similar process is always going on on the sheep, but owing to the great number of hair follicles the skin also produces a complete covering of fibres.

#### The Hair Follicle.

The shape of the hair follicle should be specially noted, for it is upon this that the development of the fibre depends. Down in this minute recess there is none of that friction which carries away all the dead cells which are thrown off on the surface. Moreover, the warmth of the follicle prevents them from losing their vitality as soon as they become detached, yet the throwing off process is in constant operation, so that the follicle is kept constantly packed with detached cells which are slowly working their way towards the opening at the top. The reader will see that the follicle is much narrower at the opening than at the bottom. The result of this is that, as the cells which have become detached are being forced upwards by those which are succeeding them they become more closely pressed together, and finally emerge through the mouth of the follicle in the form of a wool fibre.

#### Serrations of the Fibre.

One of the most interesting features of the wool fibre is its serrations. Even quite recently their presence has been denied by some who claim to be authorities on wool. This is very surprising, because the microscope reveals to us, with a clearness which admits of no denial, that these serrations actually exist. These serrations are formed in the following remarkable way. We have seen that the fibre consists of cells which have become detached from the skin, and which have been forced to the surface. The pressure of the atmosphere upon the cells which have just made their way to the outside, causes them to shrink. The cells which follow form a kind of bed for those that have gone before, and in that way protect their lower surface. This process continues contemporaneously with the throwing off of cells within the follicle, and the result of this twofold operation is the production of the fleece. It may be pointed out that there is one point or serration for every cell which lies on the surface of the fibre.

The wool fibres, as has already been shown, are made up of closely condensed cells. The action of the atmosphere upon them does not destroy their individuality, or make it impossible to distinguish between two distinct cells. Though shrunken, every cell remains, and if placed under suitable conditions may go back to their original nature. The substance of the cells is horn-like, and because of this can be dissolved. These two points should be carefully noted, because they have a most important connection with the washing of the wool after it has been shorn, and also upon its felting properties.

In a single transverse section of hair no less than 1,500 cells may be seen. Also, when looking at the fibre in this way, three distinct parts are visible, as shown in Fig. 2.

It will be seen that the two other layers of cells have lost their circular shape. Owing to the pressure which has been brought to bear upon them, the cells in the outermost layer have become elongated, and the second layer contains angular-shaped cells. The flat shape of the outer cells is the cause of the prominent undulating lines which appear on the outer surface of the fibre. The central cells which form the medulla

of hair are not so heavily pressed as the other cells, and therefore retain their circular shape. By counting a small portion of a cross-section of hair, the number of cells contained therein has been found to be 1,500. If we assume that the average length of each cell is one four-hundredth part of an inch, we find that there are no less than 600,000 cells in one inch of fibre.

#### Hair Versus Wool.

In passing, we may make a few remarks upon the distinction between wool and hair. True wool contains no medulla, and if we were to take a number of fibres, cut them transversely, and place them under the microscope, we should be able to distinguish the wool from the fibre by this means alone. The proper way, however, to distinguish between the two kinds of fibre is to note the difference between their outward appearance.

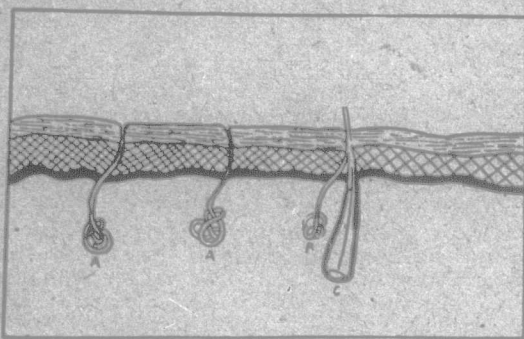


Fig. 1—A, sweat gland; B, sebaceous gland; C, hair follicle.

The outer layer of cells on a hair fibre lie flat upon the inner cells, and thus give to it a smooth appearance; but the scales on the wool fibre stand out prominently, thus making the surface appear like the edge of a saw. Fig. 3 shows the difference between wool fibre and hair fibre.

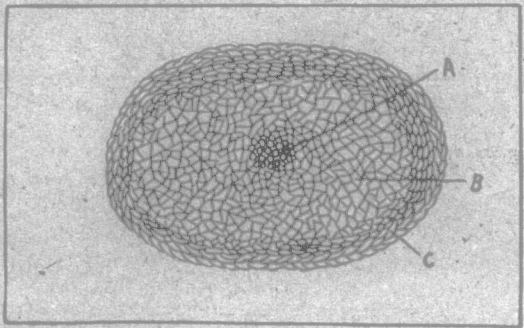


Fig. 2—A, medulla; B, cortex; C, cuticle.

#### Points for Growers.

Perhaps some reader will ask, "What is the bearing of all this upon the practical side of wool production?" Growers generally are not interested in technical terms and scientific explanations; indeed they often show a strong dislike for them. Yet the ordinary details

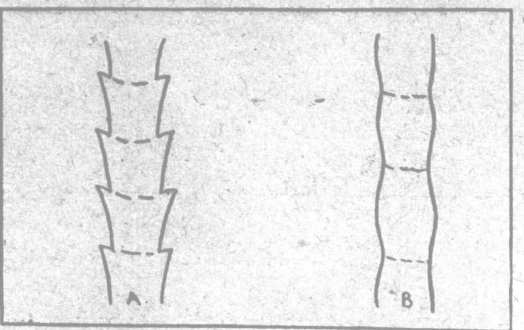


Fig. 3—A, wool fibre; B, hair fibre.

of the sheepmaster's life are most closely connected with the technicalities of the wool trade. This is a fact which ought never to be overlooked, and if wool-growers generally could be brought to realize the importance of it, a long stride would be taken towards bringing about a better understanding and a more amicable feeling between the man who grows the wool and those who convert it into the finished article. We know that the understanding of which we speak has not yet been arrived at. The wool-grower is too prone to think that his interest and the interest of the man who buys his wool are entirely at variance. The result often is that too little care is taken with the wool even at shearing time. The interest then shown reveals itself chiefly in a desire to secure the highest possible price, and to get the wool into the market as quickly as possible if that price appears satisfactory. If the price does not please the would-be seller, the wool is sometimes foolishly held over, stored in a room, and kept until prices sink lower still. That was the rule in some pre-war years.

Surely this is a great mistake. The object of this article is to impress upon wool-growers the importance of their wool, and to take a deeper interest in the same. By so doing they will not only confer a great boon upon manufacturers, but their own interests will be advanced. By studying the way in which wool grows, by observing the wonderful organism which has been created to promote its growth, and by remembering the great variety of purposes for which the shorn fleeces are used it will be seen that the subject of wool-growing is well worth considering.

To wool-growers we say, study your sheep and study

their fleeces. Remember that soil, food, and climate are all important factors which either help or hinder the production of good wool.—S. B. HOLLINGS, in the Live Stock Journal Almanac.

### Canadian Store Cattle Considered in England.

Recently an announcement was made in Britain in regard to a conference Mr. Prothero, the British Minister of Agriculture, had with Canadian representatives last April. At that time the argument of the Canadian stockmen was presented and the Imperial Government was asked to permit our live cattle, as well as dead, to be imported. An Act in 1896, aimed to protect British stocks from disease, prohibited the importation of live cattle, except for slaughter at the port of landing, and this stigma has been over Canadian cattle ever since in spite of the fact that no country in the world enjoys any greater freedom from contagious diseases among its herds. A well organized appeal was made last winter and carried overseas. In reply Mr. Prothero said: "The home demand for store cattle in the Eastern Counties has been rather imperfectly met for many years past. On the other hand, there has been a considerable increase in breeding in this country; but if we have, what I think we shall have, a large extension of the arable farming in this country, we shall want to increase our reservoir of store cattle. Of course, your Canadian cattle will come over as what we call 'stores'; that is to say, they are to be fed and fattened here in England." A motion was also accepted by Mr. Prothero to the effect that the embargo on Canadian cattle should be removed as speedily as possible.

It has long been known that Ireland, which supplies England with a large number of unfinished cattle, was a strong supporter of the Act, but apparently the Scottish farmers have not looked unfavorably upon it. Editorially, "The Scottish Farmer," published in Glasgow, says: "This is undoubtedly a back-door victory for the wharlowers, and those farmers who have been clamoring for the importation of Canadian stores all these years. We are hardly inclined to believe that the Canadians would make it a condition of their adherence to the cause of the Mother Country that we should receive her store cattle 'as speedily as possible.' Why then has the Minister of Agriculture made such a complete departure from the policy of his predecessors without consulting the breeders of pedigree stock in Britain? Contagious disease may not have been known in the Dominion in recent years, but there has been a good deal of it on the American continent and this is not a time to take any risks in the matter. Scotland has been entirely free from disease for many years, and as we have the finest cattle in the world it is only reasonable that we should desire to protect them from the ravages of such a scourge. It will be the duty of breeders here to acquaint Mr. Prothero of their views before he can make complete the fulfilment of his capitulation to the advocates of the importation of Canadian store cattle. An opportunity for taking such action as is necessary will be afforded during the 'Shorthorn week' in Scotland next month."

Shipping unfinished cattle overseas does not appeal to all as an act of wisdom on the part of the Canadian farmer. However, they appreciate having the stigma removed which has for long years been hanging over our herds and flocks, and it opens one more door to any surpluses we may have in that line.

### Fall Sales of Live Stock Begin in U. S. A.

The opening fall sales of live stock in the United States indicate a keen demand for pedigreed cattle and a continuation of the confidence that live stock breeders have exhibited during the last two years. So long as the dressed carcass commands the price it does there is not likely to be any decrease of enthusiasm or in prices in the pure-bred department of the industry.

At the Good-Wilson sale held at Grandview, Mo., on October 1, 77 head of Herefords realized the splendid average of \$638. The females were mostly in pasture condition, but 56 averaged \$648. One cow, Crocus 5th, went for \$2,500, and another, Celeste, brought \$2,025. The 21 bulls averaged \$610. The highest price for a male was \$2,100, paid for Blendwell, a son of Beau Delaware.

Fifty-six Herefords averaged \$910 at a sale held in connection with the American Royal Live Stock Show at Kansas City, on October 5. Thirty-four bulls made the average of \$906, and 22 females fetched the equivalent of \$918 each. The top was \$3,000 paid for Gay Lad Jr., which won in the senior-yearling class of the Show.

J. O. Southard, Comiskey, Kans., sold 116 Herefords on October 6, for \$69,790, or an average of \$601.63. Ninety-two females were appraised at \$612, and 24 bulls at \$560. Belle Fairfax and bull calf topped the sale at \$2,725. Eleven of the best bulls, considered high-class herd-headers, averaged \$1,050.

On October 2, the Shorthorn herd belonging to the estate of the late Philip Erbes, La Moille, Ill., was dispersed and the 38 head offered averaged \$302.

The second sale of the Ft. Wayne District Shorthorn Breeders' Association held at Hometown, Ind., on October 3, resulted in an average of \$227 for 76 head.

An average of \$286 was realized on 40 Shorthorns sold at public auction by W. C. McGavock at Mt. Pulaski, Ill., on October 3. Many of the offerings were not in high flesh and sold at moderate prices.



# THE FARM.

## Some Thoughts on Production.

EDITOR "THE FARMER'S ADVOCATE":

If the question were asked as to whether we have done our best for production in the season now closing, I think as farmers we would truthfully say that we have. As a people in general I think we have not accomplished all that we might have done. With the farmers it has certainly been a continuous performance since the first work done in the spring. With the shortage of help and the increased production on many farms there has certainly been no idle bread eaten on Canadian farms this summer. It is simply wonderful the amount of work turned off by some men during the season's operations. We know of one man on a seventy-acre farm who, besides sowing and harvesting his crop, has put in about ten acres of fall wheat, done a good share of the work of putting a 12-inch tile drain across his place, besides doing fencing and making many other improvements. Another man with his twelve-year-old son has run a 150-acre dairy farm with a herd of some 25 cows, while just beyond is another 200-acre farm run by an elderly man and his son. The latter tells me he has not taken a holiday for years. A few hours more rest on Sunday, with from six to eight hours for sleep—the rest of the time keeping busy in the "second line of trenches" has been the experience of Canadian farmers in this year of grace, 1917. The work in many cases has been too hard, the hours too long, with little or no time for the cultivation of those graces without which our lives must be incomplete, yet we have done the tasks willingly, not merely for financial gain but for the cause of liberty and righteousness that we all have at heart.

We wonder if the city dwellers, who purchase their produce and are often very much inclined to find fault and criticize if the stuff offered for sale is not of the highest quality, realize the labor and time expended by gardeners and vegetable growers in producing in abundance such a variety of garden truck which by its wholesomeness and cheapness helps materially to keep down the cost of living. It is certainly no snap being a market gardener and if there is anyone more than another who earns his bread by the sweat of his brow, it is the fellow who bends his back over the long rows of celery and carrots and onions, receiving little enough indeed for all the labor expended.

As already stated we think the tillers of the soil have done their very best for production, but what about that class still very numerous whose only desire in life seems to be for pleasure and amusement, and whose aim seems to be to have a general good time at the other fellow's expense?

The writer's farm is situated between a main road running through the heart of Western Ontario, and a well known river. On that road auto drivers speed along every few minutes of the day and throughout the night as well. Some are on business we know; some combine business and pleasure, but the majority are simply pleasure seekers. They toil not, neither do they spin, except to spin along the highway at express-train speed, endangering the lives of all who pass that way. When the weather is not pleasant there are few cars to be seen, which is evidence enough that the occupants are solely out for pleasure. Along the river banks the fishermen gather on sunny days in as large numbers as they did three years ago. We don't object to recreation—that is necessary, but we do protest against the waste of time and money that we here see revealed at a time when increased production is the crying need. Compulsory service, we are thankful to know, will put many where they may produce good results, if not good crops. If the money spent in expensive autos and which in a large measure finds its way into the pockets of wealthy manufacturers was spent in reclaiming waste land, and in agricultural pursuits in general, the whole community would benefit thereby.

As a people we are not yet producing from the soil to our full capacity and it is due to shirkers who, whether possessed of private means or not, will not get down to honest toil, to misdirected capital and to governments not as representative as they should be of the farming community. The coming year, if the war continues as it undoubtedly will, will witness a greater need for farm products than ever, and it is well to take a forecast of the available man power for the work in hand. We do not know how far the Military Service Act will have gone in obtaining men for service overseas, but we do know that in the villages and towns and cities of Canada are thousands of middle-aged men with a practical knowledge of farming, who if the right measures are adopted would be available for work on the land in this perhaps the most critical period of the great struggle.

Much as we need and will need the foodstuffs that the farm can produce, our finest productions and most necessary after all are not sheep and hogs and cattle, or corn and wheat, but men. Someone has asked the question, "What is the old farm good for if not for the rearing of men?" At this time when there is such a terrible wastage of man power in our land there is need for the babies as never before. We don't want the wastage made good as Germany seeks to do it by putting a premium on illegitimacy, but through parents whose children shall have a good start physically and morally. It is to be regretted that there are so many childless couples and so many who do not marry because of selfish reasons. We need more of the "Canadian born" and a greatly increased birthrate, even if it must be at the cost of sacrifice and suffering. As I write at this midnight hour there lies asleep close at hand my little son, a happy healthy boy of seventeen months. Another one younger

still lies sleeping by his mother. During their waking hours they certainly require much care and attention, but what of that? We are glad that in one home at least there are young lives coming on that shall make good in a measure, we trust, the loss and wastage of this cruel war.

Just a word about the production of next year on our fifty-acre farm. A meadow that was top-dressed with manure this spring and which produced a fine crop is sown to fall wheat. Another three acres of meadow will be manured for corn and plowed in the spring. A piece of ground that had a crop of corn, beans and potatoes will be plowed this fall and next year put in to oats and barley and seeded down with clover and alfalfa. A piece of ground now seeded with clover will be given

## Impressions of the Canadian West.

BY AN ONTARIO FARMER.

Having spent the past month on the Prairie grain-growing section of the Canadian West, perhaps these notes may be of interest to your readers. I might say to begin with that my observations are what I have actually seen, and not taken from any reports, second hand (so to speak.)

First, the crop situation. In the Eastern part of Manitoba we found the wheat and oat crops normal. This section seems to have had some rains during the growing season, but from Yorkton west the season has been very dry and the crops were very short and also thin on the ground.

Wheat was nearly all harvested and, in Saskatchewan, threshed by the first week of October.

In some few cases wheat sown on summer fallow yielded as high as 20 bushels, but the average will be from 6 to 10 bushels to the acre. The quality in Saskatchewan and Eastern Alberta is uniformly good, grading No. 2 from the thresher, and with the price ruling around \$2.00 the Western farmer is receiving good returns for his crop. In this wheat there are a lot of screenings which are in all cases cleaned by the elevator company and will be ground and sold for feed. This will be largely needed in the West. It consists of small wheat and fowl seeds, wheat and buckwheat 96 per cent., 4 per cent. wild oats, and other fowl seeds, and is selling at \$25 per ton at Saskatoon; another sample is quoted at \$1.90 f.o.b., Toronto. The oat crop was also very short and

will be mostly required in the West this year. A great quantity of the oats will be fed in the sheaf, as they were quite green when cut. Under these circumstances the Ontario farmer will get little cheap feed from the West this year. Oats are now selling at Saskatoon for 56 cents, and at Edmonton for 55 cents per bushel. The Edmonton district seems to have been favored this year with more rain than any other district we visited, and crops are much heavier and the straw longer; in fact, we saw some fields of oats that will yield from 50 to 60 bushels, but as this is a mixed farming district nearly all will be required for home use, and wheat is not very extensively grown and will also be used for local use. So very little will be shipped East. We wish to warn Ontario farmers about the use of the screenings from the West this year, as, owing to the short crop, all kinds of noxious weeds are abundant and even when ground many small seeds will still grow.

With regard to our impressions of the prairies. The weather has been ideal ever since we reached the West. In fact, many days were hot, and to-day quite warm enough for August in Ontario. The West is a great country for the young man, especially from Ontario, who wishes to farm. Land can be purchased in Saskatchewan and Alberta for from \$10 to \$20 per acre, with some improvements, and there no doubt will be a tremendous rush of emigration after the war and we think the present a splendid time to locate—as no doubt

prices will rise. There is a scarcity of men all through the West, owing to the strain of the war, and wages have been higher all through the harvest than was ever known. In the Saskatoon district \$5 per day was the wage for a man, and \$8 for a man and team. In Alberta wages are somewhat lower, \$3.50 being the ruling price. There is any quantity of good mixed farming land in the Edmonton district for sale at reasonable prices, and this district seems to have a better crop this season than any other that I have visited. A large portion of the Western farms are worked on a share rental system—one-third of the crop to owner and two-thirds to the renter, he finding everything.

E. T. CAVERHILL.

Meat animals, the world over, are in short supply. A good future for the live-stock breeder, in a position to increase his herd or flock, is assured.

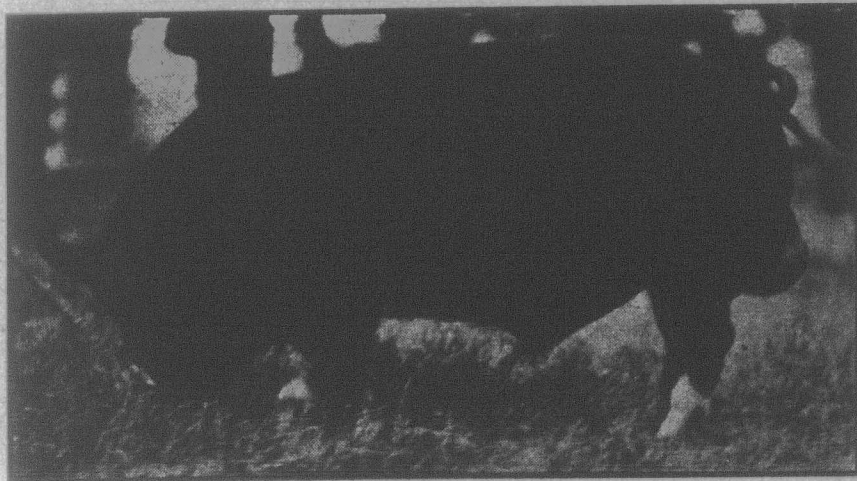


High Ideal.

First-prize junior yearling Hereford bull and junior champion at Toronto and London. Exhibited by W. H. & J. S. Hunter, Orangeville, Ont.

a light coat of manure this winter and next spring made ready for potatoes. An acre of new ground will also be put in to potatoes. A meadow which did not yield a very big crop this summer will be top-dressed with manure. A stubble field that has been disked to kill thistles will be plowed along with some adjoining corn and turnip ground. This will be sown to oats in the spring and seeded with timothy and clover.

I like to have my plans laid for the coming year. If I am not called to the colors I will still work on in "the second line of trenches." The pleasure seekers may whirl by in their private locomotives, glad perhaps that the lines have fallen to them in pleasant places, as they watch the old fellow in the dirty overalls feeding swine or milking cows, or plugging along between the



A Young Berkshire.

First-prize Berkshire boar under 12 months at London, 1917, for Adam Thompson, Stratford. Imported from the herd of W. S. Cora, Whitehall, Ill.

plow handles, but I won't care. If I can make two blades of grass grow where only one grew before, I will be happy. If I can produce a little more stuff this coming year than I did this season, though again I work long hours and take few holidays, I will consider it worth while. This is my resolve—I will do my best for production; I will be one of the "prods."

Middlesex Co., Ont. MORLEY L. SWART.

In a letter recently received from the Acting Live Stock Commissioner, he makes the statement that after investigation he is "more than proud of the judgment and shrewd common sense that is being displayed throughout the country generally in connection with feeding and breeding of live stock." Would that city critics of the farmer could all see this statement from a man who knows what he is talking about.

**Thanksgiving and Production.**

EDITOR "THE FARMER'S ADVOCATE":

Yesterday passed as Thanksgiving Day. Many hundreds of farmers were thankful beyond measure for the dry, but cool day we had. These early frosts and recent rains are driving us all to desperation in order to harvest our later crops. What is the answer to all the delayed work on the farms? Everywhere comes

the answer "short of help." Having on the day named to trail a Shorthorn heifer a distance of eight miles, it was the writer's privilege to be on the road. What were his observations from the nearest neighbor to the town of Bowmanville? Men, women and children in the fields, at the silo, buckwheat, mangels, potatoes, etc., but not a man to keep the plow going, which is so sorely needed. Upon reaching the town it was necessary to call the bank manager from a big dinner, and I could not even buy a pair of sheep-skin gloves to keep

my hands from stinging. The blinds were drawn everywhere, but in the country the wood-lots were lined with autos and livery rigs galore. It was a case of toiling in the front lot and sporting in the back lot. To-day those same individuals are sending out S. O. S. calls to produce and to be patriotic. This doubtless applies to every city, town and hamlet, including "Toronto the Good".

Ontario Co., Ont.

W. T. B.

**Canada's Young Farmers and Future Leaders.****Use Your Head.**

There are many boys and men struggling on from day to day, taxing their physical strength to the limit, but yet failing to get ahead financially. They attribute their failure to "hard luck" and appear to be resigned to their lot of being "hewers of wood and drawers of water". Some are working too hard with their hands and not hard enough with their heads. The successful men in every line are those who planned, thought, studied, etc., from the time they were boys. The more they thought over their work the more the opportunities for advancement which appeared to open before them and so they went on and on up the ladder of achievement, leaving less energetic schoolmates behind. Now get rid of that idea that there is no place for the use of brains on the farm. There is no occupation that calls for as much real sound judgment and planning or use of brains as farming. A person must use his head to get ahead, and must keep on using it to stay ahead. No doubt you have seen men who appeared to do their chores much easier and more quickly than others; watch them for a while and you will see that every move is made to count. They have system. They make their head save their heels. Some men make harder work of loading manure than others. You have seen them plunge their fork into the pile without apparently looking to see where a forkful should come from, consequently they are obliged to tug and strain when possibly not three feet away a forkful would lift off easily. The same applies to pitching hay, or taking hay or straw out of the mow in the winter.

What is put in last necessarily should come out first, but we have noticed some tugging away to get a forkful of hay at the front of the mow, when it would come easily at the back. You have probably been at threshings where some would work and perspire but not accomplish as much as others who were working at

an easy gait. The latter kept their eyes on the sheaves and always took the top one first, while the former would sometimes be trying to get the sheaf he was standing on. Some people seem to have the knack of doing their work with ease. The secret is that they use their heads.

Then there is the planning of the work and managing the farm. Some apparently have no plans, they can't tell a month before seeding what will be sown in a certain field and do not know to-day what they will do tomorrow. A ship without a rudder would soon be wrecked, so a farmer without system and a plan soon finds himself drifting into the shoals of behind with the work, poor crops, inefficient stock, dissatisfied sons, difficulty to keep help, inability to make payments on mortgage, discouragement, failure. Don't blame your father too much, boys. A mature man cannot readily change his ways. A person who did not train himself to think and plan when a boy or a young man, finds it next to impossible to do so in middle life. As a twig is bent the tree is inclined, consequently, if you want to be a success at farming or any other occupation learn to use your head. If you don't you won't get ahead.

**Training Necessary in Order to Win in Competition.**

EDITOR "THE FARMER'S ADVOCATE":

Having succeeded in winning a first place in the Judging Competition at Ottawa, I take this opportunity of expressing my views of the benefits I received, and of mentioning the system I followed in judging. Last fall I was chosen as a member of the inter-county stock judging team in the competition held at Ottawa Fat Stock Show, and it was in preparation for this event that I received the training which served me well in the competition this fall. Although we did not have

the opportunity of visiting any of the large breeding stables, we had a number of good classes of horses, and from these F. Forsyth, our District Representative, pointed out the type to look for in the different breeds. In placing the classes and giving our reasons we followed the same system as used in the former competition, so I feel that my success is largely due to the efforts of our coach. I have also had some experience exhibiting horses at our local fairs, and have always been an interested spectator at the judging arena.

When judging the horses in the competition the method I followed, if it may be called a method, was to first consider the type and general appearance of the entries, then I compared the set of their limbs and examined them for soundness, quality of feet, pasterns, bone, feathering and strength of joints. After that I looked at the muscling and slope of shoulder; from there I went to their heads and again made a general review of the class. When the class was moved I tried to pick out the best and poorest movers. When I had the class placed, I studied them from a little distance and tried to see if I could justify my placing. If there was any point that I was in doubt of, I again examined them until I satisfied myself as to which excelled. In this way I got the animals fixed distinctly in my mind so that I remembered them when giving my reasons orally. I spent about three-fourths of my time studying and placing the class, and the remainder in writing reasons. In my reasons I tried to state the strong and weak points of each animal.

The chief benefits we receive from the competitions, I think, are: a deeper appreciation of good stock; it impresses upon us the reasons why certain types are desirable and helps to give us some confidence which enables us to defend our opinions. We also meet many young men from different parts of the country with interests and ideals that are much in common.

Lanark Co., Ont.

R. H. MCLQUEEN.

**Automobiles, Farm Machinery and Farm Motors.****Wintering the Car**

The whole tendency in the world is to keep machines running during the entire year. You will perhaps have noticed the efforts the manufacturers are putting forth to make cold weather driving as comfortable as possible. Even the smallest and cheapest cars can now be purchased with sedan or coupelet bodies. Many models are also being equipped with curtains that open with the doors. Such an arrangement provides easy entrance and exit. We personally cannot see any reason why the cars should be laid away in the winter months, for it is an easy matter to observe certain precautions that are necessary for maintenance during the coldest days and nights.

Should you desire, however, to give up driving for the winter, we shall tell you just exactly what to do. Drive the automobile into your garage or carriage shed, which of course has first been cleaned out thoroughly. Then prepare four blocks of wood, sufficient when placed under the front and rear axles to hold the machine well off the floor. Now, while using your jack, place these blocks under the axles. It might be well before doing this to loosen the demountable rim bolts. The tires should be taken off as attached to the rims and placed in some dark corner where they will not be exposed to too dry or too moist an atmosphere. Incidentally the temperature should not be either too high nor too low. It will be well for you to reduce the air pressure in the tires to about forty pounds. If your tires are not on demountable rims you will find it advisable to at least reduce the air pressure in them. The trouble of removing them can be avoided without danger, but if

you have time, we would strongly suggest that they be taken off. Many owners never pay proper attention to their batteries. They are deserving of special care, however. The best thing is to send them to some garage which has a well established battery and generating plant. Here they can be looked after in a scientific manner. Taking the battery out of a car and putting it in your home forces you to run the risk of having the electrolyte evaporate, and in any event the battery will run down.

In so far as a motor is concerned, we always think it well to place some vegetable oil in each cylinder. This keeps sufficient lubrication on hand to make starting easy in the spring. It is not necessary to take the old oil out of the crank case but because you do not do this in the fall it does not follow that it should not be done in the spring. Nickel parts on the engine and upon the body will retain their luster if covered with vaseline. You had better go over the upholstery and remove all the dust and dirt from the folds and creases because this foreign matter will not benefit the leather if allowed to remain upon it for a long time. Such advice is also applicable to the top, which we would ask you to shake well and then dust off thoroughly. Particles of grit have a tendency to harden and become thoroughly embedded in the mohair, burbank or other material of which your top may be made.

As a matter of safety from fire we always deem it an excellent policy to drain the gasoline from the vacuum as well as the storage tank. In fact leave the car in such a shape that it will not encourage any little blaze that may start in its vicinity. Perhaps we have neglect-

ed one important item because we did not think the mentioning of it essential. However, repetition will not be harmful. When you drain the water from the radiator, do so with the motor in operation because you rest assured that every drop possible has come out of the car and that any moisture which remains will be dried up by the heat of the engine. It frequently happens that motorists think they have removed all water but find subsequently that just enough has been left to cause trouble when a severe cold spell comes along. If you are as particular about your machine as we well like to have you, perhaps you will not think it lost labor to go over the springs and oil them so that their period of inaction may be not at all detrimental. A little lubrication cannot do any damage and may result in great good.

AUTO.

**Fluid for Engine in Cold Weather.**

Is there a chemical or fluid which a person can use to start a gas engine in cold weather, which will act quicker than gasoline?

J. P. D.

There are many grades of gasoline and the better the quality of the fuel the easier your engine will operate in cold weather. High test gasoline usually costs about 15% more than the ordinary commercial standard. By putting about four ounces of camphorated oil in ten gallons of gasoline you can usually get quicker action, according to the word of some excellent authorities.

AUTO.

**THE DAIRY.****Clean Dairy Utensils Necessary for Clean Milk.**

Most of the bacteria which get into milk come from the dirty cow and from the utensils, such as cans, pails, strainers, coolers and separators, which have not been properly cleaned. In winter the cows are likely to become dirty from confinement in the barn, but in summer they are easily kept clean so that they are then of little relative importance in contaminating milk. On the other hand, a far greater number of bacteria get into milk from dirty utensils in summer than from a dirty cow in winter.

A bacterial count recently made from some of the rinsing water left in an eight-gallon can, which had been

washed twelve hours before, showed the can to contain more than three billion bacteria. Eight gallons of milk placed in this can would have received a contamination of nearly 100,000 bacteria for each cubic centimeter. This can had been thoroughly rinsed and left covered in a room where the temperature was about 70 degrees F. An experiment made during the winter when the temperature was below 50 degrees showed fewer than 3,000,000 bacteria in a can similarly treated, which would mean a contamination of fewer than 100 for each cubic centimeter of milk.

A can which was rinsed, subsequently heated with steam and then turned right side up with the cover off until dry, contained approximately 200,000 bacteria or a contamination of about 7 for each cubic centimeter. Experiments of this sort which have been carried on at the University of Missouri College of Agriculture indicate that the point of chief importance in the care of dairy utensils, especially in warm weather, is thorough

drying after cleaning. Cleaning will remove a large per cent. of the bacteria and much of the food for their growth. Application of steam for thirty seconds kills very few, but it will supply heat to dry the utensils which prevents bacterial growth so that there will be practically no more present twelve hours later than five minutes after washing the utensils.

Much emphasis has been laid upon thorough cleaning of utensils, and rightly so, but the process of drying is equally important in warm weather. Drying should not be done with a cloth, but by heating the utensils in hot water or steam sufficiently to evaporate moisture.

General recommendations for the care of utensils are: 1. Rinse in lukewarm water as soon after as possible. 2. Wash in hot water containing washing powder which will remove grease. 3. Rinse in clean, hot water and place in live steam fifteen seconds, drain and place right side up until steam evaporates. On the farm

where steam is not available sunning will give effective results 4. Invert in a clean, protected place when dry.—From American Cheese-maker.

**Some Cost Items in Milk Production.**

EDITOR "THE FARMER'S ADVOCATE":

While the committee appointed by Mr. Hanna is investigating the cost and profit in the production and distribution of milk, it might be well to summarize some of the facts having an important bearing on the points under discussion. It is well to note at the outset that the dairy cow of average capacity represents an invested capital of approximately \$100. At ten years of age she has usually depreciated in value to such an extent that it is necessary to dispose of her as a canner at \$25 or less. Being of the dairy type it certainly would not pay to feed her a lot of high-priced materials with beef production in view.

Beginning with the question of feed costs, the farmer is at once confronted with a factor that has a considerable bearing on production. As a matter of fact, conditions have so changed that it now costs upward of 125 per cent. more to produce milk than two years ago. Formerly, the farmer who planned to buy certain foodstuffs with which to balance up the ration for his herd, followed the principle of laying in the required supply during the summer months when prices were lowest. Last year's crop shortage, of course, makes this impossible at the present time; he considers himself lucky if he can secure a few hundredweight to last him from day to day. As a result, he is forced to pay a retail price for raw material, and at the same time sells his finished products at wholesale. What consumer, if placed under these conditions would consider he was getting a fair deal?

If the aforesaid consumer is sufficiently interested to investigate the matter he will find that the annual outlay for feed per cow will not fall far short of \$80, and in many cases will surpass that figure. But feed costs are by no means all that must be taken into consideration. After he has added interest on investment, cost of labor, service of sire, depreciation of plant, insurance and half a score of sundries, the cost of milk production reaches the neighborhood of \$140—considerably more than her estimated value.

Perhaps, someone who is more acquainted with the consumption of milk than its production will advise to proceed a little more economically, and so provide a means of letting down the cost to all concerned. As a matter of fact, the writer has learned from his own experience, as every practical producer has done, that the dairy cow is very much of a machine, and as such will not give something for nothing. Even during the pasturing season, except, perhaps a few weeks in June, she will not milk up to her capacity without a light ration of grain, which must be increased as the season advances. In making the foregoing statement as to annual feed costs I have estimated the value of pasture at \$2.50 a month per cow, hay at \$10 per ton, silage at \$3 per ton and roots at \$6. The grain figured on was confined to that which could be purchased at a reasonable price, and at the same time with a feeding value consistent with its cost. If any fault can be found with the prices quoted it will be that they are too low. Certainly they will be verified by those who Mr. Hanna's committee will call to throw expert light on the subject. When it comes to the question, "To feed or not to feed," it is a case of staying in the business at a reasonable profit or getting out of it as a failure.

Labor, when it can be procured, comes high. This may be very moderately estimated at 15 cents a day per cow. Hence, a man who has a herd of fifteen cows charges \$2.25 a day for his work and boards himself. The writer has done just that and does not consider that he over-charged for the work involved.

The item of interest is the very first thing that a manufacturer figures on when estimating his production

costs. Nine times out of ten it is entirely overlooked by the farmer. The total investment and equipment on the average 100-acre farm carrying say 15 cows may be fairly estimated at \$10,000. Assuming that one-half of this is devoted to dairying, half of the income should be charged as coming from that source. There would, therefore, be \$300 in interest charges to be divided over 15 cows, or exactly \$20 per animal.

Regarding the cost of bull service, I have based my figures on the fact that it will cost at least \$60 a year to maintain a herd sire in good breeding condition. This adds another \$4 to the cost of each member of the herd. To this must be added the cost of insurance, veterinary fees, cartage of milk, care and upkeep of utensils, etc.

Unfortunately, many farmers have signified their intention of selling off their fall-calving cows and going, at least, temporarily out of the business. This indicates that the problem of production costs is becoming serious.

"AGRICOLA."

**The Milk Flow Changes With Age.**

Under ordinary conditions a heifer is expected to give considerably more milk and butter-fat the second lactation than she does the first, and more the third than the second, but a fairly uniform flow is maintained for a number of years after a cow reaches maturity. This fact influences a dairyman when placing a value on his herd, or when buying stock. If a junior or senior two-year-old has a record of a certain weight of milk, he estimates what that animal will do as a mature cow, and bases his value accordingly. Eckles and Warren, in "Dairy Farming," state that "on the average a well-grown two-year-old may be expected to produce 70 per cent., a three-year-old 80 per cent., and a four-year-old 90 per cent. of the milk and fat that she will when mature. The highest production for the year may come anywhere between the fourth and eleventh year." Pearl and Patterson, of Maine Experiment Station, have made a study of the question using records of Jerseys entered in tests. The results are charted and published in Bulletin 262 of University of Maine. They are to the effect that production changes with age in a definite manner. The chart shows a gradual rise in milk yield up to eight and a half years, then the line slowly recedes. From this it would be gathered that a cow was at her best at between eight and nine years of age. However, there are cows on record which have held to their maximum production until well over that age. It does not necessarily follow that a cow is past her usefulness when her milk yield declines owing to age. She has a value as a breeder. The offspring of a cow that has proven her worth is more valuable than the progeny of a heifer. It is unfortunate that failure to breed and udder trouble cuts short the period of usefulness of so many valuable dairy cows. A large number of cows are forced to the shambles from one or both of the aforementioned troubles, before they have reached their maximum production. Greater care should be exercised to keep the udder in good form and to prevent disease which might render the cow barren.

There is reasonable assurance that the heifer of high-producing ancestors will be a profitable cow, although there are exceptions to all rules. The heifer which only gives three or four thousand pounds of milk the first lactation is a doubtful proposition as a money-maker from the milk point of view, no matter how well bred. Of course, four thousand pounds of milk is well up to the average yield for the Province, but it is far below the possible, and every dairyman should aim at, at least, double this yield for every mature cow in his herd. At even \$2.00 per hundred for milk, a cow must give a good flow to pay for her feed, let alone give returns for labor and allow for interest, depreciation, etc. By careful breeding, selection and feeding the average milk yield could be materially increased.

**Some High Records.**

During the months of August and September there were fifteen Holstein cows and heifers accepted for entry in the Record of Merit. Lakeview Hengerveld Wayne was first in the mature class. Her seven-day record being 467.3 pounds of milk and 27.42 pounds of butter. Madam Posch Pauline has completed a full year under official test with 27,597.4 pounds of milk and 1,123.5 pounds of butter. This is the largest official milk record yet reported in Canada. Colony Beulah De Kol Korndyke was the only cow qualifying in the senior four-year-old class. Her milk yield was 433.9 pounds of milk, making 17.87 pounds of butter. Johanna Meg was first in the junior four-year-old class with a record of 521.8 pounds of milk and 23.04 pounds of butter. Colony Koba De Kol Newman, Colony Meta Shadeland, and Colony Poetess Korndyke 2nd won the senior and junior three-year-old class, and senior two-year-old class, respectively. The junior two-year-old class was headed by Het Loo Artis Korndyke with a record of 24 pounds of butter.

Twenty-six Holstein cows and heifers qualified in the yearly record of performance test during August and September. Desta was first in the mature class; her record of 27,128 pounds of milk is the largest yet reported for a cow qualifying in the R. O. P. test. Her butter record is 1,048.75 pounds. De Kol Korndyke was first in the four-year-old class, with a milk record of 17,577 pounds. The three-year-old class was headed by Maple Leaf Pontiac Girl, with 11,735 pounds of milk. In a class of eleven two-year-olds, B. C. Choice Walula was first. Her milk record was 9,396 pounds with 418.75 pounds of butter.

Condemn not that cow before you have tested her.

There is a vast waste of energy in keeping poor cows.

The scales and tester finally kill the boarder cows in the herd, but exalt those which turn their feed to good use.

Up to April 30, 1917, there were forty-one 20,000-lb. Holsteins that qualified in the R. O. P. Six of these have a butter record of over 1,000 pounds.

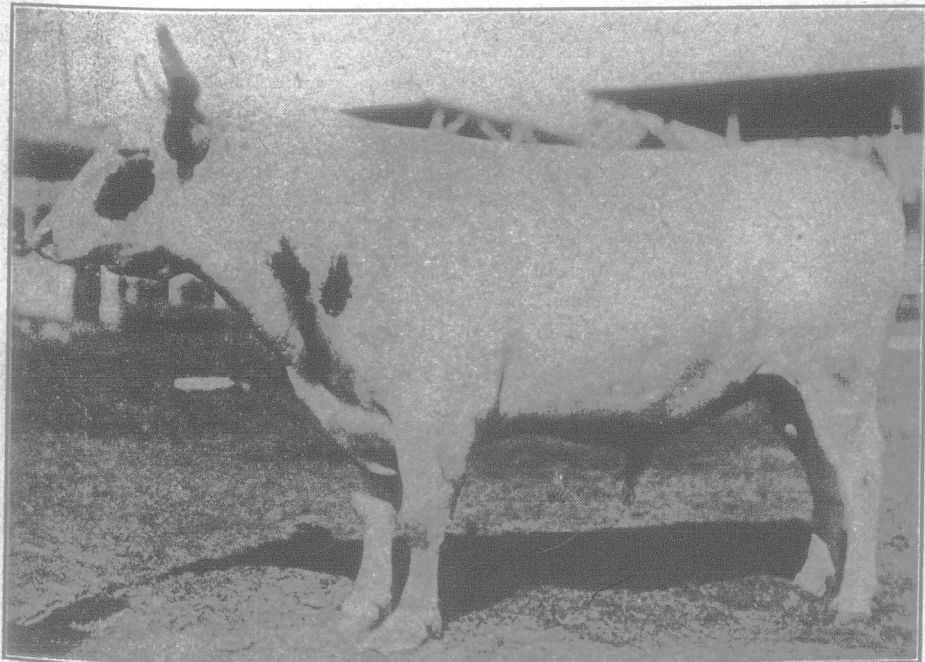
When comparing prices offered for milk, don't forget to allow for the by-products, as whey and skim-milk. They have a cash value when fed to hogs or calves.

Save the heifer calves from the most efficient cows. A heifer calf from a poor milker is an uncertainty at all times, and generally grows up to be an unprofitable proposition.

Is a grade bull good enough for your grade herd? We think not. There are many good, typey, registered bulls for sale, which, while costing a little more than a grade, will improve your herd and will prove to be the cheaper in the end.

The spread of disease is being laid at the door of unpasteurized by-products from cheese factories and creameries. Pasteurization of dairy by-products from cheese factories or creameries aids in protecting your stock from tuberculosis and other diseases.

The results of an investigation made by Purdue University, relative to the cost of producing milk during six winter months, showed that feed and bedding required to produce 100 pounds of 3 1/2-per-cent. milk cost \$2.16. The labor cost was 51 cents and overhead expenses 47 cents, making a total of \$3.14 per 100 pounds. According to this the prevailing price for milk barely pays for feed and bedding, leaving the dairyman to work for nothing and carry overhead charges besides.



**Hillside Peter Pan.**

Senior champion Ayrshire male at Toronto and London for A. Hume & Co., Campbellford, Ont.



**King Fayne Alcarten.**

First senior Holstein calf at Toronto and London for M. H. Haley, Springfield, Ont.

## POULTRY.

### The Value of Mineral Elements in Poultry Feeding.

EDITOR "THE FARMER'S ADVOCATE":

Observations from practice in poultry feeding give the general impression that the quantity of mineral matter supplied to fowls should be sufficiently large, but little attention has been given to its composition.

All foods do not contain the fourteen elements, from which the animal-body is constructed, in amounts sufficient to sustain growth, and it is recognized that deficiencies in the amount and kinds of nutriment available may affect not only the size but also the character of the growth of animals. On the other hand, there is a prevalent idea that the mineral-nutrients are present in all foods in excessive amounts and that therefore, the study of this matter is not of great practical importance. The fallacy of such an assumption is clearly borne out by experimental data at hand, although detailed information with reference to mineral nutrients in poultry feeding, in particular, is limited. Available results of such work are obtained from Ingle in England and South Africa, Laurie in Australia, Wheeler and Bolté in the United States. Valuable comparative data is obtained from the investigations of Forbes of the Ohio Experiment Station (U. S.)

Concerning feeding practice it may be said that there is no particular relationship between the compounds of the ash and the compounds in which the elements occur in plants and animals. But with this particular phase we are not chiefly concerned, since our object is to determine the mineral requirements for specific purposes.

#### Mineral Elements in the Fowl's Body.

Calcium appears abundantly in the form of calcium oxide (CaO); three-fourths of the ash of the body is lime and seven-eighths of the ash of bones is phosphate of lime. The presence in the body of calcium salts is necessary to muscular contraction.

Phosphorus occurs in a number of forms; inorganic phosphates, which occur throughout the body in solution in its fluids and also in the solid substance of the bones; lecithins which are found in all plant and animal cells; phosphoproteins and nucleoproteins. In the inorganic phosphates phosphorus is present as salts of the mineral basis, calcium, magnesium, potassium and iron. These are readily digested and assimilated and may be retained in the body and used for the various functions. Three-fourths of the mineral matter of the body is inorganic calcium phosphate.

Iron is one of the least abundant though most important elements in the body. Without iron the blood cannot carry oxygen.

Sodium is present principally as chloride, common salt, (NaCl.) but also as the phosphate and carbonate. Sodium salts are essential to cardiac relaxation. Without sodium and calcium salts, the heart is unable to function at all.

Potassium is present mostly as salts of mineral acids.

Magnesium, mostly as the phosphate, is found in small quantities in the bones.

Sulphur is an essential constituent of all of the proteins of the body.

#### The Functions of the Mineral Elements.

When we consider that the mineral elements in the body are most of them strongly acid or basic, we know that their compounds have a tendency to become exceedingly active when in dilute solution. Thus, through their particular attributes the mineral elements maintain a very important relation to practically all the vital processes and they enter into the composition of every tissue and fluid of the body.

In considering the constructive purposes of the mineral elements we note that calcium, phosphorus, sulphur and iron are used in the formation of the essential structures in the body. Iron, also, through its affinity for oxygen, becomes a carrier of gaseous products and functions in the liberation of energy. Sulphur and phosphorus contained in proteid substances give rise to sulphuric and phosphoric acids and these acids are neutralized through the equilibrium existing in the blood between the alkali carbonates and the phosphates. Again the activity of enzymes, which function in building up and tearing down chemical compounds in the animal body, requires certain degrees of acidity or alkalinity which are maintained through the presence of mineral salts. "The control of both voluntary and involuntary muscles is accomplished through the proportion of calcium, magnesium, sodium and potassium salts acting upon them". Other functions of mineral salts are to serve in the movement of liquids throughout the body and its tissues, to facilitate vital processes involving the proteids, and to keep certain nitrogenous constituents, in solution, in the liquids of the body. Calcium in the blood is essential to its coagulation, and mineral chlorides furnish the chlorine of the hydrochloric acid in the gastric juice, pepsin being inactive except in the presence of hydrochloric acid.

#### The Mineral Elements must be Properly Balanced.

It will be noted at once what a variety of functions the mineral elements serve in nutrition and it is also interesting to note the effects of lack of mineral nutrients. From Forbes we learn that Forster, a German physiologist, first proved that animals can live but a few days on food that is practically free from mineral matter, and, strangely, "that animals will live longer if given no food at all". In considering the possible causes of

the deficiency of mineral matter—chiefly phosphate of lime—in the bones of animals suffering from a peculiar bone disease (osteoporosis) Ingle was led to attribute its prevalence in South Africa to the peculiar diet used for working animals in that country—a diet composed of entirely of oat-hay or oat-hay and maize grain. Both of these foods are characterized by containing a high proportion of phosphoric acid and a low proportion of lime in their proportion of phosphoric acid and a low proportion of lime in their ash. In experimenting with rations to overcome the conditions resulting from continued feeding of oat hay, Ingle prepared a diet to which he added various mineral salts and which gave very beneficial results. His work with horses led to further work with poultry.

In regard to the erroneous assumption that it is the amount and not the composition of the ash constituents that is important in bone formation, the feeding of bran to chicks may be taken as an excellent example. Bran is rich in ash and on this account it has been extolled as being peculiarly well fitted for bone formation. It contains, as a matter of fact, about 3.3% phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>) and only about 0.3% lime and is therefore not especially suitable for the promotion of bone formation.

The results of the analyses of Lawes and Gilbert of the whole carcasses of various farm animals show that the total lime present exceeds the total phosphoric acid. In bones of animals the ration is about 100 of phosphoric acid to 150 of lime. Seeds of all kinds contain far more phosphoric acid than lime though many contain considerable quantities of magnesia; there is always a preponderance of phosphoric acid. Stems and leaves of plants, as a rule, contain a preponderance of lime. If, as we have reason to believe, animals require for healthy bone formation and renewal, lime and phosphoric acid in approximately equal proportions, it is evident that a diet composed exclusively of the grains is not adapted to supply their needs and cannot be used, for long, without injury to health. From a consideration of these facts it appears possible that the value of green food or substitutes may depend chiefly upon the lime content.

#### Mineral Supplements to the Diet.

Some years ago Ingle devised a preparation intended to be administered along with the usual food, adapted to ensure that the animals, so fed, should receive adequate supplies of all the necessary mineral constituents which might be lacking in their ordinary rations. This prescription he supplied to several correspondents in South Africa, and whenever tried the preparation proved very beneficial in preventing ill-health in poultry kept in confinement. In England and America where greater variety of food is usually available, the need for the preparation is perhaps not so great, but even with poultry kept under the best conditions it has produced under careful experimental conditions, a decided increase in the rate of growth of young poultry.

An interesting and suggestive contribution to the study of this question is given in experiments undertaken at the College Farm, Theale, England, under Edward Brown; late of the College Farm and at present President of the International Association of Instructors and investigators in Poultry Husbandry. Experiments were conducted with a preparation of mineral salts prepared by Ingle as follows: Common salt, 30 parts; phosphate of soda, 9; calcium fluoride, 1; ferrous sulphate, 1; bone ash, 30; chalk, 14; Epsom salts, 10; charcoal, 2 and flowers of sulphur 3 parts, making 100 parts in all. Two lots of White Wyandotte chickens, besides others, were fed from birth in exactly the same way, excepting that one pen received a small quantity of the "mineral food", while the other did not. At eleven weeks old the nine chickens in the former pen weighed 18 lbs., or an average of 28 oz., the twelve chicks in the latter pen weighed 17 lbs., 2 oz., or an average of 20 oz. Remembering that the chicks were all fed in the manner usual at Theale—i.e., doubtless upon a varied diet—these results afford strong evidence of the usefulness of the "mineral food," for had the diet been composed of only one or two items, as is often the case with chickens in confinement, there can be little doubt that without this addition the growth would have been less than it was and the advantage correspondingly greater. Trials of laying hens, with a grass run, carried out by Edward Brown showed little or no effect so far as number or weight of eggs produced was concerned, but the birds receiving the mineral food came to lay more quickly, but whether this result was due to the mineral food or to other causes cannot be stated. In other trials, carried out by F. Parton, Poultry Expert of the Leeds University, it was noticed that with pullets the mineral food induced the growth of larger combs, and that with Leghorns the combs of the pullets receiving the preparation grew perfectly erect instead of pendulous, as is usually the case.

In experiments to determine the source of material for the egg shell, Wheeler at the New York Experiment Station found that lime in the egg shell was largely derived from the calcium of oyster shell fed in a test comparing oyster shells with broken glass.

Wheeler found that most grain rations for growing chicks were improved by the addition of bone ash. Oyster-shell was found to be less valuable than bone ash and rock phosphate.

Growing chicks need calcium phosphate as a mineral supplement to the grain rations. Laying hens need calcium carbonate as a mineral supplement to the grain rations; egg shells are high in percentage of calcium since they are almost pure calcium carbonate.

In conclusion it may be observed that comparatively little has been done to determine specifically the value of mineral elements in poultry feeding, and yet, notwith-

standing this, the available data shows conclusively that mineral elements are essential for the functioning of the vital processes as well as for the development of bone and eggs. It is clearly essential, then, that definite work should be undertaken to determine the most economical methods of supplying the required mineral salts in specific rations.

Macdonald College

M. A. JULL.

### Prevent the Birds Contracting Colds.

The loss to poultrymen occasioned by catarrh, colds and roup amounts to a good deal during the fall and winter months. The damp cold weather in early fall causes an outbreak in flocks which are not properly nourished and housed. Roup in particular is infectious and spreads from one bird to another, consequently it is not unusual to see the majority of some flocks infected with the disease. Catarrh is non-contagious and may only affect a few birds and this trouble is caused largely by exposure to cold and drafts. Weak stock will be attacked before strong, vigorous birds. When symptoms of colds are seen in the individuals of the flock, treatment should be administered to prevent the trouble developing into that more fatal disease known as roup. The secretion should be removed from the mouth and nostrils and then warm water used to cleanse them. Potassium permanganate, two-per-cent solution, or a two-per-cent. solution of boracic acid may be used for disinfecting the air passages and eyes. Roup is a contagious catarrh and attacks the membranes of the eye, the nostrils, larynx and trachea. The symptoms of the disease are known to most poultrymen. There is usually a fever and a dullness in the birds, and a thin, watery discharge from the nasal opening which after two or three days may become thick and obstruct the breathing. The eyelids become swollen and completely closed in time. The birds sneeze in an effort to dislodge the secretion from the air passages. They have no appetite and sit around with their heads drawn into the body. As a rule roup does not kill quickly, the course of the disease is of long duration. It is often noticed that affected birds will appear better for a few days and then become worse. It is claimed that roup will remain in the flock for a number of years and cold and dampness will so aggravate it as to bring pronounced symptoms. The disease is not nearly so common in spring and summer as it is in the fall and winter. The following mode of dealing with the disease is given in "Diseases of Poultry," by Pearl, Surface and Curtis: "The best treatment is prevention. The disease can be prevented by stopping of infection. In introducing new birds always procure them from uninfected flocks. Isolate all new birds and all birds which have been exhibited at shows, for two or three weeks, to make sure that they do not develop the disease. Exclude from uninfected house and yard poultry and all animals coming from those which are infected. Do not use implements that have been used on infected premises. Keep the birds in a good hygienic condition, well nourished and in dry, well-ventilated houses and roomy yards. If the disease has been introduced into the flock, immediately separate from the flock any birds which show symptoms. Disinfect the yards and houses and follow with a whitewash. Use potassium permanganate in the drinking water. Burn or bury all birds that die. Medical treatment is as follows: If the eyes and nostrils are attacked they have to be carefully washed at least twice a day with an antiseptic solution such as two per cent. boracic acid in a decoction of chamomile flowers, or one-half per cent. solution of corrosive sublimate. This kills the organisms. The use of one to two per cent. of permanganate of potash has given good results. The nostrils are pressed between thumb and forefinger in the direction of the beak. This helps to loosen the discharge in the nostrils. The bird's head is then plunged into a solution of permanganate for twenty or thirty seconds. When solid tumors occur on the eyelids, they should be opened and the cheesy matter removed, then the surrounding membrane touched with a five-per-cent. carbolic acid solution."

Treatment requires a lot of time and patience, consequently every means should be adopted to prevent infection. No poultryman can afford to have half or even a quarter of his flock used up by this disease for a portion of the winter when eggs are high in price. Poultry must be attended to if results are to be obtained. Better to dispose of the flock than have the birds sickly and non-productive the greater portion of the time.

## HORTICULTURE.

### Some Good Things.

EDITOR "THE FARMER'S ADVOCATE":

With the season's garden operations fresh in mind, now is the time to dig out a few nuggets of experience of value in planning future work. Some crop may fail to make good any year, but one can always count on a harvest of information. Like charity, it never faileth. The best garden book is the plot and what grows in it. There is something worth while to be learned from every day's page.

Potato Seed Trial.—At the rate potatoes have rotted in some patches, the owners will do well to conserve seed tubers for next spring. The question is whether to eat the small ones or the big ones, or to dig out the eyes to plant and eat the rest. A Michigan seed catalogue offering eyes for sale led me to make a trial on my own account in three rows. In No. 1 row I planted three healthy eyes gouged out of good, large potatoes; in

No. 2, three small, uncut potatoes, and in No. 3, three cuts of good-sized potatoes. I took particular pains in mellowing the soil so that the eye sets might have a fair start, but the yield was only about one-quarter of that from the planting of the little, cull tubers, and the latter was ten per cent. less than that from the planting of first-class cuts. The potatoes from the seed eyes in size, ranged from medium to small, and the small seed gave a far larger proportion of small potatoes than what was dug from the seed cuts of the good tubers. If one has nothing else left but eyes they may be used, but the trouble is that they receive a very poor start in life compared with the eye bedded in a slice of a full-grown potato. Like produces like in potatoes.

**Strawberry Mulch.**—In mulching strawberry or other plants for winter, make sure that it is free from weed seeds. I once tried some old hay and got a dose of twitch grass for my pains, and another time a growth of timothy from a wheat-straw litter. A light dressing of stable manure rotted down so that weed seeds have perished I have found a good dressing for winter.

**The Mulberry.**—In making a list of fruit trees for planting next spring include a mulberry or two. Our large tree was in bearing this season from July until October, making pies and preserves galore. The fruit resembles a large thimbleberry but is less seedy. Its sweetish flavor makes it fine to mix with fruits of a more distinct or acid tang. It is a steady and prolific yielder for over two months. It requires care in picking, as it falls easily and should be headed down to a reasonable height. Our old tree had run up to about thirty feet high with sprawling limbs, but by drastic surgery the three main trunks were cut down to about fifteen feet high, and, throwing out fresh shoots freely, made a better tree and a better fruit bearer. It stands hard usage well and is popular with the birds. Try it.

**Onion Growing Trial.**—The best results this season in onions were with Prize Taker variety, started from seed in a hot-bed and transplanted to open rows on May 28, but the Yellow Globe Danvers seed sown in open rows on May 13 were a close second in size and quality of bulbs grown.

**Sweet Corn.**—It is not easy to beat Golden Bantam corn for table quality, but it is hardly "filling" enough to be popular with boardinghousekeepers in war ration times. After several years' hunting I found this season that Golden Nugget about fills the bill. It grows a larger and more vigorous stalk that carries a much more generous ear, larger and of a diameter better designed to fill a No. 10 mouth. And best of all, the strain tried preserved the peculiar sweet, tender and juicy quality of our old friend, Golden Bantam. This was an off year for maturing corn and the Golden Nugget did not ripen quite as early as its competitor, which one might expect from its habit of growth. It has a handsome, orange kernel, and the ears were used on into October. The planting of this sort was on June 4.

**Some Beans.**—Another good thing tried out was the Kentucky Wonder, yellow podded, pale bean, delicious as any snap, wax variety and stringless. Many of the pods were seven and eight inches long, very thick and meaty, and I counted over one hundred pods on a pole at one time. Somebody may tell you that the green podded Kentucky Wonder is the same or "just as good." Don't believe him. With me, it was not as early, not as prolific, nor of as fine quality. For an early, low bush bean Michigan Golden Wax is a capital sort, but Hudson Wax proved a heavier and longer bearer. Wardwell's Wax was most subject to blight. If you are lucky enough now to have some ripened beans take good care of them for seed. An early frost slaughtered so many acres of Western Ontario beans.

**Winter Care of Celery.**—One of the last fall jobs is to store the celery for winter use. This was a good season for this choice esculent in an upland, clay-loam farm garden. Paris Golden for early and Giant Pascal for late, both did well. I leave them out as long as possible and until sleet and hard frosts threaten. Packed in moist sand in a cool quarter of the home cellar in rows with inch boards between, the Giant Pascal kept right on until May in sweet, nutty condition last season. By the way, Hubbard squash are a troublesome vegetable to keep from spoiling with a moldy rot in early winter. The main point seems to be to keep them in a dry place, fairly cool and not touching each other.

**Tomato Patch Study.**—As might be expected with a plant of semi-tropical origin, the summer of 1917 was a disheartener for many reputable varieties of tomatoes. Most of the twelve sorts under trial developed loads of good-sized fruit, but there was not sunshine and heat enough to ripen half of them. The late-maturing varieties like Stone, Trucker's Favorite and Ponderoso were severely left behind. The last-named and the New Monarch, said to be an improved Ponderoso, are very large, prolific and, as a rule, irregularly shaped tomatoes, but the New Monarch surpassed anything in the garden in meatiness, freedom from seeds and cavities and in mildness of flavor. The bane of many handsomer kinds is their excessive acidity for eating sliced and canning. Those named were prolific, the Stone giving the heaviest yield of uniformly, large, smooth and perfectly-shaped fruits, but nearly all of them remained green. After four years' trial with seed from American and Canadian sources, the Earliana classed itself as the poorest apology for a tomato. The earliest ripening was Livingstone's New Manifold, a good-yielding, smooth sort, of medium size which will doubtless improve in type by culture. For a combination of size, yield, earliness and other desirable qualities, Chalk's Early Jewel, Bonny Best and Italian, a scarlet home-developed "sport" outclassed all the others, and with the Stone are set down as the main reliance for the next seeding, with a smooth selection of the New

Monarch sort for home table use. One specially desirable feature of the kinds named is that they have plenty of vine and foliage necessary to sustain and protect a load of good fruit through drought and frosts. Professional improvers should keep this in view and also the improvement of tomato flavor, which cultivated tastes will more and more demand.

**Hot-bed Soil.**—On the first available fine day before winter comes, those who start planning now for a good garden in 1918 should get up a big load of swamp mould and dump it where the hot-bed will stand, because frost and floods may prevent securing it in spring when wanted.

**Pests.**—Barring the green cabbage worm, which slacked lime and hellebore kept in check, insect pests were not troublesome during the past season and, for the encouragement of beginners, weeds were less troublesome in the writer's 1917 garden than ever before, for the simple reason that they have not been allowed to run to seed and only rotted manure, plowed down in the fall, was used on the plot.

Middlesex Co., Ont.

ALPHA.

of fruit the third year, but as a rule there are only a few apples the second and third years, and most trees do not give more than from three to five gallons the fourth year. The fifth year there is about half a barrel to a tree, although there has been over a barrel on one tree. By the seventh year the trees will be bearing a barrel or over, and by the eighth year there has been as high as two barrels on a tree. By the eleventh year some trees will bear two and a half barrels, and by the thirteenth and fourteenth years from three to four barrels. The highest yield obtained from a Wealthy in one year was 5½ barrels in the twenty-fourth year. The average yield per year from the third to the twenty-sixth year is about a barrel and a half. This is a low average compared with some other varieties but the Wealthy is a small tree and as a rule bears heavily one year and has a light crop the next which brings down the average. But from the twentieth to the twenty-sixth year the average is two and three-quarter barrels a tree."

## FARM BULLETIN.

### Results With Root Seed Growing in Canada.

Among the problems that the great war has created for Canada, that of growing root seed, i. e. seed of swede and fall turnips, mangels, and field carrots, may seem rather insignificant to the average Canadian citizen. Yet, this problem is to-day one of the most vital to the Canadian farmer. In 1916, Canada imported a total of 1,927,313 pounds of turnip seed, 1,056,060 pounds of mangel and beet seed. In 1916, the import of turnip seed dwindled to 150,855 pounds and the import of mangel and beet seed to 636,797 pounds. In 1917 the figures stand at 291,379 pounds for turnip seed and 891,677 for mangel and beet seed. That Canada was running a great risk of having her supply of root seed from Europe shut off, partly or wholly, as a result of the war, was predicted in an Experimental Farms bulletin entitled "Growing Field Root, Vegetable and Flower Seeds in Canada," issued early in 1915. The bulletin also predicted "that many districts of Canada where root seed growing is unknown at present, will prove themselves not only able to produce seed of good quality, but also to be especially well adapted to seed raising." To what extent this prediction was justified, is shown by the data following: In 1915 the Central Experimental Farm at Ottawa produced first-class mangel seed at the rate of about 1,150 pounds to the acre. Mangel seed was produced at the Experimental Farm at Agassiz, B. C. at the rate of 2,100 pounds per acre, at the Experimental Station at Lennoxville, Que., at the rate of 1,150 pounds per acre and at the Experimental Station at Kentville, N. S., at the rate of 2,100 pounds per acre. The same year the Experimental Station at Lennoxville, Que., raised turnip seed at the rate of close to 1,250 pounds to the acre.

But what about the profit? Does it pay the grower to raise that kind of crop? As an answer, it may be stated that there was, according to records kept, a net profit of about \$80 per acre from the mangel seed crop at the Experimental Farm, Ottawa, in 1915. And this in spite of the fact that the men handling the crop were quite unfamiliar with the same. The above figures indicate, most decidedly, that there are, in Canada great opportunities for developing a new field in agricultural activity promising substantial rewards, from a profit standpoint, to those who take up root seed growing conscientiously and in a business-like manner. May it also be added that the raising, in Canada, of the seed needed in the country will directly help to increase the average yield of the root crops of the Dominion.

EXPERIMENTAL FARMS NOTE.

### Distribution of Seed Grain and Potatoes.

By instructions from the Hon. Minister of Agriculture a free distribution of superior sorts of grain and potatoes will be made during the coming winter and spring to Canadian farmers. The samples of grain for distribution will consist of spring wheat (about 5 lbs.), white oats (about 4 lbs.), barley (about 5 lbs.), and field peas (about 5 lbs.). These will be sent out from the Central Experimental Farm, Ottawa, by the Dominion Cerealists, who will furnish the necessary application forms. A distribution of potatoes in samples of about 3 lbs. will be carried on from most of the experimental farms, the Central Farm supplying only the Province of Ontario.

All samples will be sent free by mail. Only one sample of grain (and one of potatoes) can be sent to each applicant. As the supply of seed is limited, farmers are advised to apply early.

J. H. GRISDALE,  
Director, Dominion Experimental Farms.

According to the Census and Statistics Office, the total yield of wheat for Canada is now provisionally estimated at 231,730,200 bushels, the average yield per acre being 15¼ bushels, as compared with 16¼ bushels reported a month ago, and with 17 bushels the yield of 1916. Of oats the total yield is 393,570,000 bushels, as compared with 410,211,000 bushels in 1916, the average yield per acre being 29½ bushels in 1917 as compared with 37.30 bushels in 1916. Barley yields 51,684,000 bushels, as compared with 42,770,000 bushels in 1916, the average per acre being 21½ bushels as compared with 23.72 bushels in 1916. The yield of rye is 4,239,800 bushels, which is slightly more than the quantity returned a month ago.

### Yields of Apple Trees at Different Ages.

The question often arises in the mind of the orchardist as to whether he should set all standard varieties of apples and wait several years for returns, or use other kinds, the fruit of which is not so desirable but is borne by the tree at an early age. Some have compromised and set standards and fillers, while yet others have planted such kinds as Duchess and Wealthy in blocks as close together as one rod to 18 feet apart both ways. In one case they expect almost immediate but moderate annual returns, while those who cling to the standard varieties are content to wait for a number of years in anticipation of a product that will bring a higher price and is easier to handle and dispose of. It has never been decided definitely by experiment which is the more profitable, to plant a Duchess tree and begin to harvest fruit in the third year or plant a Spy and wait a dozen years or more for it to begin to bear. By profitable we mean considering the total returns over a period of 20 or 25 years. We have used these two varieties as an illustration only; the same might be done with several important varieties of apples. The outcome of any such experiment, on the other hand, might tend to prove incorrect any statement made, no matter how conclusive the test proved to be. For instance, let it be found that Duchess, Wealthy or any other early-bearing variety would pay more handsomely during the first 20 or 25 years after setting than Spy, Baldwin, Greening and several of the standard kinds, and the setting of that type would become so extensive that the demand would not consume them at remunerative prices. The Spy-Baldwin-Greening class would then prove better payers and the experiment would have been vain. At the Central Experimental Farm, Ottawa, records have been kept for a period of 18 consecutive years, and much useful information is available as a result. However, several standard kinds are not hardy at Ottawa and are consequently absent from the report. If experiment stations could see into the future and outline work that would benefit someone in years to come they would add very materially to their usefulness. "Hand to mouth" experimenting and thinking always of the Annual Report is one reason that our horticultural stations are not accomplishing as much as they should. A chart prepared by the Dominion Horticulturist showing the annual yield of a great number of varieties for a long period, is the only thing of its kind that has come to our attention. Unfortunately the Spy, Greening, King, etc., are not listed, for reasons already given, but Mr. Macoun's comments on several early-bearing kinds are interesting. They are reproduced in the following paragraphs:

"It has been found that the McIntosh apple comes into bearing the sixth year after planting at Ottawa. In that year a tree has borne about two eleven-quart baskets of fruit, and by the eighth year nearly a barrel of fruit is borne on a tree. By the tenth year a barrel and a half; by the twelfth year three barrels; the fifteenth year four and a half barrels; the nineteenth year seven and a half barrels; the twenty-first year seven barrels; the twenty-third year six barrels, and the twenty-fourth year four and three-quarter barrels, or an average during the past two years (1913, 1914) of nearly five and a half barrels a year. Taking the average per year for nineteen years during which it has been in bearing, we find the average yield per year from one tree has been about two and three-quarter barrels. It would look as if one might safely count on two barrels a tree.

"The Duchess of Oldenburg apple is one of the most reliable and productive varieties. It begins bearing the third year after planting, and by the sixth year the trees will bear nearly a barrel apiece, by the eighth year two barrels, and by the tenth year three barrels; by the eleventh year more than four barrels, and the maximum crop so far has been reached in the twenty-fourth year when a yield of over eight barrels was obtained from one tree. One tree bore the following crops in thirteen years, beginning with the eleventh year: 2½, 2, 3¼, 3, 4½, 3, 4, 2, 4½, 4, 6, 2, 5½ barrels. Other trees bear a heavy crop every other year. The average yield per tree from the third year to the twenty-sixth is about two barrels per tree, and from the tenth year to the twenty-sixth, three barrels.

"The Wealthy is one of the earliest and most productive bearers, but it does not become a large tree, and the maximum crops have not been as large as some other varieties. It begins bearing the second or third year after planting. One tree gave as much as nine gallons

# Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending October 18.

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

	CATTLE						CALVES					
	Receipts			Top Price Good Steers (1,000-1,200)			Receipts			Top Price Good Calves		
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	9,084	7,626	8,076	\$11.00	\$ 8.00	\$11.00	714	657	603	\$15.50	\$12.00	\$15.50
Montreal (Pt. St. Charles)	2,330	1,724	1,828	10.00	7.75	10.25	688	1,116	1,089	16.00	11.00	14.00
Montreal (East End)	2,250	2,334	2,244	10.00	7.75	10.25	598	908	484	16.00	11.00	14.00
Winnipeg	13,378	7,665	10,709	10.00	6.75	11.00	999	440	420	10.00	7.50	10.00
Calgary		2,492	2,142		6.00	10.00					8.50	9.50

	HOGS						SHEEP					
	Receipts			Top Price Selects			Receipts			Top Price Good Lambs		
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	7,643	9,742	7,913	\$18.75	\$11.35	\$18.75	7,656	8,817	8,123	\$16.75	\$12.25	\$17.25
Montreal (Pt. St. Charles)	2,124	2,142	2,574	18.00	11.25	29.10	3,020	3,003	2,950	16.25	10.50	15.75
Montreal (East End)	1,254	1,654	1,046	18.00	11.25	19.10	1,563	3,220	946	16.25	10.50	15.75
Winnipeg	3,287	3,241	2,327	17.25	10.25	17.50	1,162	454	1,082	15.00	10.25	14.75
Calgary		982	884		10.00	17.75		1,215	229		9.50	13.00

NOTE.—The total of the graded stock at each stock yard will vary from 1 per cent. to 5 per cent. of the actual receipts offered for sale. Any variation from this will be noted.

## Market Comments.

**Toronto (Union Stock Yards).**  
 Heavy shipments of cattle arrived at West Toronto during the week. In addition to the ninety-five hundred head that were on the open market, about two thousand head were consigned direct to local abattoirs. The bulk of the latter came from Winnipeg, there were also received from Winnipeg about four hundred head billed through to Buffalo, and a few loads billed through to points in Ontario. With sixty-three hundred cattle on the Monday market, trading was slow and inactive with prices down 10 to 25 cents except in the case of real choice cattle. Few of these were offered, the bulk of the cattle being medium and common quality, with the remainder largely of the feeder order. While trading was possibly a little more active on Wednesday and Thursday, prices barely held steady at Monday's decline and very few heavy cattle were on sale. One load went to a Hamilton abattoir at \$12 per hundred, two other loads sold at \$11.85, while those of medium quality realized \$10.75 to \$11.25. Butcher steers of one thousand and eleven hundred pounds sold as high as \$11 in a few instances, but the bulk of the sales was made under \$10.50. Handy-weight steers and heifers sold up to \$10, the bulk selling from \$9 to \$9.75, while those of common quality sold from \$7.50 to \$8.50 per hundred. Butcher cows of quality were steady and active at last week's prices, while a good steady demand prevailed for canners and cutters. The bulk of the bulls were of common breeding and sold from \$6 to \$7 per hundred. A fair demand prevailed for stockers and feeders and liberal shipments were made to Ontario points. Heavy feeders sold as high as \$10.75, while the bulk brought from \$8.75 to \$9.50. Stockers were lower than last week, and while a couple of loads sold at \$9.50, this price was considerably above the ruling figure. The best loads of Western stockers sold from \$8.25 to \$8.75, while those of medium quality sold from \$7.25 to \$8. Several hundred were shipped to Buffalo during the week. Calves were fairly steady, choice veal selling at \$15.50. A choice load of stocker calves averaging three hundred and seventy-five pounds, from Winnipeg, went to an Ontario farmer at \$10.00.

The lamb market held reasonably steady all week. On Monday, the bulk of the lambs sold from \$16 to \$16.50, while a few reached \$16.75. On Tuesday they were 25 cents lower, and moved more freely at the reduction on Wednesday. On Thursday the market was barely steady with quotations ranging from \$16 to \$16.50 per hundred. Light ewes are selling at \$10 to \$12 for killing purposes. Since the application of the Free Freight Policy of the Live Stock Branch, Dominion Department of Agriculture, ewes of any promise are being bought for farmers at prices ranging from \$13 to \$15.50 per hundred. Several loads were shipped out free of charge under this policy during the week.

Hogs on the Monday market sold at \$18.75 per hundred, fed and watered. On Tuesday prices ranged from \$18 to \$18.25, and on Wednesday from \$17.75 to \$18.25, with one load selling at \$18.35.

CLASSIFICATION	No.	TORONTO (Union Stock Yards)		MONTREAL (Pt. St. Charles)	
		Avg. Price	Price Range Bulk Sales	Avg. Price	Price Range Bulk Sales
STEERS					
heavy finished	90	\$11.25	\$10.75-\$11.50		
STEERS good	543	10.45	9.75-10.75	15	\$9.90
1,000-1,200 common	89	9.27	8.75-9.75	92	9.40
STEERS 700-1,000 good	980	9.55	9.00-10.00	3	9.25
common	1,086	8.44	7.75-8.75	444	8.60
HEIFERS Good	203	9.73	9.00-10.25	2	9.25
fair	527	8.50	8.00-8.75	46	8.35
common	322	7.50	7.00-8.00	186	7.10
COWS good	444	7.50	7.00-7.75	4	8.25
common	1,762	6.29	6.00-6.75	117	6.80
BULLS good	28	7.53	7.00-8.25	652	6.90
common	396	6.33	6.00-6.75	758	5.60
CANNERS & CUTTERS	662	5.50	5.00-5.75	4	8.25
OXEN	5			235	12.25
CALVES veal	646	14.00	13.00-15.00	453	6.90
grass	68	7.76	6.00-9.00		
STOCKERS good	534	8.45	7.75-8.50		
450-800 fair	547	7.30	7.00-7.75		
FEEDERS good	322	9.25	9.00-10.00		
800-1,000 fair	444	8.75	8.50-9.25		
HOGS selects	7,300	18.16	17.75-18.75	1,847	17.93
heavies	10	18.10	17.75-18.75	5	16.25
lights	157	17.15	16.75-17.75	160	16.94
(fed and watered) sows	164	15.62	15.25-16.75	104	13.75
stags	12	14.14	13.75-14.75	8	
LAMBS good	6,944	16.41	16.00-16.75	1,003	15.75
common	190	13.57	12.00-15.00	1,786	15.15
SHEEP heavy	2			18	10.60
light	338	11.27	10.00-15.00	76	10.95
common	172	7.30	6.00-9.00	137	10.45

On Thursday the market closed weaker at \$17.75 to \$18. The outlook is for lower prices.

Of the disposition from the Yards for the week ending October 11th, Canadian packing houses bought 202 calves, 179 bulls, 82 heavy steers, 4,230 butcher cattle, 9,067 hogs, and 5,096 sheep and lambs. Local butchers purchased 127 calves, 520 butcher cattle, 216 hogs, and 780 lambs. Canadian shipments consisted of 34 calves, 88 milch cows, 17 butcher cattle, 876 stockers, 530 feeders, 37 hogs, and 455 lambs. Shipments to United States' points consisted of 209 calves, 152 butcher cattle, 284 feeders, and 1,548 lambs.

The total receipts of live stock from January 1st to October 11th, inclusive, were: 209,415 cattle, 39,018 calves, 87,864 sheep and lambs and 335,879 hogs; compared to 208,888 cattle, 37,514 calves, 91,883 sheep, and 360,505 hogs, received during the corresponding period of 1916.

### Montreal.

The receipts of cattle showed a considerable increase over those of the previous week, nearly five thousand head being on hand. The quality of the stock as a whole was much better than that of the usual run for this time of the year although there was no improvement in

the finish. Practically all the steers offered for sale, would have been better if longer fed before being marketed for abattoir purposes. A case in point was two car loads of cattle which although sold on the Winnipeg market as stockers for eastern shipment, were re-sold on this market for butcher purposes, bringing \$8.35 per hundred pounds. Two of the best car loads of cattle received during the week came from the Eastern Townships, Quebec; these went straight from the cars on to the scales without even being offered for sale in the Yards. Most of the better class of stock, however, came from the counties of Lanark, Renfrew and Carleton, in Ontario. The bulk of the good butcher steers brought from \$9.75 to \$10 per hundred, while several good butcher cows sold as high as \$9. The run of canners and cutters was larger than last week, and was as a whole much better in quality. A number of heifers are being received but are not of good quality to be used for breeding purposes, and there is no loss to the country in having them go to the abattoir. Prices were steady on all classes of stock, and everything offered met with a ready sale. Receipts of calves were lighter than last week, but despite this, several car loads were shipped to Boston, Massachusetts. The quality of the veal calves

was better than usual and this class showed an improvement in price, the range being between \$10 and \$16 per hundred.

Receipts of sheep and lambs showed an increase over the previous week. Canadian packing houses were strong competitors with American purchasers and a greater proportion than usual of the sheep and lambs offered went to Canadian buyers. On account of this competition, prices were somewhat firmer, ranging from \$15.75 to \$16.25 per hundred for lambs of good quality while the bulk were bought up at \$15.60 to \$16.05.

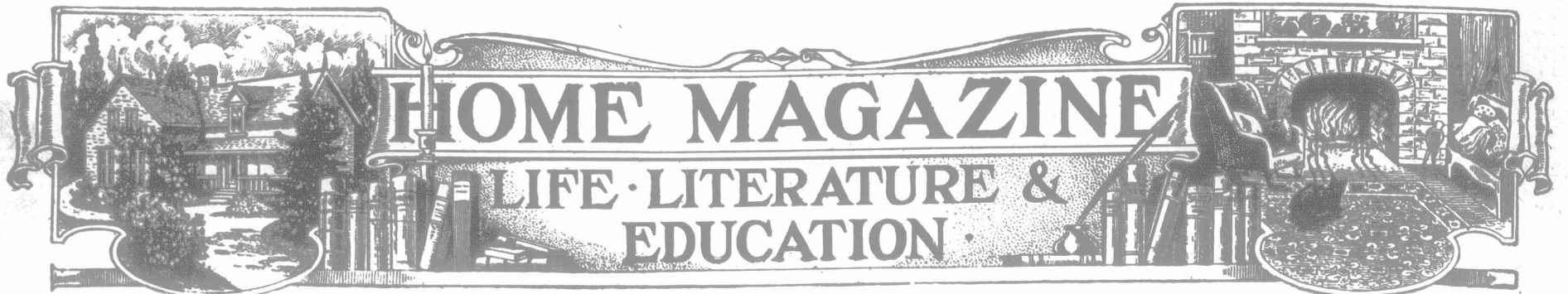
Prices for hogs, were slightly depressed during the week, and while quotations on Monday were \$18 fed and watered, this was reduced in the week to \$17.75.

PT. ST. CHARLES.—Of the disposition from the Yards for the week ending October 11th, Canadian packing houses and local butchers, purchased 475 calves, 449 canners and cutters, 700 bulls, 615 butcher cattle, 2,574 hogs, 206 sheep, and 1,365 lambs. Canadian shipments were made up of 6 canners and cutters, 22 butcher cattle and 21 feeders. Shipments to United States' points totalled 594 calves, 38 sheep, and 1,232 lambs.

The total receipts from January 1st to October 11th, were 37,241 cattle, 49,012 calves, 46,814 sheep and lambs

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### Autumn.

There is something in the autumn that is native to my blood—  
Touch of manner, hint of mood;  
And my heart is like a rhyme,  
With the yellow and the purple and the crimson keeping time.

The scarlet of the maples can shake men like a cry  
Of bugles going by.  
And my lonely spirit thrills  
To see the frosty asters like a smoke upon the hills.

There is something in October that sets the gypsy blood astir:  
We must rise and follow her,  
When from every hill of flame  
She calls and calls each vagabond by name.

### Noted Women. The Modern Amazons.

Mr. William G. Shepherd, in the *New York Evening Sun*, tells of visiting five of the wounded women fighters of the famous "Battalion of Death", in a Russian hospital. "What was the battle like?" he asked one of them. She replied: "I was very nervous just before the charge. We knew the order was coming and naturally we were just a little scared. But as soon as the orders to go forward came we forgot everything else in the advance.

"I could hear our girls yelling and shouting throughout the march forward. None of us were afraid once we got started. We were in the midst of a great fusillade of shots. Then terrific big shells began breaking all around us.

"We were again frightened a little when we first saw dead men about, but before very long we were jumping over the dead, and quickly forgot all about them."

"We couldn't tell what was going on anywhere," said a third girl in describing the final stages of the battle.

"Commander Butchkareff was everywhere, urging us to fight and die like real-Russian soldiers."

Then the girl told how the legion took its first prisoners.

"As we ran forward we suddenly came upon a bunch of Germans immediately ahead of us. It was only a second until we were all around them.

"They saw they were caught and threw down their rifles, holding up their hands. They were terribly frightened.

"Good God! Women!" they exclaimed.

"We saw wounded German soldiers raising themselves on their elbows and shooting," interjected another wounded girl. "We just forgot ourselves entirely. We were simply Russia, fighting for her life."

Although these latest achievements of the Russian women "defy all precedents in the history of womanhood", it is no new thing for women in Russia to do daring things for the liberty of their country and the destruction of the tyrants who for so long trod the nation under their feet. It was a woman, Vera Sasulitch, who in 1878 shot the mighty General Treppoff, one of the worst of them, and for the past forty years women have never been wanting where the question of the sufferings of Russia has been under discussion. In order that they might understand better the affairs of the country they have flocked to the schools and universities and to-day the Women's Battalion numbers many of the cleverest women of Russia.

Mme. Butchkareff is of peasant origin. The story of her life is told in the *London Daily Telegraph* as follows:

Vera Butchkareff, or simply Yashka, as she has been christened by the men of the regiment to which she belonged, got much of her warlike spirit from her father, who fought through the whole of the

Turkish war and was left a cripple for life. Her mother was a hard-working woman, with five children, of whom Yashka was the eldest, and she had to go out washing and cooking to earn enough to clothe and feed this flock.

At the age of five Yashka was sent out as nurse to a baby of three. And from that time she has never stopped working. She looks none the worse for it. Finely yet strongly built, with broad shoulders and healthy complexion, she can lift 200 pound with the greatest of ease. She has never known what fear is.

Not long ago she remarked that during the last two years she had lived through so much that there remained but one danger yet to experience, that of flying. Just as she was saying that an aviator came up and offered to take her for a flight, and before the day was out she had exhausted her list of perils.

When she was sixteen years old her parents seized the first opportunity of getting her married. She did not know the man, but luckily as time wore on they grew very fond of each other, and were very happy. At first they both served in a shop, and thanks to their perseverance and frugality they were soon able to open a small shop of their own. But just as they began to prosper the war broke out, and he was one of the first to be called up.

She was very keen on accompanying him as a soldier, but he begged her to stay behind and work for her parents, whom they had been keeping.

She was always ready for any daring venture, and it was with great reluctance that she stayed at home in compliance with her husband's wish. Time passed,

trench was captured. She has received two St. George's medals and two St. George's crosses for various feats of bravery. At the end of the two years she was legally admitted into the 28th Polozk Regiment.

She was presented to Mr. Kerensky for her bravery, and after hearing all her experiences, the Minister of War asked what wish she would like to have granted. She straightway said: "I want to form a woman's volunteer battalion, which is to lead men into battle if they will not go of themselves." The idea was approved by Kerensky, and, with the sanction of the commander-in-chief, the battalion has been formed.

Although Mme. Butchkareff is probably the best-known woman fighter, says the *St. Louis Post Dispatch*, the first of the frailer sex in Muscovy to take up arms and fight by the side of the male soldiers was Mme. Marlo Malko, the wife of a junior officer in the Russian Army. This account says:

She was captured by the Germans in the early days of the war and is still a prisoner as far as is known.

When war was declared Mme. Malko cut off her hair, donned a uniform, and joined the Army. All the rigors and hardships of the various battles and marches in which she took part did not bother her in the least and the secret of her sex identity was kept to herself.

Then she was captured, together with several hundred other Russians, and sent to a sanitation camp. All the prisoners were forced to go through a disinfecting station, first removing all their clothing. When Mme. Marko's turn came she balked and insisted that a bath in her

visited the barracks of the command in Torgvay Street found posted at the gate a little blue-eyed sentry in a soldiers' khaki blouse, short breeches, green forage-cap, woman's ordinary black stockings, and neat, heavily soled shoes. The sentry was Miss Mary Skrydloff, daughter of the former commander of the Baltic Fleet and Minister of Marine. The Skrydloff family is one of the oldest and most distinguished in Russia.

Inside there were four large dormitories, the beds without bedding and heavy overcoats flung over them. In the courtyard 300 girls were at drill, mostly between eighteen and twenty-five years of age and of good physique and most of them pretty and refined in appearance. They wore their hair short or their heads entirely shaved. They were being drilled under the direction of a male sergeant of the Volynsky Regiment, a famous Russian military organization, and were marching in an exaggerated goose step.

Commander Vera Butchkareff explained that most of the recruits were from the higher educational academies and secondary schools, with a few peasants, factory girls, and servants. Some married women were accepted, but none who had children. The commander said:

"We apply the rigid system of the army before the days of the revolution, rejecting the new principle of soldier self-government. Having no time to inure the girls gradually to hardships, we impose a Spartan régime from the first. They sleep on boards, without bed-clothes, thus immediately eliminating the weak and those who require comforts. The smallest breach of discipline is punished with immediate and dishonorable discharge.

"The ordinary food of the soldier is furnished by the guards equipage corps. We arise at four and drill daily from five to eleven and from one to six. The girls carry the cavalry carbine, which is five pounds lighter than the regulation infantry rifle. On our first parade I requested those whose motives were frivolous to step aside. Only one did so. Later on, however, many who were unable to stand the privations of a soldier's life left us.

## Hope's Quiet Hour

### Worthy of Hire.

The laborer is worthy of his hire.—  
S. Luke 10: 7.

"O the rare, sweet sense of living, when one's heart leaps to his labor,  
And the very joy of doing is life's richest,  
noblest dower!  
Let the poor—yea, poor in spirit—crave  
the purple of his neighbor.  
Give me just the strength for serving,  
and the golden present hour!"

Our Lord has pointed out the great difference between a shepherd who is the owner of the flock and a "hireling", whose own the sheep are not. The idea of deserting his sheep, when danger threatens, does not enter the mind of the good shepherd. But, when the "hireling" sees a wolf coming, he thinks first of his own safety. The very name of "hireling" is unpleasant to our ears—since we read the parable of the Good Shepherd—for it seems applicable to one who is working only for his hire and takes no interest in his work. The hireling shepherd in the parable cared nothing for the sheep. He was working only for pay—and, if the wolf killed him, the pay would be lost. Of course he ran away when his position became a dangerous one.

None of us want to be "hirelings", in that sense, for we don't admire a man



Russian Women Wounded on the Eastern Front.  
Some of the famous "Battalion of Death." Underwood & Underwood.

and after long waiting she got the news that he had been killed in action on May 28, 1915. At once she went to her parents, and said: "I have decided to go to the front, and you will either hear of my death or I shall return to you in honor and glory. I trust in God." And no persuasions were of any use.

For two years she has lived in the trenches and fought like a man. She has been wounded three times—in her arm, leg, and back. In the Lake Naroch battles there was a time when all the officers were killed and the men lost courage and lay down, too frightened to attack. Then she rose up and dashed forward calling on them to follow her. Every one obeyed her command, and the

case was entirely unnecessary. The Germans' suspicions were aroused and the truth leaked out.

Commenting on the fighting of the Battalion the *St. Louis Post Dispatch* says:

From the most disgraceful page in the history of new Russia, as it will be written for posterity, will stand out one bright, flaming spot—the gallant stand of the Women's Regiment—"the Command of Death"—in the midst of an ebbing wave of cowardly, panic-stricken men units. For pure courage and coolness the action of the Butchkareff detachment near Vilna on that terrible July day has seldom been equaled.

The Associated Press correspondent who



who deserts his post in time of danger. But we all want to be worthy of hire. When our Lord sent out His apostles He told them they need not take food, or extra clothing, or money with them because, He said, the laborer is worthy of his hire. Though they were volunteers, they might expect reasonable payment for their services. St. Paul has also told us that, when a man is doing good work, the reward he receives for it is not to be considered a gift but a "debt"—Rom. IV:4.

Whether men pay just wages or not, God sees to it that we reap what we have sown. Sin brings the wages of misery and spiritual death; righteousness receives the reward of joy and life. Those who are not forced to work hard for daily bread feel it a great privilege to spend their time in volunteer service—especially in these war-times. If they are worthy of hire they do not fail to receive it, though they may give away money instead of heaping it up. They win happiness, and happiness is more valuable than wealth.

God warns masters against the injustice of defrauding their servants of the wages they have honestly earned,—is it likely, then, that He will deal unjustly with His willing and faithful servants? Wages must be paid when due; for the master must answer to his divine Master: "Woe unto him, that useth his neighbor's service without wages, and giveth him not for his work."—Jer. 22:13.

A man who is hired to work need not be "an hireling", in any base sense. The "hireling" is working only for money. The man who says "I won't do a stroke of work more than I am paid for!" is "an hireling"—and such a man is not worthy of his hire. No one wants an employee who takes no interest in his work.

We all know people who are "slackers", and we all know people who put heart into their work and try to really earn their wages. Watch the Carpenter of Nazareth as He makes a wooden cradle for a neighbor's baby or a rough plough for a farmer of Galilee. How glad He is to be doing something useful, and how brightly He smiles as the day's earnings are poured into His mother's lap. Jesus was worthy of hire—doing work for the men who employed Him—and His touch has ennobled all honest work. He was hired, but was never "an hireling." He did, with whole-hearted willingness, the work His hand found to do. If we are to be worthy of hire we must be glad to have the opportunity of service. There is a vast variety of work to be done; but it is the spirit in which it is done that matters most. God calls some women to nurse wounded soldiers in France, and He calls other women to earn their bread by "going out to service", as it is called.

We are all called to serve in the palace of the King; and the remembrance of our Master's presence will fill every day with gladness if we are serving Him faithfully.

"The busy fingers fly, the eyes may see Only the glancing needle which they hold, But all my life doth blossom inwardly And every breath is like a litany While, though each labor like a thread of gold, Is woven the sweet consciousness of Thee."

Some people complain—perhaps with justice—that they are paid very poor wages. If that is your position—if you are worth more to your employer than he is paying you—the gain is yours and the loss his. You are gaining in character and he is losing in character, if you are giving faithful service and he is wilfully defrauding you of the money that should be yours by right,—and character is worth more than all the money in the world.

But, if you are being paid good wages and are wasting your employer's time by idleness, then you are unworthy of your hire and are daily flinging away character for the sake of money—a terrible tragedy for you. What can it profit you, when Death loosens your grip on your bank-book,—to have piled up millions of dollars, if you have sold your highest self for money?

When a congregation accepts faithful service from a minister, without attempting to make him a reasonable return, the degradation and loss of honor are not his but his people's. No one can afford to be unjust; for, even in this world, honest dealing pays best in the end.

A country doctor may spend years

in self-sacrificing service. He may get up from his warm bed, on many a stormy night, and drive for miles in the teeth of a raging blizzard. He may have saved your life, or the life of one very dear to you; and you may not be even trying to pay the money you owe him. If that is the case then yours is the shame and loss. Was the doctor "an hireling" when he fought death for you and yours? Was he thinking of his pay, or of the joy of saving a life? If he was doing good work he could not have been thinking first of the amount of his bill.

The other day I heard someone say that a large proportion of the army nurses went overseas for the sake of the money they would get for their work. Of course we can't look into their hearts; but I feel sure the great majority of those devoted women care more for the opportunity of splendid service than for pecuniary profit. They should be well paid for their exhausting and dangerous work—the country would be disgraced if they were not—but no nurse worthy of the name puts self-interest first and her patient's welfare second.

A cynical collector of curiosities placed in his museum a Chinese god labelled, "Heathen idol," and next to it a gold coin marked "Christian idol." In these days, when thousands of men and women are giving time and strength and money—even life itself—for the sake of others, we should feel ashamed to join the ranks of the disgraceful worshippers of "the almighty dollar."

Listen to this story of a stewardess

who was "worthy of hire", giving faithful service without thinking of pay.

Mary Rogers was stewardess of the Stella, which was wrecked in 1899. She served out lifebelts to the women and children under her care, retaining one for herself. Then, as the ship was sinking, she saw a woman who was unprovided with a belt. Without a word, she unfastened her own belt and clasped it round the passenger's waist.

The boats were filled, but the crew of the last boat to leave the ship urged the stewardess to jump in.

"No," she said, "If I get in the boat will go down. It is too full already."

Then she lifted her hands to the Master she had served so loyally, saying: "Lord save me!" and went down with the ship.

Even "an hireling" can do pretty fair work when all is plain sailing. The test of a worker is difficulty and danger. One who is worthy of his hire is not thinking chiefly of the wages he is earning, but is determined to do his work faithfully as the servant of Christ.

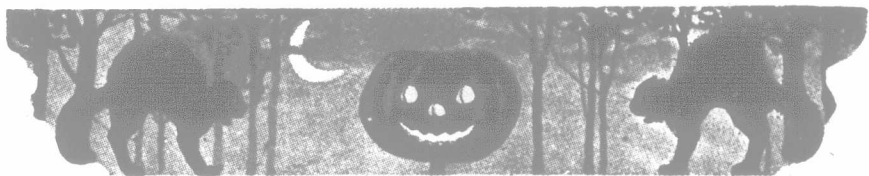
"Thank God for the willing hands That are honest, and brave, and true; That lie not folded, but labor hard To do what there is to do."

DORA FARNCOMB.

**For the Needy.**

A dollar from M. B. P.—one of our Quebec readers—was dropped into the Quiet Hour purse yesterday. Its stay here was very short, for in a few hours it went out to help a poor widow with seven young children.

HOPE.



**The Beaver Circle**

**A Hallowe'en Party for Boys and Girls.**

Faye Jones gave a party on Hallowe'en last year. Perhaps you would like to hear about it. And perhaps you would like to give one something the same for your own little friends this year.

First she made up a lot of invitation rhymes, and wrote them out very neatly on pretty yellow note paper. One of the rhymes was this:

"Come to my bogey party,  
Just about at eight  
On the night of Hallowe'en;  
Be sure you don't be late.  
And dress up like a bogey.  
Please do this for me,  
And I'll do the same for you  
Oh what fun 'twill be!"

That was why all the girls and boys came "dressed up", some like witches, others like ghosts, and others like "just bogeys" with cloths tied over their heads with holes cut for mouths and eyes. All who did not wear these bogey faces wore short black masques that came down as far as the mouth, with holes for the eyes, and part of the fun was in guessing who each was. As everybody changed his or her voice, and talked in squeaks or growls, this was not so easy to do.

One of the games was just the old one of "Catch the handkerchief", only a loose flying bogey made of white cotton made into a loose floppy doll, was used instead of a handkerchief, so it was "Catch the bogey!"

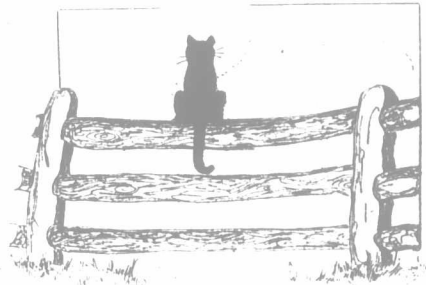
But every boy and girl knows plenty of games to play.

When lunch-time came all were on their very best behavior, and tried to show what nice mothers they had by having nice "manners". Lunch time does show bad manners so shockingly, doesn't it? No one forgot to say "Please" and "Thank you", and not a boy helped himself from any dish until the girl next to him had been served.

Every place at the table was marked by a bogey that Faye had made, with a body of potato, carrot or turnip; legs of tooth-picks stuck into a peanut for shoes; arms of toothpicks with raisins for hands, and a head of a piece of turnip or potato, with cloves stuck in for eyes and mouth. Each bogey was propped

up against a card on which was written the name of the girl or boy who was to sit at that place, and so there was no confusion in getting the table filled.

After supper, Nora Tilley, who knows plenty of fairy and witch stories told one of them, and then all went home, feeling that a very pleasant evening had been spent.



Thomas Cat.

"And they say the third rail is dangerous." Try this for a drawing lesson some day.

**A New Army.**

HAVE you heard that "Uncle Sam" (I am sure you know what is meant by "Uncle Sam") is to have a new army?

The soldiers in this army will all supply their own uniforms; indeed their uniforms all grow right on them, so that will not cost Uncle Sam much, will it?

None of the soldiers in this army will volunteer; they are even likely to be a good deal puzzled about it all; but they are expected to be very good and faithful soldiers for all that.

Not one of them can speak a word of French—nor a word of English for that matter—yet they understand English very well, and have a speech of their own which they use with one another.

Now, I wonder if you have guessed by this time, that Uncle Sam's new army is to be made up of dogs? It is, just that, for dogs are of much more use in this war than horses. Being so much more like human beings they can understand more, and can be trained to do many useful things.

Since the beginning of the war Belgian and French and German dogs have been doing this work, and many of them wear medals for "signal bravery". So valued are they, too; that a dog hospital has been founded in Paris, with nurses and

dog-doctors who look after the wounded doggies that come back from the front.

Uncle Sam's dog army will be made up of 1,000 war dogs, and so important has it been thought to have them that a bill for the training of the dogs has been introduced into Congress and endorsed by the Secretary of war.

Many dog-owners all over the United States are sending the finest and wisest animals they have to "enlist", so there will be all sorts, from beauties that have won prizes at the fairs to strong big huskies from Alaska. Indeed a team of huskies from the Hudson Bay is ready to start at once.

The Germans were the first to use dogs in the war; when their army was mobilized in July 1914, eight dogs were included. Now there are many thousands among the armies in Europe, and so quick at learning are they that they are said to do whatever they have to do "like Prussian infantrymen."

They haul provisions over the snowy mountain roads, and carry first-aid to wounded men. Also they search for wounded men, paying no attention at all to dead soldiers, but barking furiously when they find a living one, so that stretcher-bearers and an army surgeon may come. Then there are patrol-dogs, who go out over "no man's land" scouting for the enemy. These dogs never bark. When they scent an enemy patrol they bristle and stand at attention if their masters are near, or race back to "tell the news." Occasionally, too, the dog will spring on a man and hold him down until help arrives.

The dogs trained to carry important papers are very trustworthy. When all other communication is cut off, the dog can often get through, and, as someone has said, "once started on his mission nothing can stop or delay this true-steel little messenger, save death."

Aren't dogs wonderful?—that is, if you give them half a chance. The kinder you are to them, and the more you talk to them, the more clever they become, until really they seem to understand almost everything you say.

I am sure we all wish good luck to Uncle Sam's new army. After a while, quite likely, you will see them and their work in the "movies."

**The Girl's Creed.**

1. I believe that I have a right to be happy every day.
2. I believe that God's blue sky and God's green earth are a part of my inheritance.
3. I believe that I have a right to love little chickens and ducks and lambs and puppies, as well as dolls and ribbons.
4. I believe that I could take care of these things as well as my brother, who does not love them as much as I do.
5. I believe that I should love to keep house better than anything else, and I only wish they taught house-work at school.
6. I believe that keeping a garden "all my own" would be great fun, and I believe that I could be very happy in giving away the flowers and in cooking the vegetables that I raised myself.
7. I believe that I could study real hard at my grammar and geography and arithmetic and spelling if I could do cooking or sewing with the other girls in the afternoon.
8. I don't want to go to town and leave my father and mother and my brothers and sisters to live in the country, for I know I should miss them all, and the trees and the creek and the garden grass and the old woods and everything; but I want to do something more than washing dishes and carrying water. I want to learn everything I can.
9. I believe I can learn to sew and cook and do laundry-work and do them well. And I want to learn them and I want to do them well.
10. I believe in the square deal for girls as well as for boys, and I want everybody to be happy all the time—the old as well as the young.—Woman's Century.

**Little Bits of Fun.**

The Frenchman did not like the look of the barking dog barring his way. "It's all right", said his host, "don't you know the proverb: 'Barking dogs don't bite?'"

"Ah, yes," said the Frenchman, "I know ze proverbe, you know ze proverbe; but ze dog—does he know ze proverbe?"

Wasn't She Right?—The lesson in natural history had been about the rhinoceros, and the teacher wanted to know how well the lesson had been learned. "Now, name something," she said, "that is very dangerous to get near to, and that has horns."

"I know, teacher, I know!" called little Annie Jones.  
"Well, Annie, what is it?"  
"An automobile."

Dear Puck and Beaver.—Well it is kind of long since I wrote to your Circle. I suppose all of you are glad summer is here and that we are at the harvest. We are on a very big farm called Meadowside Stock Farm. It contains two hundred and twenty-five acres; there is quite a lot of work on it. We often go out hunting in the bush which is not far from our place. There are a lot of big birds in our bush. I made a collection of birds' eggs, wood, seeds, weeds, and insects. I got sixty-five kinds of eggs, fifty kinds of wood, twenty of seeds, and fifty kinds of weeds. They were hard to get. Well I think I will close with a riddle:

If the Kaiser and his son went up a tree what kind of fruit would they be?  
Ans.—A rotten pair.

I remain,  
FRANK RALEIGH.  
R. R. No. 3, Mitchell, Ont.  
Hoping some Beaver will write me.

**Junior Beavers' Letter Box.**

Dear Puck and Beavers.—This is my first letter to your Circle. I am a little girl nine years old. I go to School Section No. 4, Saugeen. Our school is situated on the Goderich road two and one-half miles from Port Elgin.

I have four sisters but no brothers. I live on a farm and one day we found a nest of six little rabbits. A few days later we found the mother lying dead. Later we went to the nest we found four dead from starvation. The other two we took to the house and fed with a spoon until they would drink milk from a saucer. Later we fed them on tender alfalfa and other green food, but there was nothing they liked better than a piece of sweet cake which they would eat from our hands. We named them Betty and Billy. One day one of the horses stepped on Betty and killed it. When the warm days came and we were allowed to run on our bare feet Billy used to surprise us by putting his cold nose on our bare legs. He would not let us touch him but would eat out of our hand any time. He lived to be two years old and weighed 5 1/4 lbs. The next year we had another little one for a pet but it was bigger when we found it and was never such a pet as the other one. Well I guess it is time to say good-bye to the Circle until another time.

Your sincere friend,  
NELLIE MUIR.

R. No. 3, Port Elgin, Bruce Co., Ont.  
This is a very nice letter for a little nine-year-old girlie.—P.

Honor Roll: Mildred Holden, Beulah Atkins, Harold Hoover, Mary Rae, Glen Forster, Alma Colborne, Rosanna Lucas, Gregory Rawlings, Carl Lancaster.

**Beaver Circle Notes.**

Mildred Holden—a Junior Beaver—Paquette, Ont., wishes Beavers to write to her.

**Riddles.**

Why is a tin can tied to a dog's tail like the end of the world? Ans.—Because it is bound to a cur (bound to occur).—Gregory Rawlings, Petrolia, Ont.

Why is the letter B like fire? Ans.—Because it makes oil boil.

What are girls hired in watch factories for? Ans.—To make faces.—Alma Colborne, Bridgen, Ont.

If a man has sixty patches on his trousers what is the time? Ans.—Time to get a new pair.

What would a window say if a tree broke through it?—Ans.—Tree mend us

(Tremendous!)—Rosanna Lucas, Lefroy, Ont.

When I was crossing London bridge, whom did I meet but old rusticue, with pins and needles in his back. What was his name? Ans.—A porcupine. (wouldn't it be better "through a wood"?—P.)  
—Carl Lancaster, R. 1, Bronson, Ont.



**A Brave Doggie.**

This little French dog "Poupouille", during his two years at the front, has been wounded twice. He wears a little coat banded like that of a regular French soldier, showing the length of his service in the army.  
International Film Service.

**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.]

**Hallowe'en.**

M. B., Oxford Co., Ont., writes as follows:

"Would you be so kind as to tell me through your valuable column how to spend the evening at a Hallowe'en party as we would like to get up one to raise money for our boys at the front."

Delighted to do anything in the world to help make money for "our boys at the front."  
Why not try a Bats, Cats and Hats Party. It is managed somewhat as follows, although you may introduce any original idea that strikes you.

Send out invitation cards, with a small black cat or a pumpkin painted or pasted on the corner of each. On the afternoon of the party have a committee of girls assemble to make a collection of materials for a hat-trimming contest—black glazed cambric, orange cambric or crinkle paper, green crinkle paper, light feathers or batting for stuffing, old hats to be trimmed, also real carrots, beets, onions corncocks, grain, etc., which are to be used, the vegetables whole, if small, or to be sliced if large.

As the guests arrive at the gate someone who is concealed hoots like an owl. Half-way up the walk a sheeted ghost appears, and points in ghostly fashion to the house, which appears quite unlighted save for two grinning jack o' lanterns, made of pumpkins, each side of the door.

As the guests reach the door, and before they have time to knock, the door slowly opens, where the whole house is seen to be very dimly lighted with candles with green shades and more pumpkin jack o' lanterns. Inside another sheeted ghost takes the money and points up the stairway or towards the room elsewhere in which wraps are to be left, and upstairs a third ghost directs the women and girls to their room and the men to theirs.

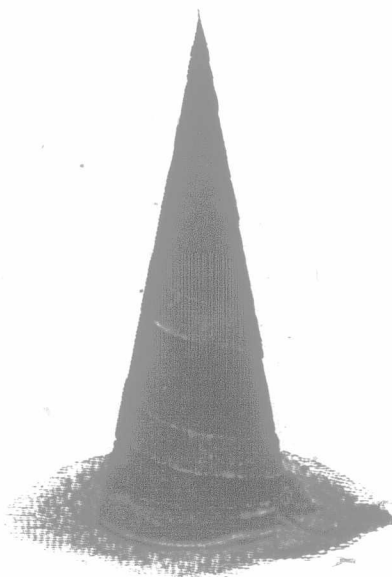
Downstairs the whole receiving committee, in the rooms where the fun is to go on, may be ghosts or witches with

tall pointed caps and brooms or staves—perhaps it is better to have them witches, as then they can talk.

All the old-fashioned Hallowe'en games, and any new ones preferred may now be brought on, and last of all, just before lunch is served, the hat-trimming contest. All must compete, boys and girls, men and women. Leave each to his or her ingenuity in trimming, and the result will be hats ludicrous, or pretty, or becoming. Some may be made to represent pumpkins, another may have a stuffed black cat on top, yet another may represent a large bat, while others may be trimmed with grain or fruit or vegetables in any way liked. Needless to say, very large needles and coarse thread must be supplied, also some old hat-wire, and several pairs of stout scissors. A prize may be given for the prettiest hat, and another for the most ludicrous. The hats must be worn during luncheon.

The rooms for such a party as this should be prettily decorated with festoons of grain, grapes and autumn leaves, with red apples, mountain ash berries and small pumpkins and red apples to give color. Also in one corner, made into a mysterious looking booth, there should be the inevitable fortune-telling witch or gypsy, who charges five or ten cents for telling fortunes from the hand or tea-leaves.

In the dining-room a witch made of a large bottle dressed in full skirt shawl and peaked cap, may be used as a centerpiece. All the things for the luncheon may be placed, ready, on the table, and at a smaller table, someone may pour tea. Much confusion will be saved, in such a large assemblage as this is hoped to be, if plates are not used. Simply



have the waiters carry the cups of tea to the guests, then the plates of cake, etc., from which pieces are taken and placed on the saucer beside the cup. This is the method invariably adopted in cities now, and it has much to recommend it. Of course the sandwiches, cake, etc., must be cut small enough to rest on the edge of the saucer. If preferred small plates may be used instead of the saucer, the cup being put on the plate.

Instead of having the lunch served this way, one room may be made into a sort of cafeteria, with counters made with tables or large packing boxes, all prettily decorated with autumn things. Here people may choose what they want to eat, but must buy everything separately—a very good way to make money. In this case the fee at the door should be very small, not over ten cents. In the first case it may be 25 cents. If the cafeteria plan is adopted many things may be sold—cider, baked beans, pumpkin pie, peanut sandwiches, meat sandwiches, apple pie, ice-cream, cheese, doughnuts, cake—but people, unless the very old, must eat standing, unless the place is very large and seats and small tables with chairs can be provided in other parts of the room or hall. In this case it is well to have plenty of trays upon which each may carry what he or she chooses to a table. This room, of course, must be well lighted, and very prettily decorated. Signs, in glaring black and white which may be as foolish as desired, may be placed above the counters. For example:  
"Do not eat the hole in the doughnut."  
"No flirting with the salesgirls allowed."  
"Have you had your fortune told?"  
Another idea for the luncheon party is to make a sort of box social of it. In this case the usual way of each girl

taking a "box for two" is resorted to, but the men instead of bidding on the boxes, are required to bid on the "lady's shade." They are taken into a darkened room which has a sheet suspended across it. Behind the sheet is a lamp. The ladies go in turn between the sheet and the lamp, and the men bid on the shadows, a part of the evening which is likely to be productive of fast and furious fun, besides being especially appropriate for Hallowe'en.

**Some Hallowe'en Games.**

1. Ask the guests to write a "poem" from 2 to 12 lines long on something connected with Hallowe'en. Read the poems aloud, and take votes for the best, giving a prize which may be a box of crisp doughnuts or a pumpkin pie.

2. Have a ghost dance, sheeted ghosts being required to execute a step-dance for a prize.

3. Fill a clothes-basket with ears of corn, and let the guests be blindfolded in turn and take a cob. A fine large full ear denotes prosperity for a twelvemonth; a thin one, no luck at all; a short one, a gift; a tasseled ear, great joy; a red one, love.

4. Have an immense pumpkin made of yellow cambric put around a barrel and stuffed, between the cotton and the barrel, with straw, to make it bulge. Fill the pumpkin with tiny packages, each containing a gift, tied so as to have some loops of string. Have a short rod with line and hook, and let the guests "fish" for the packages, which may contain all sorts of things, sensible or ridiculous—an all-day-sucker candy, a package of safety pins, 2 spoons of thread, a pair of suspenders, a tiny scissors, a doughnut, a walnut-shell glued together with a piece of sage advice written on a paper tucked inside. But one's own ingenuity will suggest many others. This may be made a money-making affair by charging ten cents a "fish".

**Plant Queries.**

Dear Junia.—Will some kind reader answer the following questions:

Have taken several slips from Gloxinias which seem to be growing all right. Do they require rest the same as old plants, or should they be kept growing through this winter?

Have a large Hydrangea hortensis which I cut down in September. Which is the better plan: to keep it growing or set away in a cellar during the winter? Thanking you for all the helpful hints we get through the Farmer's Advocate.  
Shell Co., N. S. SUBSCRIBER'S WIFE.

Prof. Bailey says of Gloxinias: "After flowering the leaves begin to mature, when water should be gradually withheld. As soon as the leaves have all ripened off,



the pots should be stored away for the winter, in a temperature of about 45 degrees, giving just enough water to keep the tubes from shrivelling. Towards the middle of February they will show signs of starting new growth, and a batch of those which seem most active should be started at this time. The remainder should be held back another month; this will give a much longer period of blossoming." You do not need to "rest" the slips.

He says also of the Hydrangea hortensis that, after the leaves have fallen after frost the plants should be removed to a frost-proof cellar and kept rather dry until spring, when they should be repotted in new soil and the growth of the last year cut back to 1 or 2 pairs of buds.

**The Worn Doorstep.**

M. B. P., Que., writes me that since my screed on "scrap-books", she has three on the way. She concludes: "Have you read The Worn Doorstep, by Margaret Sherwood? It is a beautiful story."

No, that is a pleasure to come. The book was recommended from the pulpit

of a church here. It is pleasant to hear from you about books you are reading, —when the choice is good.

Falling Hair.

For "Country Girl", Oxford Co., Ont. Massage your scalp with your fingers every night, and apply a good hair tonic to the scalp, rubbing it in well. Hair must be kept clean to be healthy. It should be washed at least once a month. Use tepid soft water and a good, mild soap, rinsing it out well and drying quickly by shaking and fanning it. This treatment should in time prevent your hair from falling.

Mountain Ash Berry Jam.

Some weeks ago someone asked me if jam could be made from mountain ash or rowan berries. Since then I have heard that jam can be made of these by boiling them, putting through a colander and adding sugar for the re-boiling, as usual. The jam is said to be somewhat bitter, like that from bitter oranges.

While Grapes Are In.

Grape Catsup.—Wash and stem the grapes. Heat them very slowly and when soft put through a colander. Return to the kettle, and for every 5 lbs. of grapes, weighed before cooking, add 3 lbs sugar, 2 cups vinegar, 1 teaspoon each of black pepper, cinnamon and allspice. Boil for 1 hour, then bottle while hot.

Grape Jam.—Separate skin from pulp, keeping them separate. Put the pulps in a kettle with 1 cup water. When soft put through a colander. Add the skins to them (some put the skins through a chopper) and weigh. To each pound add 3/4 lb. sugar and enough water to keep from burning. Cook slowly 3/4 hour. A delicious jam. If the grapes are not too ripe they thicken better.

Grape Jelly.—Use grapes that are not too ripe. Heat until soft then mash and drain through a thin jelly bag. Measure, and to each pint allow 2 cups sugar. Heat the juice in a kettle, boiling rapidly for 20 minutes, then add the sugar, which has been heated in the oven, stirring until dissolved. When it comes to a boil take off and fill the glasses, which have been dipped in hot water. When cool cover with melted paraffin.

Spiced Grapes.—Spiced grapes, to use with cold meat, can be made by adding a little vinegar and spices to either grape jam or jelly.

Grape Cobbler.—Pick the grapes, wash them, separate pulps, then soften over the fire and put through a colander to remove seeds. Add the skins to the pulp. Line a deep pie-plate with good pastry, put in the grapes and sprinkle with sugar to sweeten. Put on the top crust; cut slits across the top and fold back to have an open square in the middle. While the pie is baking make a sauce of butter, sugar and a teaspoonful of boiling water. Stir well over the hot water and flavor with lemon, cinnamon or nutmeg. When the pie is nearly done pour the sauce in the hole in the top and finish baking. Serve very hot.

The Scrap Bag.

Garden Notes.

Fall spading or ploughing helps to kill the white grub, as exposure is fatal to it.

Endive roots may now be dug up and stored in sand for winter forcing. Green salads in winter help to keep good health.

Dig up some parsley roots and plant them in pots. They look pretty in the kitchen window and provide a garnish when needed.

Plant rhubarb roots and mulch with a dressing of straw manure. Rhubarb may be forced for winter pies in a light cellar.

Leave some parsnips, salsify and artichokes in the ground for use in early spring.

Dig up canna, dahlia and caladium bulbs, dry them off, remove the frozen tops and store in a cool place.

Put protective material, leaves, straw or loose, strawy manure, over tender roots. Put brush over to keep the leaves down.

Geraniums for the garden will keep until spring in a cool cellar, if taken up and hung up by the roots. Or they may be cut back somewhat and potted.

Roots of plants for next year may be planted now, or moved to another place in the garden if necessary. Sometimes it is quite necessary to divide roots. The iris, in particular, needs dividing frequently.

Start Bulbs.

Procure paper narcissus bulbs and set in a glass dish of water, with small stones or moss fibre to hold the bulbs in place. Keep in the dark for a few days then bring to the light. They will grow quickly and bloom splendidly. By starting them at intervals of 2 weeks a succession of bloom may be kept up, with no more trouble than to add a little warm water from time to time. Freesias also may be grown, preferably in soil, without putting them away for root development. The other bulbs, hyacinths, tulips, daffodils, jonquils, crocus, lily of the valley need to be left growing in the dark in the cellar, or buried outside in the yard, from 6 to 8 weeks, to develop roots. If brought up too soon they fail to flower properly. Among the prettiest vessels for flowering bulbs are those of dull green, blue or yellow pottery.

Flowers for Winter.

A country home can rarely indulge in costly palms and similar decorations for the winter. It is not necessary, because a few fresh bouquets of Christmas roses (hellebore), with clippings from your barberries and your evergreen mahonia and your hemlock hedge will carry you well into midwinter. Our best preparation for the white months is to dig a few of our common May-flowering shrubs in November, place them in a cool cellar or outbuilding for a few weeks to rest, and then, as needed, bring into the house. It is not necessary that these shall have anything more than simple boxes to hold them during their residence in the kitchen or family room. After three or four weeks of waiting in a sunny window they will burst out into bloom quite as gloriously as in May when out of doors. The best shrubs for this forcing purpose are the common lilacs, some of the spireas, the mock oranges, deutzias, and the Judas tree. About three weeks before you desire bloom, bring a plant, well-boxed and watered, into a warm, light room. Keep it well watered and occasionally turned before the window, and the buds will soon begin to show themselves. I have lilacs in mid-winter that perfume the whole house. The yellow-flowered ribes, or native currant, is specially good for our purpose.

After the flowers have decayed, set the boxes back into the cellar, and in the spring into the ground. It will take a year of recuperation before they will again be strong enough to make flower buds and be fit for another winter forcing. Of course we have to select small bushes, and this is our chief trouble. Lilac bushes are generally too large, or else mere suckers, but a row of these can be had in preparation along the side of your garden. It is not quite easy to determine flower buds from leaf buds on the lilac, but as a rule flower buds are much rounder and fuller. In addition to shrubs, be sure to dig one or two clumps of hemerocallis fulva, or yellow day lily. This plant is peculiarly good for forcing. It gives a succession of richly-perfumed, lemon-yellow flowers during a full month or six weeks. I have had over eighty flowers in succession, upon a single box." E. P. POWELL, in "The Country Home."

Little Sydney had reached the mature age of three and was about to discard petticoats for the more manly raiment of knickerbockers. The mother had determined to make the occasion a memorable one. The breakfast-table was laden with good things when the newly breeched infant was led into the room.

"Ah!" exclaimed the proud mother, "now you are a little man!" Sydney was in ecstasies. Displaying his garments to their full advantage, he edged close to his mother and whispered "Can I call pa Bill now?"—Philadelphia Public Ledger.

The Dollar Chain

For the soldiers and sufferers because of the war.

Contributions from Oct. 12 to Oct. 19: "Toronto," \$2; "A Friend," \$5; "One Interested," \$5.

Previously acknowledged \$4,939.30

Total to Oct 19th \$4,951.30

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

From an Artillery Laddie.

[This letter, from Corp. Dan McArthur to his brother, will also be read with much interest: Corp. McArthur, who is with one of the Batteries in France, is the nineteen-year-old son of Mr. Peter McArthur.]

35th Battery C. F. A., France, 30, 8, 1917.

Dear McKellar:—

We are still in the same billets from which I wrote my last letter—but what a change from then! For three days we have had rain, not a continuous down-pour, but half-an-hour of shower, and half-an-hour of sunshine, so that you can never be sure just what is going to happen, I wish you could see our horse-lines, a sea of mud would not do it justice; it is more like the Asphalt lake of Trinidad. The whole brigade has its horse lines in a field, which was hard and dry when we came here. The road runs along one side and a small creek on the other from which we water our horses. The horses are picketed on ropes stretched between the guns and limbers. Each subsection (one gun) has its own lines, about twelve horses on each side of the rope. We have a pump and troughs made of iron sheeting, and the hay is fed in nets and the oats in the feed-bags. So far so good—but the ground is of a fine, chalky clay. When wet it keeps the rain from soaking in, so that it slips and slithers all over the place. Where the horses churn it up it is a foot deep; we have to shovel it out behind them in heaps. The horses themselves are plastered with mud, and so are the men. In order to get it out of our clothes we have to use a steel brush that we use for cleaning harness. Ankle boots and puttees get into an awful mess; thank heaven I have a pair of high boots. I had an extra sole put on them before coming over, and steel heels and toes. So far my feet have been as dry as bone, which is one of the greatest comforts one can have. Even if you are cold and wet it does not seem so bad when your feet are dry. So I just slither and slop around as if there were no mud at all. When we go up to our billet it takes ten minutes of brushing, standing in the creek to get the mud off, it is so sticky. The French call it "boue"—"beaucoup de boue ici!"

I have been in two billets since we came here. Our first was in a barn, very handy to the horses, but it turned out to belong to another battery, so we had to vacate. The people there were very decent to us; the old man had learned English from the soldiers and gave us lessons in pronunciation, which is what catches us most. For instance I was telling him that we had been in England one year—"un an"—but my pronunciation made it mean "one mule". Most of them talk so fast in the same tone all the time, that you can't make head or tail of what they are driving at. I can make myself understood pretty well, and am picking up my vocabulary all the time.

Our present billet is a medium-sized room in a cottage owned by an old couple. They didn't want us at first on account of some Australians having raised a row here at some previous date. However, I answered them that we were "très docile" and would not disturb them. There are fifteen of us in the room, but we are comfortable enough. These French people have peculiar tastes. Instead of flower gardens or lawns they prefer a big, juicy manure pile in front of the door. The aroma is "très délicateuse" after you acquire the taste. Our room is situated on the "bord du lac" so that we could take a dive out of the front door if so inclined. There is a beautiful rock well here—thank God, it's about a hundred feet deep! Our grub is cooked and eaten down at the horse lines. Now

that we are used to the mud and the country things are not so bad.

The Major, Lieut. Banallick and all the Sergeants (including Harry) have gone up to the line for a few days to prepare the way for the battery. We expect to move up shortly. It must be some mess up there when it is so muddy here. People who spout about "our gallant soldiers marching gaily into battle" should come and do a two-step through our horse lines!

Love to all.

DAN.

Current Events.

Toronto's contribution in the recent Red Cross campaign amounted to \$823,974. The school children collected \$22,000.

Premier Murray, of Nova Scotia, has declined to enter the Union Government.

Hon. J. D. Hazen is to be appointed to the new office of Canadian High Commission at Washington.

On Oct. 17th a test train went safely over the new bridge across the St. Lawrence near Quebec, the longest bridge in the world.

On Oct. 19th the American transport "Antilles," homeward bound, was torpedoed and sunk, 70 lives being lost and 167 saved.

During the week 11 German airplanes were brought down by French flyers.

Over 14,000 cattle and hogs perished in the big stock-yards fire in Kansas city last week. Incendiarism is suspected.

A Petrograd despatch says that Gen. Korniloff has been acquitted of the charge of attempting to overthrow the Provisional Government.

Gabriele D'Annunzio, the Italian poet, who is an aviator, has been awarded his fourth medal for valor.

There is a great shortage in the grain crop in Italy.

"Mata-Hari," a Dutch dancer whose real name was Marguerite Gertrude Macleod, was shot in Paris last week for espionage.

At midnight of Oct. 20th, 7 German Zeppelins raded the east and northeast counties of England, dropping many bombs. On their return to France 4 were brought down. Reprisals for the many air-raids on England seem to have begun. During the week the British airplanes dropped bombs on a factory near Saarbrücken, 40 miles from the German frontier. Bombs were also dropped on the canal and waterworks at Bruges.

No event of especial importance has been reported from the Western front during the week. Sharp artillery duels and air-fights continue as usual. The news from Russia is anything but reassuring. With the taking of Oesel and Moon Islands in the Baltic the Germans have practically gained a commanding position over the Gulf of Riga, and it is reported that the Russians are evacuating the fortified town of Reval and preparing to move the Government from Petrograd to Moscow. Twenty of the Russian vessels, however, have got out of the Gulf and have secured harborage in the Gulf of Finland. Notwithstanding Kerensky's impassioned appeals, the Russian fleet failed to do its duty in opposing the German warships, only a small section of it going out to battle. Needless to say the result was disastrous, and the battleship "Slava" was lost. Anarchy, indeed, seems to be rife almost everywhere in Russia; the unlettered peasants in many places, understanding nothing of the war and intent only on their own affairs, are busying themselves with razing the manor houses, leaving the country to take care of itself. Evidently the policy of centuries of misgovernment in which the mass of the people were practically compelled to live in ignorance, unable either to read or write, cannot be undone in a year.

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Great Britain is the Canadian farmer's best market to-day. Not only must the people of Britain be fed, but also the millions of fighting men, among whom are our own boys.

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Canada in her own interest must give credit to Great Britain in order that Great Britain may be enabled to continue to purchase Canada's agricultural and other products.

In other words Canada must lend Great Britain the cash with which to pay Canadian farmers and other producers.

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cial markets are closed. Canada will get this cash by selling Canada's Victory Bonds.

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It is patriotic because it enables him to help in maintaining production in Canada through which our fighting men will be supplied with Canadian produce.

And lastly because the investment is absolutely safe and the interest rate is most attractive.

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in co-operation with the Minister of Finance  
of the Dominion of Canada.

Aminta's Housekeeping.

BY HARRIET WHITNEY SYMONDS.

When Aminta Vine made a dismal failure of the Cranberry Creek school, the sympathies of Avoca Valley were strongly with Aminta's elder sister, Miss Dorinda.

It was an Avoca Valley habit to point out Miss Dorinda Vine as something of a paragon; her housekeeping was a matter of record; her energy and management had kept the old home place at the edge of town in thrifty condition; the small mortgage which old Adam Vine had put upon it was still there, but had been held in check, and even begun, under Miss Dorinda's administration, to shrink materially. If Aminta had but equalled Dorinda, said everybody, the mortgage would even now be a thing of the past.

Avoca Valley was not given to wasting sympathy upon Aminta in her defeats and failures, because, it was the universal opinion, Aminta never put her mind upon anything worth while. Thrift and self-denial had been required on Miss Dorinda's part, to educate her sister for a teacher, and the girl had rebelled against it from the start; she had a turn for fancy work, and she wanted to have a little store and sell her own work and other knick-knacks, and hotly had she pleaded with her sister to let her make the venture. Such a scheme appearing altogether empty and vain in Miss Dorinda's eyes, it was abandoned, and the school project pressed forward with dispatch. Aminta took her school course, received her diploma, and, through Squire Loveday's influence, was provided with school after school, only to lose them, the cause being placed by her employers upon the broad ground of "general incompetence."

Even Squire Loveday's kindly faith in Aminta's ultimate success was frosted, when word of her latest defeat reached him. "It's no use, Evan," his mother told him, "for you to stew your brains and wear holes in your shoes hunting up any more situations for the girl; there is absolutely nothing to her."

"Why, I don't like to think that, mother," the Squire protested. "She certainly does make a mess of the teaching business, but maybe she might be good at something else; she was always a bright appearing girl."

"A glass head is bright appearing," returned his mother, sagely, "but isn't of much value. She isn't a money-earner, and she isn't even a help to Dorinda with the housework; why, if she starts to sweep a room, Dorinda says, and the cat's asleep on the hearth, Aminta'll sweep around her, rather than rout her up."

Squire Evan laughed like a boy. "Well—I suppose that isn't good house-keeping, but it shows she has a kind heart."

"Oh, yes, Minta always was a tender-hearted little thing," Mrs. Loveday admitted, justly, "and as affectionate as a lamb. I haven't any doubt she let the children run over her—that's why she couldn't manage any of the schools she's had; but it comes hard on Dorinda. I tell you, Evan, there's a manager, and she'll contrive to pay off that mortgage yet, single handed; I never felt uneasy about it, myself."

"Nor I," Evan returned, carelessly, "and shouldn't, if she were not to pay it at all. I'd gladly hand her over the papers to-morrow, or burn them; but she wouldn't agree to that."

"No, indeed; she'd insist on paying it, sooner or later. But Evan," the old lady, who had been tranquilly darning stockings, began to ply her needle more rapidly, to hide a bit of embarrassment, "I've thought often of a fine way you could get rid of that whole business of the mortgage, and it'd be a benefit all around. You're getting on a bit, my boy; I'm reckoning you'll be forty your next birthday, and it's fourteen years since Effie died. I'm not saying but that I'm plenty able to keep house for you for years to come; still, it looks to me like it wouldn't be more than wise for you to be picking out some one to step in, somebody that would know how to keep house and take care of things. Hannah's a tip-top hand to turn out work, but she can't plan worth a cent; and every time she has to go over the ridge to look after her mother I find it harder to get on with the work. It would be a comfort to have some one here, and I don't know who'd fit into the space as well as Dorinda Vine."

Notwithstanding the menacing ap-

proach of his fortieth birthday, Squire Loveday was a good deal of a boy, and at his mother's last words he colored boyishly. "I'll think it over, mother," he said, with a slight laugh, as he walked out to the shady side yard of his comfortable country home. His mother's advice had fallen into soil prepared for it by some half-recognized consciousness in his own mind. He respected Miss Dorinda Vine as a woman of fine character; she was handsome, too; in a mature way, for Dorinda was as close to thirty-eight as Evan Loveday was to forty. So far, the Squire had escaped any fervor of romantic attraction, but, he said to himself, that was doubtless because he was not a young man, and the romance of his nature had been lavished upon the young wife he had lost fourteen years ago. That, however, need not prevent his offering his hand and loyal affection to another woman; he needed a wife, and Orchard Hill needed a mistress younger than his mother. "Perhaps I'll step over, one of these days, and have a talk with her," Squire Evan decided, looking thoughtfully at the tall rosebush that swayed heavily with its great knots of dark crimson bloom.

Aminta Vine's latest home-coming was not made a festive occasion. Miss Dorinda felt that it was her duty to impress her sister with some wholesome though unattractive truths; she considerably deferred her lecture, however, until the close of the noon luncheon.

"Indeed, I did try," Aminta protested, earnestly, "but the scholars were all so big and strong and noisy, and one of the directors happened to drop in when they were behaving worse than usual, and he reported that I didn't keep order. Then the Board wanted a class started in Geometry, and you know I never was very strong in that—"

"I know all about it," Dorinda interrupted her sister's weak explanations. "There's no use going into the whys and wherefores; you're simply a failure—that's all there is about it. It's worse this time, because I was depending on your salary to pay the interest on the mortgage note, which is due, and this is the first time I haven't had it on hand; you know why—"

"Y—yes, I know," Aminta began to gather up the dishes with tremulous hands, and very red cheeks; she recollected guiltily well, that the interest money had gone to pay the doctor for setting the ankle she had dislocated by jumping out of the hay loft, and for attending her during the fever that followed. Aminta Vine was all of thirty years of age, yet she still retained the youthful instinct to romp, greatly to Dorinda's annoyance; and the younger sister had good cause to feel sensitive over the hay-loft accident. "Do you think," she asked, piling the plates and saucers together rather unsteadily, "that Squire Loveday will mind waiting for the interest a little longer, this time?"

"I wish you would leave the dishes alone," Miss Dorinda quickly undid her sister's work; "you get everything done. Of course Squire Loveday will say a word about the interest, but that is not the point. I do wish you were able to do anything. If you had been capable of attending to the place and the housekeeping, I should have gone out to teach, and I can assure you there would have been no such absurd faults found with my management. But you couldn't even do the work in the house properly—take care, you're setting that sprigged bowl on the edge of the table. Mercy-me, do stop fussing around with the dishes; you make me nervous."

As Miss Dorinda's exhortations seasoned the daily meals of her younger sister through the lapse of weeks, life became something of a wilderness to the latter. One morning, however, she returned from an orchard stroll with the light of hope in her soft, grayish-blue eyes. "I've thought of something I can do," she announced, cheerfully, "that will help out the interest on the note. You know we heard Hannah's mother was sick and she had to go and nurse her. Well, I'll go and do her work for Mrs. Loveday, and let it go on the mortgage."

Dorinda was taking a loaf of fresh-baked bread from the pan; when she had placed it evenly upon the wire tray to cool, she looked at her sister with a sarcastic smile. "Mrs. Loveday being one of the best housekeepers in Avoca Valley," she observed dryly, "I presume your messy little dabs at housekeeping would amply satisfy her!" Aminta turned away in disappoint-



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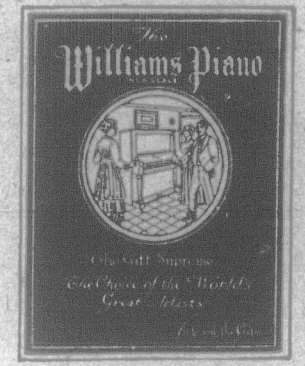
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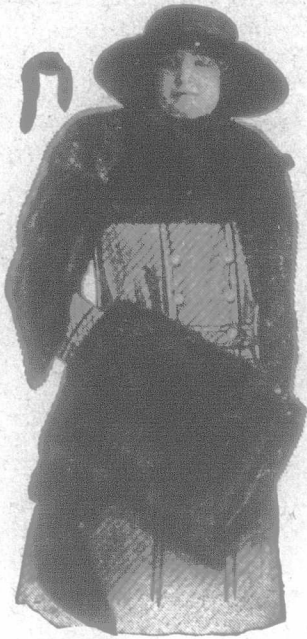
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References—Any Bank.

ment. "I can do some things," she defended her position; "I can make tea; and I know how to make cake, if you would ever let me have the eggs and stuff."

Dorinda waved the flimsy boast aside. "Mrs. Loveday would not wish to live entirely upon cake and tea, to say nothing of the Squire. You don't know any more about the real work of a house than a cat does, so don't try to scratch up impossible schemes. You'd better set to work now, darning the stockings; that is one of your scarce accomplishments."

At two o'clock on a hot afternoon Mrs. Loveday sat in her big rocker beside the dining-room window, in that uncomfortable condition when one can neither fall asleep nor keep briskly awake. Her son was absent in town, and a drowsy atmosphere lay about the pleasant old house. Through it presently came a sound of lightly-falling feet in the path, and then a slim little person stood tapping at the screen door leading into the cool entry.

"Come right in, my dear," invited Mrs. Loveday, recognizing Aminta. "I can't get up, for I managed to sprain my ankle this morning going down cellar; I find I'm not as spry as a grasshopper nowadays. It isn't serious, though; sit down my dear, and take your hat off; you're all of a flush."

"Thank you," gasped Aminta, who was, indeed, red with embarrassment. "I—I'm sorry your ankle is hurt, Mrs. Loveday, but maybe you'll need some one now—I heard Hannah was gone, and I thought—maybe—you'd take me to help with the work for a while."

"Why, for the land-sakes!" Mrs. Loveday sent a sharp glance at Aminta, but instantly toned it down. "What's the trouble, my child—tell me," she urged kindly. "There must be something unusual afoot to send you out looking for housework."

"It's only—I want to help Dorinda some way," fluttered Aminta; "and it seems I can't do anything else. I could work for you to pay the interest we owe Squire Loveday on the mortgage note."

"Why, bless you, child," Mrs. Loveday looked amused, "Evan isn't worrying a smidge about that interest; there's no need of your fretting about it, or working to pay for it."

"But, indeed, you don't know how much I want to," pleaded Aminta. "Dorinda is forever telling me of all the trouble I've made by my failures; but I'm not lazy, and I want to prove it some way."

"Did Dorinda suggest your coming to work for me?"

"Oh, no, indeed; when I spoke of it she laughed at me, and said that such a good housekeeper as you wouldn't want me. She wouldn't have let me come at all, but I—I just took and came away when she was out, and left a note to tell her what I had done. She nags me so I don't have any comfort. Dear Mrs. Loveday, let me stay—please do; now, how could you get along with your sprained ankle and no help?"

"I'm afraid you're not very used to housework," Mrs. Loveday demurred, in secret dismay, recalling Aminta's reputation in domestic affairs.

"Dorinda doesn't think I'm any account," confessed Aminta, "but, indeed, I can do some things; I could do more if she would let me undertake them, but she thinks I only mess them up. I can dust and darn, and I can make tea—"

"Tea!" Mrs. Loveday caught hopefully at the word. "It's the thing I want most, and this very minute. Evan tried to make me some toast and tea for dinner—dear boy, he boiled the tea till it tasted like old shoes, and the toast was charred to a cinder. If you think you could make me a cup—"

"Oh, yes, indeed I can." Aminta was all of a sparkle as she sprang up, laid off her hat and untied the bundle she had brought. "See, I have a house gown along," she chirped, shaking out a pretty pink gingham dress, "for I was determined to stay if I could possibly get you to let me. Now I'll run out and light the alcohol stove and put on fresh water, and you see if I don't get you a cup of tea that'll taste like ambrosia."

Squire Evan was astonished, upon his return home, to find a little pink-clad person flying about with a dust-rag and chatting cheerfully to his mother, who, with a white-draped stand beside her, was just finishing her second cup of tea.

"She certainly can make tea," the old lady told Evan, explaining the situation while Aminta was whisking the tray of dishes to the kitchen. "A better cup than that I never tasted; and the toast was excellent. I don't suppose she could do a great deal at the work, but she picks up and dusts neatly, and she's going to do the darning, if she stays; she is so anxious to stay—"

"Let her stay a while, mother," counseled Evan. "She'll be company for you in the times I'm away, and she can wait on you."

A week later another consultation was

held. Mrs. Loveday was inclined to keep Aminta until Hannah's return. "It's very hard to get satisfactory help," she averred, "and any way, Minta's such a good little thing to coddle a body up, and so handy at making tea. I'd be willing to have her stay, if you could put up with the meals."

"Why, sure," agreed Evan heartily; "she suits me all right. Her coffee is first rate, and her flapjacks, too."

"She's a fine darning and sewer," admitted Mrs. Loveday. "She isn't over strong, and she's never learned to make light bread—"

"But her cookies are slap-up," finished Evan; "beat any I ever tasted, except yours, Mammy. Let's keep her; we can buy bread of Mrs. Benbow, and I'll help a bit with the work."

"Well," agreed Mrs. Loveday; "we will; she cheers a body up, somehow; I know I'd miss her."

When the full import of Aminta's mutinous act forced its way to Miss Dorinda Vine's brain, she set her lips in a severe line, which, however, took a slight curve of grim amusement. "If Mrs. Loveday lets her stay at all, I give Minta about two days to get things into a beautiful mess and come home in disgrace."

Several days passed on, however, and Miss Vine's prediction was not verified; and then one morning Squire Evan came over to explain matters. "We should not for a minute wish Aminta to work out that trifling bit of interest," he assured Dorinda, "but she is so anxious to stay a while, and mother finds it a convenience, since she is laid up, so if you can spare her a week or so—"

"Oh, spare her! You must know, Squire, I could manage the work of this house with one hand." Dorinda's tone held more tartness than she was aware. "Minta is very little use about the house, except to darn and mess with fancy work. I don't see how your mother puts up with her slipshod ways at all."

"Why, you see, mother likes her ways," smiled Squire Evan. "She is so willing and so good-tempered; and she's learning lots of kinks about cooking; she made an apple cobbler yesterday that was simply a wonder—two-story, Miss Dorinda, and lots of the cutest little frills on it!"

Miss Vine hooked her screen door with a sharp snap after the Squire's departure. "Likes her ways!" she recalled Evan's words with scorn. "I suppose she's sugary enough over there, but if Madam Loveday can be fooled by a babyish pretense of work and some giddy hopping around with a duster, she's an old goose—that's all."

It appeared that Mrs. Loveday was well content with Minta's ministrations, for, as several weeks went on and Hannah was detained by the illness of her mother, the younger Miss Vine remained on at the Squire's, until one unhappy morning near the close of summer, when Miss Dorinda descended upon Orchard Hill with disquieting news of a prospective school for Aminta. It was in an adjoining county, some miles away, she explained, and it would be necessary for Aminta to make her application without delay, and to that end, to journey at once to Pin Oak township, the home of the potent committee.

"But—but—I'd rather stay here and do housework, than try to teach any more schools," faltered Aminta, almost upsetting her pan of yellow peaches in her dismay.

"It isn't a matter of choice," Miss Dorinda reminded her, with determination. "You were educated—at great expense to me—for a teacher, and I do not propose to have it all go for nothing. You owe it to me, if not to yourself, to make good use of the money that was spent on your education, and you must make up your mind to it."

The cheery light faded from the small face bent above the yellow fruit, and a tear splashed upon the rim of the pan. Mrs. Loveday's kind heart moved her to intercede: "I hardly see how I can spare your sister, Dorinda; Hannah's mother is having a regular siege of low fever, so Hannah can't leave her, and my ankle is still weak—"

"I thought of that, Mrs. Loveday," Dorinda assured her, promptly. "I should not think of leaving you without help, and I have arranged things at home so that I can come, myself, and stay with you. Lucinda Greene is going to look after my house, as she lives so close to me. And I don't think you need the assurance that I can attend to your com-

fort and the housekeeping rather better than my inexperienced little sister could do."

"I've been getting on first rate," Aminta hastily informed Dorinda. "Why can't you let me alone? I like to work around the house, and I hate to teach school."

"Please don't make it necessary for me to go over the ground any more," urged Dorinda, unmoved by the plea. "You will have to start this morning in order to get to Pin Oak before night, and you would better run right home and pack your grip."

Bravely Aminta continued to fight for liberty, but the battle was too unequal. Against Dorinda's long established dominance, the younger sister's blind rebellion beat like ripples against a rock; nerve-shaken, weary and utterly routed, she left the elder in possession of the field, and sadly prepared for her trip to Pin Oak township. Mrs. Loveday gave her a kindly kiss and word of comfort at parting, feeling slightly dazed, herself, by the sudden revolution in her household. Her amazement had gathered something of discomposure by the time her son reached home, late in the afternoon.

"She's just hustled Minto off like a cyclone," she told him, in their brief talk on the porch, "and she's gone slap-dab at the work like a house afire. She's a tearing good housekeeper—there's no doubt about that, but her energy is upsetting to a body's nerves. She's been digging into every corner from attic to cellar, and she's just naturally spied out every thin place there is anywhere."

"Whee-u!" whistled Squire Evan. "So we're having an epidemic of housekeepers, are we? And little Aminta's gone!"

Mrs. Loveday's maid, Hannah, upon her return to Orchard Hill found the house in the highest state of order, and the pantry well provisioned with substantial and dainties. Mrs. Loveday, nevertheless, watched the retirement of her late aid-de-camp with a spice of satisfaction. "I feel tired," she confided to Hannah, "trying to live up to Miss Dorinda's perfection. She has domestic science down to a mighty fine point, but somehow, I can't consider fine house-keeping the end of everything—seems to me it ought to be more a means to other things."

A shadow fell upon her motherly face, as she sat pondering in her rocker by the window. "I hope Evan has forgotten that advice I gave him once," she rambled on, to herself. "I'm sort of uneasy; Dorinda took lots of pains to please him, and she's a top-notch cook; and I don't believe he saw the hard seams in her disposition as plainly as I did. Aminta would be much the more agreeable as a daughter-in-law, in my opinion."

Aminta secured her school in Pin Oak township, and, as weeks passed on with no report of failure, Dorinda's satisfaction waxed great. "All she needs is some one to keep her at it," she complacently reflected, "and she'll do very well." It was, therefore, a trifle disconcerting when the younger sister appeared at her home one russet-hued day in late October, without previous notice of her coming. Dorinda did not attempt to conceal her dissatisfaction. "I suppose it was too much to hope for that you could keep a school a whole term," she said, with some tartness, "but I was counting on your keeping it until Thanksgiving, any way. What was the trouble, this time?"

"I didn't fail, this time," Minto assured her, cheerily, tossing off her little brown hat. "I—I—resigned."

"Resigned! And for goodness' sake, what did you do that for? I suppose you haven't forgotten that there is a mortgage on this place—"

"Oh, that'll be all right—Squire Evan said so," Aminta assured her, glowing all of a sudden like a rose. "In fact, he's the one who advised me to resign my school now. He—wants me to marry him, and, of course, I will; he's the splended man! And Mrs. Loveday is as dear as she can be; you don't know how I did love to make tea for her. And, Dorinda, you'll never have to worry any more about the interest money, nor anything—"

Aminta stopped suddenly; Dorinda had walked into the kitchen and shut the door with a bang.—American Cookery.

The Awakening.

BY ELI WHEELER.

It was a scorching hot afternoon in July. Ralph and John, two sons of John Brown Sr., were busy loading hay and storing it in the barn, when they casually noticed a large touring car emerge from a cloud of dust and halt at neighbor Green's door, where after a few short minutes stay it turned about and went whirling back towards the city again. They wondered what was the car's errand, but unconcernedly dismissed it from their minds in their present strenuous efforts to get a well-cured field of hay into the barn before nightfall.

After supper that night while they were sitting about the kitchen discussing the work of the day and planning for the morrow's labor, Silas Weatherby, a neighbor farmer, called in with the startling news that Tom Green, neighbor Green's only child, had paid the supreme sacrifice "Somewhere in France", which explained the auto's swift trip in the afternoon.

Ralph in particular was dazed, stupified, to think that Tom Green, his chum at school, dear to him as a brother, should have fallen a victim to the German tyrants. That Tom really was dead! Only twenty-three years old with a promising life ahead of him instantly blotted out by the bursting of a high explosive shell dropped almost at his feet. Gone! and for what?

Ralph pondered over the question that night. He could not sleep. The great war had never seemed very near to him before. All he knew or cared about it had been that farm produce was fetching remarkable prices and that with a year or two more of such prosperity father would be able to buy a car, and then they could indulge in some of the luxuries of the idle rich.

But dear old Tom's death rudely awakened him. Tom had enlisted a year ago, had left his old father and mother to manage best they could the splendid one-hundred acre farm, all alone. He had bravely given up mother, father, home, wealth and ease, for what? Duty, and possible death, and now "Somewhere in France" his body was lying. Was his reward worth the price. Ralph could not but admit to himself yes! A thousand times yes! To fight and die for one's country, liberty and the freedom of succeeding generations. What could be greater glory?

Then unconsciously he began to compare his own part in this great cruel war with Tom's unlimited sacrifice. What had he done? What was he doing? Surely he was helping produce grain, fodder, meats, etc., all of which were as urgently needed to help win the war as were soldiers with bayonets at the battle-front.

Still the wee small voice within kept saying, "Could not John and father manage the farm without you by possibly a little extra effort on their part, and a change in the rotation of crops another year, leaving more in pasture and grass land, thus minimizing labor needed? and you, Ralph, should you not offer yourself for service? Your brother John is physically unfit for a soldier and your father is past the age limit, but you are a healthy strong young man of twenty-one. Why should you not go?" And Ralph, unable to longer lie in bed thinking such thoughts, arose, dressed and went out in the cool night air to fight the battle out alone with his Maker.

It was not a case of afraid to enlist or of which would be the more profitable, but what was his duty to his God and Country? And the answer came to all his reasonings. Go! So that night out under the old Canadian maples, he made a pledge that if he was spared another twenty-four hours he would enlist. Once more at peace with his conscience, he went back to bed and to sleep.

Next morning after breakfast, just as they were preparing to start for the hay field, Ralph announced his intentions of going to the city and enlisting that very forenoon. Mother father and brother were thunderstruck at his present decision of intending to go away over there in France, a target to the Hun sharp-shooters, when only the other day he had been planning on the great times they would all have next fall when they purchased the much talked of auto.

Ralph kindly but firmly stated reasons why he thought it his duty to go, and they could not but admit he was right

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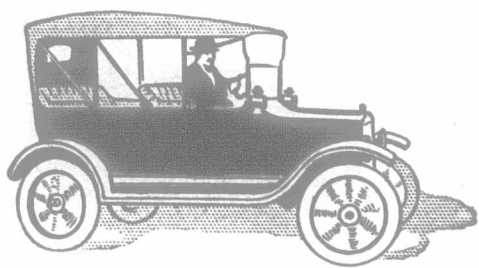


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and reluctantly, though unanimously, they wished him God-speed.  
 Ralph was accepted at the recruiting office but was exempted from training for two months to enable him to help in harvest. In October he reported for duty and after about six months' hard drilling reached his objective, the trenches in France.

His mother received occasional letters from him; a part of one, written after he had seen over three months' hard fighting on the battle front reads thus: "Somewhere in France."

Dear Mother.—I am well and still able to do my small bit on the fighting line. The chances are less than one in ten thousand of my ever coming back home, but I do not regret for a single moment my enlisting. Thank God for the awakening which showed me my neglected duty. As a fighter for liberty and freedom I am willing, yes glad, to die if need be for my country.

From your loving son Ralph.

P. S.

"I live for those who love me,  
 For those who know me true;  
 For the heaven that smiles above me,  
 And awaits my spirit too;  
 For the cause that lacks assistance,  
 For the wrongs that need resistance,  
 For the future in the distance,  
 And the good that I can do."

## The Sari—an Interesting Article of Women's Dress in India.

The dress of the women of Bengal, India, is very simple. For a grown up person it requires 5 yards of cloth forty or forty-four inches wide. A woman spends no time at the dressmaker's. It is a ready-to-wear garment. She drapes herself in her new sari as she leaves the store. The sari may be of any color or quality, from the coarse red bordered cloth the coolie women wear to the finest of silks and muslins with pretty borders interwoven with pretty oriental patterns and colors, worn by people of wealth and rank.

I was sitting in a boarding-school one day when I heard the teacher say, "So guard your slate that your neighbor gets no help from you". At once each girl took the loose end of her sari and held it like a curtain around the slate as she wrote. The sari is more than a mere dress. Part of it is used to cover the head. It would look most ridiculous for a Bengali woman to wear a hat. When working about the fire the free end of this handy costume is used to lift hot dishes and kettles, then the woman replaces the corner in the skirt band and a bit of it serves as an apron, for over such a draped garment a real apron cannot very easily be worn. Often I saw a girl wipe clean the end of a bench or a chair for a visitor to sit down, and no other duster is so ready as this sari. Should I tell you, too, that it is the only handkerchief poor people carry? And it also serves as a slate rag. Not long ago a worker went into the school kitchen and found a girl heating milk for a teacher. The open fire had been stirred and specks of coal and ashes had fallen into the bowl of milk. The girl quickly washed out the end of her sari and strained the milk through it into another vessel and thought she was doing a very sanitary thing for the respected teacher.

The free end of the sari is usually thrown over the left shoulder. On it the school girls fastens a bunch of keys and besides these one often finds tied fast a few copper coins (pice) a pinch of salt, some garlic or chillies, or any treasures a school girl may collect. Coming from the market little purchases are carried in the sari instead of in a basket. At the time of writing the children were making interesting mud houses and a part of the school ground is covered with a veritable village of playhouses. But this game succeeded skipping only a few days ago. During the skipping season, after applying at headquarters for rope and getting a supply insufficient for one hundred girls (rope among other things is very expensive now), we found the girls using their five-yard lengths of cloth, rolled up, for skipping ropes! If a new girl in school gives too much trouble the first few days by wishing to visit home too often, she is attached to the big girl by means of their saris and they go about together. E. JAMES.



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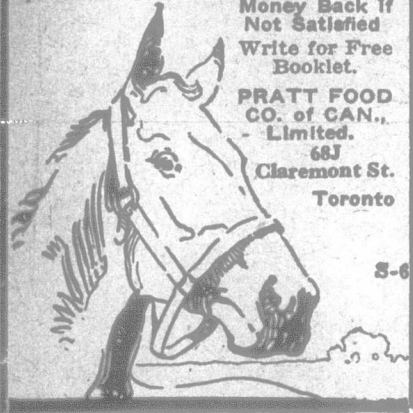
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Women Save the English Harvest.

EDITOR "THE FARMER'S ADVOCATE":

There are 200,000 women saving the harvest of England and Wales and saving it well, too. It has been a trying time with bad weather and heaps of rain and a skirling wind. But the yields are good, and Mr. Lloyd-George's optimism as to "We can't be starved" is not misplaced. The Board of Agriculture estimates fairly good yields. Here is the official statement:

"Summarising the returns, and expressing an average crop by 100, the appearance of the crops on 1st September indicated probable yields which may be expressed by the following percentages:—Wheat, 93; barley, 97; oats, 90; beans, 80; peas, 91; potatoes, 104; turnips and swedes, 96; mangolds, 103; hops, 99."

Women have worked well at every phase of harvesting. This is what Mr. Prothero, our Minister of Agriculture, has written to Lady Londonderry, (who is running a series of Farm Women's Competitions at Oakham, a new phase of "sport" which is catching on all over the country):

"In almost every part of England and Wales there are now some 200,000 women who are doing a real national work on the land. They are carrying on to the farms the same patriotic enthusiasm which inspires their menfolk by land and sea. Like them they have cheerfully borne their share of hardship and discomfort. Like them, they have set up a high standard of self-sacrifice and devotion to duty. They are truly helping their husbands, sons and brothers to win the war."

"In entering on what is to many women an entirely new sphere of work they had to overcome many prejudices and encounter some ridicule. No one laughs now except at the prejudices. In the management of horses, in the care of live stock, in milking and dairying, in thatching, and in the hundred and one jobs about a farm, women can hold their own. If in other forms of work their success depends more largely on their physical strength, farmers have learnt that women can do as well as men most things to which they have set their minds."

The point that has struck most observers who have lately been watching the progress of work on the English farm is the extremely important part that women, soldiers, girls and boys have had in it. Official and all other reports tell with increasing emphasis of the growing helpfulness of women in almost every sort of agricultural work. But for them and the soldiers who have been spared, great numbers of farmers who, before and since the war started, looked askance at the other sex would have been on their beam ends with both the hay and the corn harvests, to say nothing of fruit. The tasks that women have successfully undertaken on British farms in the last twelve months have been an eye-opener that has utterly silenced critics, ideal or practical. Instead of asking what can a woman do on a farm, you now ask—is there anything that she cannot do? A far travelled and most experienced authority on British agriculture says: "I am amazed that there should ever have been opposition to or suspicion of women's capacity. I do not dream of discounting the honest intention of the old type of labor, but for practical conduct of honest intention I prefer well-educated and well-nurtured young women. Farm work demands conscientious labor above all things, and I prefer a young woman like this to all the boys and most of the men at command in more prosperous times. No men of my acquaintance in the long past have done better, cleaner, or more faithful work than girls I have met on farms. Men are sometimes coarse—occasionally brutal—to cows; women never. Men milk with dirty hands, which make women uncomfortable. Women weigh the milk religiously. Men weigh it in a perfunctory manner and as unbelievers, if they weigh it at all." Many instances might be cited of Yorkshire farmers who, having lost all their men, have experimented with women, and were made as happy as farmers could be, accepting the new position as men who had made new discoveries and mapped out fresh plans of campaign. It is suggested that, as women are not all mothers of children, the land affords

them as it affords men a better opportunity of enjoying a happy, prosperous and healthy life than any other occupation.

In most northern counties women have made most handsome response to the call for agricultural volunteers. So numerous have candidates been that only the undoubtedly fit have been accepted, fifty per cent. being sometimes rejected. At numerous centres, including Government bursaries, hundreds of women are being trained every month; and, though it is not possible to turn out a woman farmer in a month, smart, capable girls are very useful on a farm after a three weeks' probation. As samples of the vigorous efforts that are being made all over the midlands and the north of England to respond worthily to the call made by Mr. Prothero, in June, for more women for the land, the recent activities of the West Riding Women's War Agricultural Committee may be mentioned. Arrangements have just been completed for a party of 400 women to go for potato picking in the Goole district. Over 50 fruit bottling demonstrations have been held since June. The Government are said to have been slow in supplying bottles, but the sub-committee have now received nearly the whole of an order for 24,000 bottles.

The West Yorkshire Selection Committee have interviewed over 1,300 girls, and more than 350 have been placed on the land in various parts of the country. Most of the recruits are from the industrial classes, and servants have made excellent farm hands. Women land workers in the North Riding are now receiving special training in ploughing, and gangs are to be formed for assisting farmers in threshing, potato picking, etc.

A party of about 50 Leeds Grammar School boys, in charge of Mr. Wynne-Edwards, the headmaster, and other masters, have just returned from a month's stay on the battlefield of Flodden in Northumberland. One of the party reports that they had plenty of hard work, and that everything and everybody was very kindly except the weather. It rained on 18 days out of the 28 days of the visit. The students mostly thistles, which grew abundantly everywhere. To clear the land of them was their chief work. Last year farmers had not been able to properly clear the land. More soldiers are to be released for preparing for the winter sowing campaign.

ALBION.

The Elgin County Sale.

One will have fifty chances to secure a high-class Shorthorn and eleven chances to obtain a top-notch Hereford at the Elgin Pure-bred Breeders' second annual combination sale, to be held at St. Thomas on Thursday, November 8. Those in charge promise that the offering will be all well bred, well grown, and well conditioned. Catalogues and full information can be obtained on request to Duncan Brown, Shedden, Ontario, Manager; or James Page, Wallacetown, Ontario, the secretary. Get full particulars early.

Sale Dates.

- Oct. 25, Col. R. J. Stuart, Orono, Ont.—Registered and grade Shorthorns, Tamworths, horses and Farm.
Oct. 26, W. G. Bailey, Paris, Ont.—Holsteins.
Oct. 26, A. E. Currie, Guelph, Ont.—Shorthorns, Yorkshires and Leicesters.
Oct. 30, Harry Tout, Strathroy, Ont.—Holsteins.
Oct. 30, Chas. Murray, Niagara Falls, Ont.—Shorthorns.
Oct. 31, Dr. C. A. Cline, London, Ont.—Holsteins.
Nov. 1, O. A. C., Guelph, Ont.—pure-breeds.
Nov. 5, Peter Arkell & Co., Teeswater, Ont.—Oxfords.
Nov. 7, Western Ontario Consignment Sale, London, Ont.—Shorthorns.
Nov. 8, Elgin County Pure-bred Breeders' Association, St. Thomas, Ont.—Shorthorns and Herefords.
Nov. 28, H. Bollert, R. R. 1, Tavistock, Ont.—Holsteins.
Dec. 11, Niagara Peninsula Holstein-Friesian Club, Welland.—Holsteins.
Dec. 12, Oxford District Holstein Breeders' Club Consignment Sale, at Woodstock, Ont., W. E. Thomson, Secretary.
Dec. 19, Southern Counties Ayrshire Breeders' Club Consignment Sale, at Woodstock, Ont. John McKee, Norwich, Secretary.

That Coupon below is your chance to prove you are with us in upholding the farmers' interests!

IF YOU BELIEVE that The Farmer's Advocate is a good institution for the farmers of this country, and if you believe that it will benefit some of your brother farmers to subscribe—get all the men you can to give you their subscriptions.

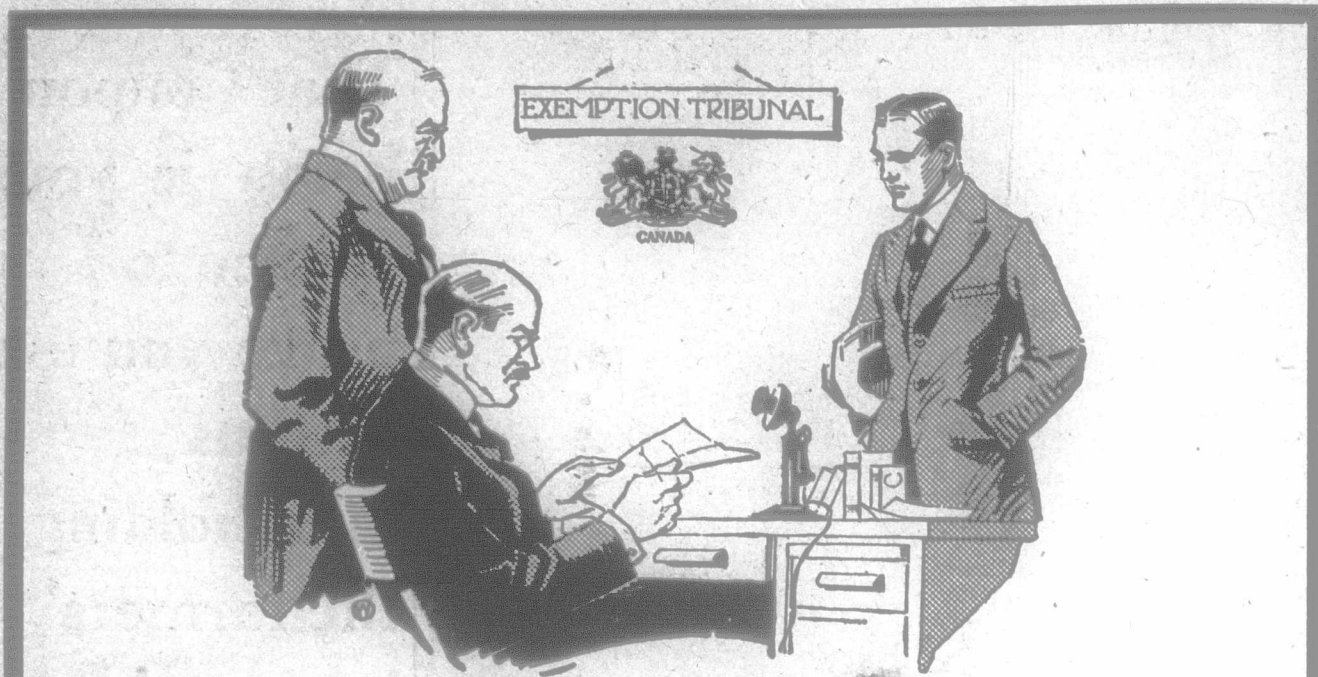
You will be doing a good work, besides helping us. Furthermore you'll earn six months free on your own label for each NEW yearly subscription you send us at \$1.50, paid in advance.

How many can you get—say this week?

Shall we send you some sample copies?

The William Weld Co. LIMITED

Coupon form for The Farmer's Advocate and Home Magazine, London, Ontario. Includes fields for name, address, and subscription details.



## Exemption Tribunals.

Exemption Boards have been chosen in such a way as to make them absolutely independent and removed from all influence. There are over 1,250 boards throughout the country, each composed of two men, one appointed by the county judge in the district concerned and one selected by a joint committee of Parliament. Being familiar with local conditions where they sit, the members are well-fitted to appreciate such reasons for exemption as are put before them by men called up.

Exemption will be granted to those who can establish that it is in the national interest that they remain in civilian life. This is for the Exemption Board to decide after having received full information in each case.

The grounds on which exemption may be claimed (which are similar to the grounds recognized in Great Britain and the United States) are as follows:—

- (a) That it is expedient in the national interest that the man should, instead of being employed in Military Service, be engaged in other work in which he is habitually engaged.
- (b) That it is expedient in the national interest that the man should, instead of being employed in Military Service, be engaged in other work in which he wishes to be engaged and for which he has special qualifications.
- (c) That it is expedient in the national interest that, instead of being employed in Military Service, he should continue to be educated or trained for any work for which he is then being educated and trained.
- (d) That serious hardship would ensue if the man were placed on active service, owing to his exceptional financial or business obligations or domestic position.
- (e) Ill health or infirmity.
- (f) That he conscientiously objects to the undertaking of combatant service and is prohibited from doing so by tenets and articles of faith, in effect on the sixth day of July, 1917, of any organized religious denomination existing and well recognized in Canada at such date, and to which he in good faith belongs.
- (g) That he should be exempt because disfranchised under the War Time Election Act.

No Claim for Exemption should be put forward unless one or other of these grounds in fact exists, and no loyal citizen should assist in, or allow himself to be made a party to, any Claim for Exemption unless thoroughly satisfied that it is made in good faith.

Exemption may be applied for by the men selected themselves or by their parents, near relatives or employers. Application for exemption must be made on printed forms to be found at every post office, which are to be filled in and left with the postmaster if exemption is desired. The postmaster will forward the form to a Registrar, who will send it to the appropriate Exemption Board. In due time, then, the Applicant will get notice as to when he must present his case before the Board.

Issued by The Military Service Council.

148

### AUCTION SALE Of Purebred

## Dairy Shorthorns

Will be held on Lot 32, Con. 1,  
SAUGEEN, near Paisley, Ont.

Thursday, Nov. 1st, 1917

Six cows, extra good milkers and in good breeding condition. One stock bull, four heifers and seven bull calves; also grade cattle and well-bred sheep.

John D. McArthur, Prop., Paisley, Ont.

### For Sale

Six registered Oxford Down ram lambs, and forty Oxford Down ewes, registered and unregistered; All healthy and clean—for sale.

DUNCAN BROWN & SONS, SHEDDEN, ONT.

## Public Auction

at the old original Summerhill Farm, two and one-half miles from Teeswater, Ont.

MONDAY, NOVEMBER 5th, 1917.

Sale will commence 1 o'clock.

consisting of 100 first-class grade ewes in good condition, also some choice registered Oxford ewes; all will be sold without reserve. A number of registered Oxford rams will be sold private.

TERMS: 6 months' credit on approved joint notes at 6% per annum; 3% off for cash.

PETER ARKELL & CO., Proprietors.  
John Purvis, Auctioneer.

### PURE-BRED STOCK FOR SALE

Clydesdales, Aberdeen - Angus, Hampshire Sheep, Berkshires. Present offering 13 ram lambs, 13 ewe lambs, 1 shearing, 5 young bulls from 7 to 14 months, 2 cows 3 and 4 years old, 2 fillies rising 3, by Celtic Baron. Young pigs of both sex. JAS. SMART, Pleasant Valley Farm, Beeton, Ont.



### THREE and FOUR-HORSE EVENERS

Pat. in Canada and U.S. A full line made for all farm machinery. Has many advantages over other eveners. Write for prices.

J. P. CORMODE, GHATHAM, ONTARIO

### Pure Cottonseed Meal

"Dixie Brand".....	41% protein, fat 5.50%
"Porfat 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, Mail & Empire Bldg., Toronto.

Patent Solicitors—Fetherstonhaugh & Co. The old established firm. Patents everywhere. Head Office Royal Bank Building, Toronto; Ottawa Office, 5 Elgin Street. Offices throughout Canada. Booklet free.

## Montreal Produce.

**Poultry.**—The market here so far is little better than nominal, but quotations for chickens were from 20c. to 25c., while fowl were quoted at much the same range, according to quality. It is stated that even higher prices may be quoted on fancy stock.

**Dressed Hogs.**—The market for dressed hogs was displaying some slight easiness, and predictions were heard that from this forward prices should be lower. Sales of abattoir fresh-killed stock were taking place at 25½c. to 26c. per lb.

**Potatoes.**—It is understood that the crop in the U. S. will turn out short, and that the quality of a considerable proportion of the potatoes has been affected. There is a good demand for domestic and export account for Canadian potatoes, and Green Mountains were up to \$2.15 per 90 lbs., ex-track, while Quebec white potatoes were about \$2 per bag of 80 lbs., ex-store.

**Eggs.**—The egg market was attracting some interest. Little change was noticeable in the price of strictly new-laid stock, this being around 53c. to 54c. Selects were still 47c. to 48c.; No. 1 candled, 43c. to 44c., and No. 2 candled, 40c. to 41c. The consumption is running strongly on storage stock, and the movement in this quality is large.

**Butter.**—During the past week the market for butter was very firm. The make is falling off, and prices have advanced. They were 46c. for finest, and 45c. to 45½c. for next quality. Dairies ranged from 37c. to 40c. per lb., covering all qualities.

**Cheese.**—The Commission was paying 21½c. for No. 1; 21¼c. for No. 2; 20¾c. for No. 3. At Ontario cheese boards, 21 5/16c. was paid.

**Grain.**—No. 2 Canadian Western oats were quoted, in car lots, ex-store, at 76c. to 76½c.; No. 3, and extra No. 1 feed, 74½c. to 75c.; No. 1 feed, 73½c. to 74½c.; No. 2 feed, 72c. to 72½c. Ontario and Quebec No. 2 white, 72c.; No. 3 white, 71c. Canadian 3-lb. picker beans, \$9; 5-lb., \$8.50; Rangoons, \$7.50; and yellow eyes, \$7.

**Flour.**—The market was steady at \$11.60 per barrel, in bags, for Manitoba first patents; \$11.10 for seconds; and \$10.90 for strong bakers'. Ontario 90 per cent. patents were \$10.70 to \$11 per barrel, in wood, and \$5.20 to \$5.35 per bag.

**Millfeed.**—Bran was quoted at \$35 per ton, in bags; shorts, at \$40 to \$42; mixed mouille, \$55 to \$56, and pure grain, \$58 to \$60; middlings, \$48 to \$50 per ton; flour middlings, \$66.

**Baled Hay.**—The market was fractionally firmer, with sales of car lots of No. 2 hay at \$12 to \$12.50; and No. 3, \$11 to \$11.50, ex-track.

Attention is directed to the advertisement re the Shorthorn dispersal at Glen Farm, near Niagara Falls, in the County of Welland, on Tuesday, October 30.

### The Cline-Carroll Holstein Sale.

This is the last call for the Cline-Carroll Holstein dispersal on October 31. Parties from a distance will be met at the Grigg House, London, up to 12.30 on day of sale, so the connections are as good as could be desired. The herd header is mentioned in the advertisement in these columns and full information regarding all the lots may be obtained by writing Dr. C. A. Cline, London, Ont. There will be sixty chances to buy and you will be used right. Get a catalogue early and study the breeding.

### The London Shorthorn Sale.

If Wednesday, November 7, is as fine as all the previous days which have been selected by the Western Ontario Consignment Sale Company, Ltd., as sale dates, there will be a large attendance at the event now being advertised in these columns. The get of such favorably known bulls as Blarney Stone, Seafoam, Best Boy, and other high-class sires in Western Ontario has attracted many buyers in the past and will do so again on November 7. There is always a good offering of young bulls and the females are keenly contested for. The good features which have characterized the London sale in the past will be repeated again this fall, so no one can afford to miss the coming sale. The Manager, Harry Smith, Hay, Ontario, will furnish a catalogue and full particulars on request. Don't be late in making up your mind to attend.

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for dressed ht easiness, that from be lower. stock were per lb. l that the short, and ble propor- n affected. r domestic n potatoes. p to \$2.15 tnebc white y of 80 lbs.

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was paying o. 2; 20 1/2c. se boards,

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Sale. 7, is as hich have n Ontario d., as sale attendance ed in these favorably Seafoam, ss sires in ed many o so again ys a good e females The good rized the e repeated afford to Manager, ill furnish ulars on making up

**Warranted to Give Satisfaction.**  
**Gombault's Caustic Balsam**



**Has Imitators But No Competitors.**  
 A Safe, Speedy and Positive Cure for  
 Curb, Splint, Sweeney, Capped Hock,  
 Strained Tendons, Founder, Wind  
 Puff, and all lameness from Spavin,  
 Ringbone and other bony tumors.  
 Cures all skin diseases or Parasites  
 Thrush, Diphtheria. Removes all  
 Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism,  
 Sprains, Sore Throat, etc., it is invaluable.  
 Every bottle of Caustic Balsam sold is  
 warranted to give satisfaction. Price \$1.50  
 per bottle. Sold by druggists or sent by ex-  
 press, charges paid, with full directions for  
 its use. Send for descriptive circulars,  
 testimonials, etc. Address  
 The Lawrence-Williams Co., Toronto, Ont.

**Fistula and Poll Evil**



Any person, however inexperienced,  
 can readily cure either disease with  
**FLEMING'S**  
**FISTULA AND POLL EVIL CURE**  
 -even the old cases that skilled doctors  
 have abandoned. Easy and simple; no cut-  
 ting; just a little attention every fifth day,  
 and your money refunded if it ever fails.  
 Cures most cases within thirty days, leaving  
 the horse sound and smooth. All particu-  
 lars given in  
**Fleming's Vest Pocket**  
**Veterinary Adviser**  
 Write us for a free copy. Ninety-six pages,  
 covering more than a hundred veterinary  
 subjects. Durable bound, indexed and illus-  
 trated.  
 75 Fleming Bros. Chemists  
 Church Street, Toronto, Ont.

**SELDON SEE**  
 a big knee like this, but your horse  
 may have a bunch or bruise on his  
 Ankle, Hock, Stifle, Knee or Throat.

**ABSORBINE**  
 TRADE MARK REG. U.S. PAT. OFF.

will clean it off without laying the  
 horse up. No blister, no hair  
 gone. Concentrated—only a few  
 drops required at an application. \$2 per  
 bottle delivered. Describe your case for special instructions  
 and Book \$ K free. **ABSORBINE, JR.**, antiseptic  
 salve for man, horse, dog, cat, etc. Cures  
 enlarged Glands, Gout, Wens, Bruises, Varicose Veins,  
 Varicellous, Old Sores, Allays Pain. Price \$1 and \$2 a  
 bottle as drug or delivered. Manufactured only by  
**W. F. YOUNG, P.O. Box 288, Lyman, N.B., Montreal, Can.**

**DR. PAGE'S ENGLISH SPAVIN CURE**  
 Cures the lameness from Bone-Spavins, Side-Bones,  
 Ringbones, Curbs, Splints, etc., and absorbs the  
 bunches; does not kill the hair, absorbs  
 Capped Hocks, Bog-  
 spavins, thick pastern  
 joints; cures lameness  
 in tendons, most  
 powerful absorbent  
 known; guaranteed,  
 or money refunded.  
 Mailed to any ad-  
 dress. Price \$1.00.  
 Canadian Agents:  
**J. A. JOHNSTON & CO., DRUGGISTS**  
 171 King St. East, Toronto, Ont.



**MORE HORSEPOWER**  
 if your teams are equipped with  
**Ventis**  
 These pads prevent Sore  
 Shoulders and cure Gall  
 Sores. Your dealer will  
 supply you, or write:  
**BURLINGTON BLANKET CO., LIMITED.**  
 798 King Street West, Toronto, Canada.

**MESSRS. A. J. HICKMAN & CO. (Late  
 Hickman & Scruby) Court Lodge, Egerton,  
 Kent, England, Exporters of**  
**PEDIGREED LIVE STOCK**  
 of all descriptions. Specialty made of draft horses,  
 beef and dairy breeds of cattle, show and field  
 sheep. Illustrated catalogues and testimonials on  
 application. All enquiries answered with pleasure.  
 Now is the time to import. Prospects were never  
 better, and insurance against all war risks can be  
 covered by payment of an extra 1% only.

**Gossip.**

B. Armstrong & Son, Codrington, are having good results in disposing of their Yorkshires and Oxfords, but still have a number of extra-fine pigs of both sexes to offer, and assert that they can furnish quality to satisfy the most exacting. Continuing, they write: "We have just weaned a large litter of beauties from our old sow that has been so very prolific. In Oxfords we have some very fine ram lambs, some weighing 125 to 135 pounds, and one extra fine lamb weighs 160 pounds. We have two litters of collies in prospect."

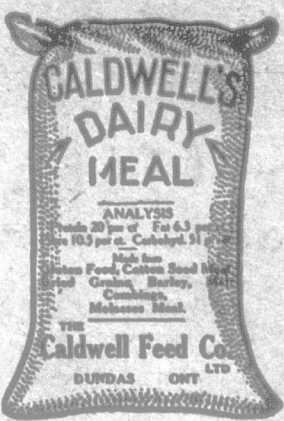
**Holsteins at Strathroy.**

Regarding the Holsteins to be sold at Strathroy on October 30, by the West Middlesex Holstein Breeders, Harry A. Tout, Secretary of the Association writes: "The sale consists of 40 head of registered Holstein cattle with best of backing. There are 37 females and 3 young bulls which should go to head some of the best herds in Canada, one being from a sister to the champion R. O. P. cow of Canada. As this is the first sale of this kind in West Middlesex, there will be nothing but the best offered. The sale will be held under cover if the weather is not favorable."

**Springbank Ayrshires.**

Following a recent visit to Springbank the home of the splendid Springbank herd of pure-bred Ayrshires owned by A. S. Turner & Son, of Ryckman Corners, Ont., our representative has words of only the very highest praise to offer. The show cattle just home from their unparalleled success at London were seen along with other members of the herd many of which, although equally as promising, were not out this season. Then, too, the general neatness of the entire farm surroundings was found quite in keeping with a herd of even this prominence. Messrs. Turner & Son are strong for both neatness and order, even about the farm and more so if possible when it comes to the Ayrshires. Their record in the showing, which is too well known to need lengthy comment here, will, with the reports for yearly production in the record of performance tests furnish ample proof of this. The Springbank herd has a combination of type and production that is almost impossible to excel. At both Toronto and London for several years past they have captured their full share of championship ribbons and in the Record of Performance test, present members of the herd hold the Canadian milk and butter record for the two-year, the three-year and the mature classes. Scotch Princess 2nd, another member of the herd, also held the four-year-old record for almost three years before it was broken which gives the herd the distinction of having held all records from two years to mature, during the past seven years. There is perhaps nothing that would be more interesting to the Ayrshire readers of these columns than to run over their reports of both the R. O. P. work and the Toronto and London exhibitions, covering the past several years and note the high standing of Mr. Turner's herd. At the time of our visit the herd in numbers ran around eighty head and the imported bull, Nether-ton King Theodore, was the senior sire in service. He is a bull of many outstanding qualities individually and was personally selected in Scotland by Mr. Turner, junior. His sire, Nether-ton King Arthur, is one of Scotland's most noted sires, and his dam, Wylie-land Tina 4th, has a 4-year-old milk record of 906 gallons in 36 weeks. Nether-ton King Theodore was second to Hillside Peter Pan, the senior-champion bull at London this year. Following the im-ported senior sire, the choice for a junior sire has also been wisely made in the young bull, Humeshaugh Invincible Peter, which defeated his sire, Hillside Peter Pan the 1916 Toronto and London champion, for the London champion-ship this year. It is useless to say that he is an exceptionally promising young-ster, his winning over his sire proves that, but it is also worthy of note that his dam, Bellsland Nan 4th, imp., has over 14,600 lbs. of nearly 4% milk for the year, and has also been a prominent Toronto winner. If you are looking for individuality backed by official records in your next herd sire it would be well to get full particulars regarding the Springbank herd.

**CALDWELL'S**  
**Caldwell's Dairy Meal**



supplies the demand for a highly protein, scientifically mixed, milk-producing ration for dairy cows.

It is prepared from re-cleaned materials, and contains no oat hulls or other low-grade ingredients. Caldwell's Dairy Meal is a pure, easily-digested, fully-balanced meal. Its only purpose is to increase the milk flow and keep the cows in perfect health. Give it a trial.

**The Caldwell Feed & Cereal Co., Limited**  
 Dundas, Ontario

Makers also of Molasses Dairy Meal, Cream Calf Meal, Hog Feeds, Molasses Horse Feed and Poultry Feed of all kinds.

**STANDARD FEEDS**

**34TH ANNUAL**  
**Ontario Provincial Winter Fair**  
 GUELPH  
 November 30 to December 6, 1917  
 ENTRIES CLOSE NOVEMBER 14th

W. W. BALLANTYNE, President  
 Stratford, Ont.

R. W. WADE, Secretary  
 Parliament Bldg., Toronto

**New COAL OIL LIGHT FREE**  
 BEATS ELECTRIC or GASOLINE

Here's your opportunity to get the wonderful new Aladdin Coal Oil Mantle light FREE. Write quick for particulars. This great free offer will be withdrawn as soon as some distributor starts work in your neighborhood. You only need show the Aladdin to a few friends and neighbors; they will want one. We give you yours free for this help. Takes very little time, and no investment. Costs nothing to try it.

**Burns 70 Hours on One Gallon**  
 common coal oil, no odor, smoke or noise, simple, no pumping up, no pressure, won't explode. Tests by Government and thirty-five leading universi- ties show the Aladdin gives three times as much light as best round wick flame lamps. Won Gold Medal at Panama Exposition. Over three million people already enjoying this powerful, white, steady light, nearest to sunlight. Guaranteed. And think of it—you can get it without paying out a cent. All charges prepaid. Ask for our 10-day Free Trial Offer and learn how to get one free.

**AGENTS WANTED**  
**MANTLE LAMP COMPANY, 231 Aladdin Building, MONTREAL.**  
 Largest Coal Oil Mantle Lamp House in the World



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

**WOODLANDS BROWN SWISS AND PONIES**  
 We have no Clydes. left for sale. Our special offering is Brown Swiss bulls out of high-testing and big-producing dams. Strictly high-class. Also Shetland and Welsh ponies.  
**R. BALLAGH & SON**  
 GUELPH, ONTARIO

**THE MAPLES HEREFORDS**  
 Herd Bulls:—HIGH IDEAL, Junior Champion, Toronto and London; CLAYTON DONALD, own brother to Perfection Fairfax (The World's Greatest Hereford Sire). Offering:—A few cows with calves and re-bred to Clayton Donald. A limited number of yearling heifers and calves, and several choice young bulls. Also a few Shropshire ram lambs. Correspondence invited.  
**W. H. & J. S. HUNTER, ORANGEVILLE, ONT.**

**PLEASANT VALLEY SHORTHORNS**  
 We have on hand one of the strongest lot of young bulls that we ever had in the stables. Strong in individuality and strong in breeding. Come and see them or write for particulars. We also have females, bred to our herd sire, Newton Grand Champion, Imp.  
**GEO. AMOS & SONS, 11 miles east of Guelph, C.P.R., MOFFAT, ONT.**

**Glengow Shorthorns**  
 We have a choice offering in young bulls, fit for service. They are all of pure Scotch breeding, and are thick, mellow fellows, bred in the purple.  
**WM. SMITH, Columbus, Ontario. Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.**



**Griffith's Classic Halter**  
 Wind and jerk and twist as he may, a colt cannot break or pull out of the Classic Halter. Made of leather, tough and flexible as a pig's ear, and 1/2-inch hard, tested rope. The Classic Halter is for colts up to 1 year old. Price, prepaid, \$1.00. (West of Ft. William, \$1.10).

**Griffith's Giant Halter**  
 For the older colts, or full grown horses, we recommend the Giant Halter. Both the Giant and the Classic are made to stand the kind of treatment they are expected to put up with. All parts are securely riveted. All fittings are of electric-welded steel. These prices hardly give all-leather halters a look-in. The Giant Halter, \$1.25 prepaid. (West of Ft. William, \$1.50.) At Your Dealer's or Direct. Write for illustrated Booklet showing other lines.

**G. L. GRIFFITH & SON**  
 No. 68 Waterloo Street  
 STRATFORD - ONT.

**Linseed Oil Cake**  
 "Maple Leaf" Brand  
 The best supplementary feed for live stock and the "Veterinarian," the best book on the treatment of Diseases in Cattle. This book sent free with a trial ton order of Oil Cake. Write to-day for lowest prices. Canada Linseed Oil Mills, Limited Toronto and Montreal

**Aberdeen-Angus Cattle**  
**Suffolk Down Sheep**

The greatest breeds for producing highest quality of beef and mutton. They are both hardy and prolific. We have bulls, females, rams and ewes for sale.

JAMES BOWMAN, Elm Park, Guelph, Ont.

**Alloway Lodge Stock Farm**  
**Angus—Southdowns—Collies**  
 SHOW FLOCKS

Rams and ewes. Heifers in calf to Queen's Edward. 1st Prize, Indiana State Fair.

Robt. McEwen, R.R. 4, London, Ont.

**Sunny Acres Aberdeen-Angus**  
 Home from the shows. Review both the Toronto and Ottawa reports in the Farmer's Advocate and note our winnings. We have young bulls of serviceable age that were winners, and others that were not exhibited. These are sired by one of our two herd sires—Elm Park Pat 8220 and Kinnaird Lad 7304. We invite correspondence and visitors are always welcome.

WM. CHANNON & SON, OAKWOOD, ONT.  
 Lindsay Station, C.P.R.—G.T.R.

**Kennelworth Farm Aberdeen-Angus**  
 A grand lot of calves for sale; ages in the neighborhood of 7 months. Victor of Glencairn at head of herd.

PETER A. THOMSON, HILLSBURG, ONT.

**Balmedie Aberdeen-Angus**  
 Get high-class Angus bull and breed the champion steers. I have show-ring quality bulls from 10 to 24 months of age; also choice 1 and 3-yr-old heifers. T. B. BROADFOOT, FERGUS, ONT.

**Beaver Hill Aberdeen-Angus Cows**  
 with calves at foot and bred again. Bulls of serviceable age, females all ages; a few Shearling Oxford Down ram lambs.

Alex. McKinney, R. R. No. 1, Erin, Ont.  
 Dr. Bell's Veterinary Medical Wonder, 10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys; Fevers and Distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly.  
 Dr. Bell, V. S. Kingston, Ont.

**Questions and Answers.**  
 Miscellaneous.

**Size of Cylinder.**  
 Q. What sized cylinder would work most satisfactorily in a pump operated by a windmill to draw water 130 feet with a lift of 15 feet, through a 1 1/4-inch pipe? It is to be forced through an inch-pipe for a distance of 40 rods with an elevation of 75 feet.  
 J. M.  
 Ans.—The cylinder should be somewhat larger than the pipe. A 2 or 2 1/2-inch one should work satisfactorily.

**Toll for Grist Mill.**  
 Is there any Act governing the amount of toll which grist-mills exact? Our mill gives 32 pounds of flour, 3 pounds of shorts and 6 pounds of bran for a bushel of standard wheat.

2. A man's wife holds the deed to property, but the husband pays the interest on the mortgage and has the receipt in his name. If the wife dies first can she will the place to whom she wishes, or will the husband have any claim?  
 P. P.

Ans.—1. We do not think there is any law governing the amount of toll at the present time. The amount necessarily varies with the grade of wheat and with the cost of manufacturing flour.  
 2. The wife may will the place to whomsoever she wishes.

**Forming an Association.**  
 How is a Dairymen's Association organized? What are the rules for same? Where may I secure the rules? G. O.


Ans.—A number of men in a community interested in the same line of work and wishing to unite their efforts to further promote their business, may meet together and effect an organization. It is necessary for someone to call a meeting of those interested and then discuss the pros and cons of organizing and outline the objects of organizing. Various rules and regulations may be laid down, depending somewhat on the object in view; that is, whether the organization is for promoting larger markets for buying supplies or whether it is an educational propaganda. Write G. A. Putnam, Parliament Buildings, Toronto, for rules and regulations.

**Bitten by Dog.**  
 A man stopped at a house on a Sunday to ask where a certain man lived, but knowing that he did not live there as he could see the man's name on the gate. The people of the house were away and the dog bit him on the leg and tore his suit. He motored to the nearest town, and went to the doctor. Could he not have changed doctors as this was about twenty miles from his own home town. He called the next day and told the man that his dog had bitten him, but as there was no one on the place to see the dog bite him but the persons with him could he lawfully claim from the owner of the dog, a new suit of clothes, pay for gasoline used in going to the doctor, pay for time lost in dressing the wound and to pay the doctor's bill?  
 J. P.  
 Ans.—Not likely.

**Wagon Purchase.**  
 At a recent auction sale I bought a wagon which was advertised on the bills as a wagon and was put up at the sale as a wagon. It consisted of gear only with a set of whiffletrees in their proper place and a neckyoke thrown across the hounds. There was nothing said about the whiffletrees or neckyoke so I would suppose they sold with the wagon. When I went after the wagon they had been removed by the former owner who said they were not sold with the wagon. He said as they were not advertised on the bill they were not supposed to be with the wagon. I offered to go to the auctioneer for a decision but he refused. I went to the auctioneer and he said as they were not mentioned at the sale they sold with the wagon. I would like to know through your paper:  
 1. Who do the whiffletrees and neckyoke belong to.  
 2. If they are mine how should I proceed to get them. A SUBSCRIBER.

Ans.—1 and 2. From your statement of the case and the opinion of the auctioneer we should say the whiffletrees and neckyoke should go with the wagon. Take the auctioneer to the place and reason it out with the seller. If he refuses and you think it worth while enter action to recover the parts. It is scarcely worth while going to law over so trifling an amount.

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But are you certain you will live to pay your debts? Who'll pay them if your summons comes before they are wiped out—your widow? She may have enough trouble making a living without struggling with the burden of your debts.

Because you are in debt you should have an Imperial Life policy. Then when you die, the claims of your creditors will be provided for—and so will your family.

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**61 HEAD**

**50 High-Class SHORTHORNS**      **11 Top-Notch HEREFORDS**

Well bred, well grown, well conditioned. An assorted offering, all good; from descendants of some of the most noted sires in the country. The sale to attend for cattle and breeding that is worth while. Catalogues and full information on request. See later issues for further particulars.

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**SHORTHORNS**  
 I can spare a couple of cows, imported or Canadian bred with calves at foot and in calf again to Imp. Dalesman. I can also give one the choice of fifteen bulls from five months to two years old. About half are Imp. They are priced to sell. Write or come and see me. A. G. Farrow, Oakville, Ont.

**IMPORTED SHORTHORNS**  
 Thirty-five imported cows and heifers, forward in calf to service in Scotland; also five imported bulls. Our 1916 importations are all choicely bred. Have also home-bred bulls and females. Farm half mile from Burlington Junction. Write or call and see us. J. A. & H. M. Pettit, Freeman, Ont.

**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.

**Blairgowrie Shorthorns and Shropshires**  
 I have 25 imported shearing rams as well as a number of Canadian-bred ones. These are a rare, good lot, priced right. Can also spare a few more ram and ewe lambs (Canadian-bred.) Usual offering in Shorthorns. JOHN MILLER, ASHBURN, ONT. Myrtle Sta., C. P. R. and G. T. R.

**SPRING VALLEY SHORTHORNS**  
 Herd headed by the two great breeding bulls, Newton Ringleader (imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex.  
 KYLE BROS. DRUMBO, ONT. PHONE AND TELEGRAPH VIA A.Y.R.

**OAKLAND---55 SHORTHORNS**  
 A herd of feeders, breeders and milkers that give satisfaction wherever they go. One bull for sale, 18 months, white, extra milk strain. Also females, any age. Priced so you can buy. One of the finest bulls in Ontario heads this herd.  
 JNO. ELDER & SON, Hensall, Ontario.

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The Cutter Laboratory, Berkeley, Cal., or Chicago, Ill.

**Mardella Shorthorns**

Dual-purpose bulls, 20 young cows and heifers—bred, some calves by side. Size type, quality; some full of Scotch. The great massive Duke—dam gave 13,599 lbs. milk, 474 lbs. butter-fat—at the head.

Thomas Graham, Port Perry, R. 3, Ont.

**A GOOD SHORTHORN BULL FOR SALE**

A rare opportunity to secure the high-class bull, Sea King #84702—Mayflower bred son of the great Trout Creek Wonder. Red roan, 5 years old. For particulars write:

W. W. SCOTT, R. No. 2, HIGHGATE, ONT.

**Spruce Lodge Shorthorns and Leicesters**

Sire in service, Roan Chief Imp. #0885. Young bulls from 10 to 14 months, and a choice lot of rams and ewes. All by imported sires.

W. A. Douglas, Caledonia, Ontario.

**Plaster Hill Shorthorns**

Two 2-year-old bulls, one yearling bull, one bull calf. Heavy-milking families.

F. Martindale & Son, Caledonia, R. R. 3, Ont.

**Glenfoyle Shorthorns** Present Offering—Choice young cows and heifers. Young bulls of the best dual-purpose families; also four females of Scotch breeding for sale. Prices right.

STEWART M. GRAHAM, LINDSAY, ONT.

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

PETER CHRISTIE & SON  
Manchester P. O. Fort Perry, Ont. Co.

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

**MAPLE LEAF FARM**

Shorthorns, some good young bulls and females. Shropshires, 50 lambs. Our flock leading winners on Eastern show circuit.

John Baker, Hampton, R. No. 1, Ont.

**Questions and Answers. Miscellaneous.**

**Meat for Fowl.**

Can anyone tell me how to dry or otherwise preserve horse flesh for feeding poultry? I would rather not salt it. W. B.

Ans.—You might try smoking it but we do not know whether the fowl will eat smoked meat or not. It is coming the season of the year when meat may be frozen, but outside of these two methods it is difficult to preserve it for any great length of time without salt.

**Author of Poem.**

Who is the author of the following lines: "And the parson made it his text that week, and he said likewise, That a lie which is half a truth is ever the blackest of lies, That a lie which is all a lie may be met with and fought outright, But a lie which is part a truth is a harder matter to fight."

F. W. H.

Ans.—These lines are found in Tenyson's poem "The Grandmother."

**Feeding Horses.**

I wish some advice about feeding horses. What is the proper amount of hay and grain to feed hard-worked horses during the summer? S. G.

Ans.—No hard and fast rule can be laid down, as it depends so much upon the nature of the work, the weight of the horse, quality of feed, etc. A safe rule is to allow one pound of hay and one pound of oats to each 100 pounds of horse. This would make 12 pounds of hay and 12 pounds of oats for a 1200-lb. horse. With continued heavy work the grain might be increased somewhat, but when the work is reduced or the horse is idle the grain ration should be greatly reduced in order to avoid digestive troubles setting in. The trouble with many feeders is that they give their horses too much hay. If the animal is out of condition a little oil cake may be fed and bran might be included in the ration. A feed of boiled grain is a very good thing to give Saturday nights.

**Failure to Breed.**

What can be done for cows that come in heat every few weeks? Have tried two different bulls. I have never had this trouble with the cows until this year. Have four two-year-old heifers and they act like the cows. F. A. M.

Ans.—This trouble sometimes occurs without any apparent cause. Have your veterinarian examine the animals. It is possible that the entrance to the womb has become closed. If everything is all right physically the yeast treatment may give results. Mix an ordinary cake of yeast to a paste with a little warm water and allow to stand for 12 hours in a moderately warm place, then stir in one pint of freshly-boiled luke-warm water and allow to stand for another 8 or 10 hours. The mixture will then be ready for use and the entire quantity should be injected into the vagina of the animal to be bred. Use the mixture when period of heat is first noticed and breed when period is about ended.

**Overfat Fowl.**

I have a flock of 25 hens. Three of them became very fat. I killed one of them and found three large lumps which looked like hard-boiled eggs. I killed the other two and found them the same. Several of the other hens are beginning to get unusually fat; other than this they appear perfectly healthy and their combs are red. Is this a disease and will I have to destroy the entire flock? D. S. G.

Ans.—We believe the trouble is due to the birds becoming overfat and it is possible they may have become egg-bound. This condition sometimes occurs when birds are confined to a small pen. If on free range they get exercise which prevents them from becoming too fat. The ration is not stated, nor is it mentioned whether or not these birds are on free range. If confined to small quarters, you might try reducing the ration and burying the grain in a foot or more of straw so that the birds would have to work to get it. The symptoms given indicate constitutional disorder but not exactly a disease, and unless there were some specific symptoms of trouble other than that mentioned we do not think it would be necessary to get rid of the entire flock.

**THE CANADIAN SALE of 1917**

**125 SHORTHORNS**

75 Cows and Heifers with a number of calves at foot.  
38 Young Bulls

The Greatest Shorthorn Event of the Year  
FRASER HOUSE STABLES  
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INCREASE PRODUCTION—and also your profits by making selections from consignments to "The Greatest Shorthorn Sale of the Year". There will be cows with calves at foot, heifers safely bred and bulls ready for service. All carefully selected and sold under absolute guarantee. In this year's offering are "lots", sired by such noted herd bulls as Sea Foam, Blarney Stone, Royal Warrant, Imp., Roan Chief, Imp., Hillhead Chief, Imp., Choice Archer, Imp., Archer's Sultan, Clipper Minstrel, Clansman, Senator Lavender and others. Many of the pedigrees, too, are chock-full of Cruickshank, Duthie, Marr, Bruce, Anderson and Campbell breeding, making up not only the strongest lot of families we have ever offered, but the strongest lot individually as well. Come and make the crowd representative even if you don't buy. We want you with us on November 7th. We will make you comfortable.

Owing to the large number to be sold, the sale will start promptly at 12 o'clock, noon. Come on the evening of the 6th and look them over.

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**WM. D. DYER SHORTHORNS.** Pure Scotch or Scotch-topped beef type, yet good milkers. 3 young bulls and a few young cows and heifers for sale.

**R. S. Oshawa, Ont. Brooklin, SHROPSHIRE.** Type and quality. A few ram lambs still left.

**G. T. R. C. N. R. CLYDESDALES.** Stallion 1 yr. old, rich in Baron Pride blood, promises size and quality combined.

**Myrtle, C. P. R.**

**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.

**IMPORTED SHORTHORN BULLS**

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

**WILLOW BANK STOCK FARM**

Shorthorn Cattle and Leicester Sheep. Herd established 1855—Flock 1848. The great show and breeding bull, Brownale = 80112 = by Avondale, heads the herd. Extra choice bulls and heifers to offer. Also a particularly good lot of Leicester rams, mostly from imp. ewes.

JAMES DOUGLAS, CALEDONIA, ONT.

**1854 MAPLE LODGE STOCK FARM 1917**

SHORTHORNS AND LEICESTERS  
Three Shearing rams, some lambs and ewes for sale.

MISS CHARLOTTE SMITH R. R. 1, CLANDEBOYE, ONT

**SALEM SHORTHORNS**

Herd headed by Gainford Marquis, (Imp.), undefeated in England and Canada. Sire of the winning group at Canadian National, 1914, 1915, 1916. Can supply cattle, both sexes, at all times.

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**SPRUCE GLEN SHORTHORNS**

of such popular strains as Minas, Fames, Miss Ramadens, Florences, Emlys, etc.

Have still a few young bulls—thick, mellow fellows, fit for service.

JAMES MCPHERSON & SONS DUNDALK, ONTARIO

**Maple Shade Farm—SHORTHORNS**

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

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

**IRVINDALE SHORTHORNS**

Senior Sire, Gainford Select. Junior sire, Marquis Supreme. We have at present three sons of Gainford Select that are ready for immediate service; two that will be ready soon and others coming on. The best place in Canada to get a grandson of Gainford Marquis. We also have several cheaper bulls, one good Right Sort heifer and are offering Gainford Select. See him or any of the others if interested.

JNO. WATT & SON, ELORA, ONTARIO

**Robert Miller, Stouffville, Ont.**

still has a few Shorthorn bulls, fit for service, and some females that are as good as can be found for the man that wants to start right in Scotch Shorthorns. They will be sold at a low price, considering the quality, and the freight will be paid.

Write for anything in Shorthorns and Shropshires. One hour from Toronto.

**HOLSTEINS**

Present offering: a number of yearling heifers by Butter Baron, a son of the 33-lb. champion cow, Queen Butter Baroness. Also some choice young cows due to freshen this fall and early winter. A few young bulls by the herd header will be sold right. Get of Butter Baron was first at Toronto and London this year.

M. H. Haley, Springford, Ont.

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If is anything in the feed line, we have it. In car lots or less. Write or 'phone for prices.

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**MAPLE SOIL STOCK FARM HOLSTEINS**  
Fine quality, typey, heavy-producing Holsteins—forty head to choose from. The females are sired by Idaline's Paul Veeman and King Segis Pieterje, and are in calf to FINDERNE King May Payne. Two bull calves, about ready for service, sired by the latter bull and out of heavy-producing cows, for immediate sale. Females in milk have made high records and sires used have the backing and are proving good. Correspondence solicited, visitors welcome. **H. C. HOLTBY, GLANWORTH, ONT.**

**SILVER STREAM HOLSTEINS**  
Just now we are offering our two junior herd bulls, aged 2 and 3 yrs. Individually as good as their breeding; sired by King Lyons Hengerveld and King Lyons Colantha. Personal inspection is invited. **J. Mogk & Son, R. R. No. 1, Tavistock, Ont.**

**Pioneer Farm Holstein Herd** With big yearly records and high average butter-fat test, and headed by **Canary Hartog**, grandson of Royalton Violet at 10 years, 30.39 lbs. butter, 735 lbs. milk in 7 days; 29,963 lbs. milk, 1,300 lbs. butter in 1 year. Sire's dam, Royalton De Kol Fern, 34.60 lbs. butter in 7 days, 116 lbs. milk in one day. Bull calves for sale, born after Jan. 25th, 1917; dams over 11,000 lbs. milk up to nearly 16,000 lbs. milk in 1 year, at 2 years old. **Walburn Rivers, R. R. No. 5, Ingersoll, Ontario. Phone 343L, Ingersoll Independent Line.**

**Riverside Holsteins** Herd headed by "King Johanna Pontiac Korndyke" a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 156.92 in 30 days—world's record when made. His ten nearest relatives have official record that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R. of P. cow of Canada was bred here. Choice young bulls for sale. **J. W. RICHARDSON, R. R. No. 2, CALEDONIA, ONT.**

**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 new 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.**

**Low Banks Farm Holsteins** Fairview Korndyke Boy, our senior herd sire, is son of Pontiac Korndyke, from a daughter of the same sire, and is proving his relationship to his noted sire in his daughters, 4 of which have made over 20 lbs. butter each in 7 days. Only 2 sons of Fairview left, nice, straight, deep-bodied fellows. Have 2 sons of Sir Echo, ¼ brother to May Echo Sylvia—beautiful individuals. **K. M. Daigleish, Kenmore, Ont.**

### Questions and Answers. Miscellaneous.

**Securing a Hunter's License.**  
If a resident in the Province of Ontario wishes to procure a hunter's and trapper's license, to whom should he apply for same?  
**R. L. T.**  
**Ans.**—Write Deputy Minister of Public Works, Parliament Buildings, Toronto.

**Hay in Mow.**  
How many tons of hay would there be in a pile 12 feet long, 8 feet wide and 5 feet high? A couple of tons of grain were stored on top of it for a while. N. S.  
**Ans.**—It is generally estimated that a ton of settled hay will take about 450 cubic feet of space. On this basis you would have a trifle over one ton.

**Butter Does Not Gather.**  
We are milking two cows and have trouble to get the butter to gather. We have done everything we know of but the cream froths up in the churn and is somewhat bitter. One cow has been milking since last November and the other since December. The first cow mentioned is giving a nice flow of milk. What is the cause and remedy? Would saltpetre be injurious to cows? What quantity should be given.  
**H. C. V.**

**Ans.**—There may be various causes for the butter failing to gather. Holding the cream too long before churning would have a tendency to develop a bitter flavor and possibly the development of bacteria which would cause foaming in the churn. There is frequently difficulty with cows that have been long in milk. If possible give the cows succulent feed, such as roots or corn, although this should not be particularly necessary if on grass. Cool the cream before adding it to the main supply and try pasteurizing before churning; that is, heat it to 135 degrees or thereabouts for 20 minutes, and cool to churning temperature. Use a thermometer; the hand is sometimes deceiving in determining the temperature of cream. If you could secure a fresh cow the trouble would be lessened. Even with the greatest care there is difficulty in getting the butter to gather when the cows are well advanced in the lactation. Saltpetre may be given to a cow for certain ailments. Three or four teaspoonfuls would be a fair dose. It is not advisable to administer drugs except for specific ailments.

**Periodic Ophthalmia.**  
Will you publish in your paper the symptoms of periodic ophthalmia. Is it contagious or hereditary? I have a horse that keeps one eye closed and it discharges matter freely. When I open the eye there seems to be a scum over it. As far as I know he has never had sore eyes before. Is this ophthalmia? Kindly advise treatment.  
**E. R. B.**

**Ans.**—The symptoms of periodic ophthalmia are: The attack is generally sudden and without apparent cause; the eye appears to be inflamed; the dullness of the eye spreads from the margin to the centre; the pupil becomes contracted and the conjunctiva intensely reddened; inflammation may move from one eye to the other. It is a constitutional disorder arising from some cause acting primarily on the constitution and secondarily on the organ of vision. It usually terminates in cataract, and finally in total blindness. A simple ophthalmia which may be caused by common cold or the lodgment of a foreign body in the eye, has symptoms similar to those of the periodic, although the inflammation is probably more acute. The eyelids swell and there is secretion of tears. If the eyelid is turned up the conjunctiva will be found to be congested and covered with red streaks with the surface of the cornea rather dim and blue looking. The periodic ophthalmia is an inherited predisposition rather than contagious. For both the simple and periodic treatment consists in administering a laxative as 1½ pints of raw linseed oil. Keep the patient in a comfortable stall excluded from drafts and direct sunlight. Get a lotion made of 10 grains sulphate of zinc, 20 drops fluid extract of belladonna and 2 ounces of distilled water. Bathe the eyes three times daily with hot water and after bathing put a few drops of the lotion into each eye. Recovery is very often slow so that treatment should be continued for some time.

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It makes ditching easy and enables one man to do the work of ten.

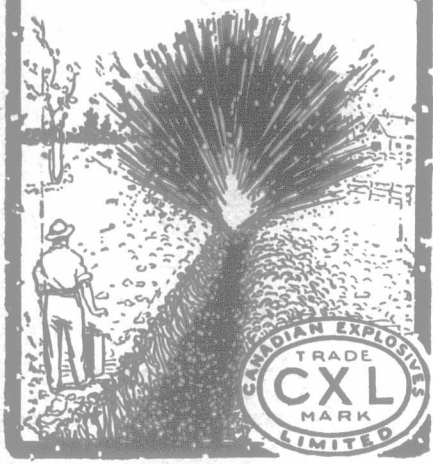
Use C.X.L. Stumping Powder to blow out the stumps and boulders—to plant fruit trees, to break up sub-soil. It saves time, money and labor. Safe as gun powder.

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**Manor Farm Holsteins**

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

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**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 granddams 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.**

**HOLSTEINS**

Twelve to fifteen females, cows, heifers, calves; extra well bred, choice individuals. Priced reasonable to anyone taking the lot; also two bull calves, grandsons of "King Pontiac Artis Canada." Inspection invited.

**WM. A. RIFE, Hespeler, Ontario**

**Over Development.**

EDITOR "THE FARMER'S ADVOCATE":

The article in your issue of Oct. 4, "Be moderate in all things," by Allan McDiarmid, seems to me one of unusual interest. If the positions taken are in accord with facts it appears that all our pre-conceptions, and the teachings of several decades must be revised. Much is suggested in the article which may not appear at first sight. Perhaps most of us have noted the points cited by Mr. McDiarmid, but have given little thought to the subject. In our busy every-day life on the farm we are apt to take a great deal for granted and to do very little thinking or investigating. Often we are but slightly cognizant of facts, to say nothing of causes, principles or consequences.

We have been taught by platform and college lecture, by the press, and we feel that experience also teaches the doctrine of indefinite progressive selection and development in the plant and animal worlds. Is not the same doctrine or hypothesis taught from the pulpit and in theological schools?—Nay, even a larger phase of the doctrine—the intellectual and moral development of man through indefinite degrees and cycles. Are our hopes to be disappointed, our aspirations thwarted, and we ourselves to become degenerate and blighted like the potato cited in the article? The writer also cites instances of degeneracy in animal life and states that "It is the same with the human race." "It seems certain that the logical end of cultivation is the disappearance of the race, and the higher the culture the sooner will be the end. If the civilized nations of the world do not get back to more natural ways of living it won't be long until the less cultured races will be taking their place. They will all go the way of the potato, and for the same reason." The question may be asked, though the logical end may be as stated, is it therefore the natural end? To put the question in other words, may not the trouble be abnormal or unnatural development rather than over-development? The writer refers to his positions as "scientific facts." We should agree, however, that scientific facts are not always or necessarily natural facts. Human science may be false or not true to nature. But surely nature had not decreed that potatoes should always be "plum-sized", that the hog should always be razor-backed, that the ox should forever retain long horns and a shaggy coat, that the horse should not by careful, continued selection and breeding become the beautiful and noble animal he is to-day, that man should remain, or degenerate into, a pigmy or a savage! If such were the design of nature, obviously colleges, teaching and professorships should cease or should never have existed. The "naked fisherman" should still "wash his nets in the river of the ten thousand masts," the human race should yet be cave-dwellers in physical deprivation, in mental and moral darkness, without ambition, aspiration knowledge or hope. I recoil from the alternative; I deprecate the prospect. I am willing to take the risk of over-development of the race. There surely cannot be such a thing as over-development along right lines or according to the spirit and plan of the universe, and the teaching of the Noblest of Earth's Sons.

On the hypothesis, then, that over-development in normal or natural lines is even a possibility, the following appear to be the logical and necessary inferences: Bakewell, the noted originator of Short-horn cattle, instead of devoting his genius and energy to the task of evolving this important type by means of systematic selection and breeding of the best specimens of the native long-horned cattle, should have quietly smoked his pipe, leaving the Long-horns to perpetuate their race, to flourish and endure in their native wilds. Charles Colling, Booth Brothers, Bates, and others should have followed his example. So should Hugh Watson, the first great breeder of Aberdeen-Angus, and the Tomkins' family, originators of the Hereford cattle, and so on through the list. The early improvers of the horse should have "repressed their noble rage and froze the genial current of the soul". Such men as Sir John Sinclair, Lawrence Drew, John Paterson and the many of less note should have found other employment than starting the native horse on his

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**60 Head Registered Holsteins**

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HERD is headed by Baron D. Fayne; dam, Daisy B. Fayne 2nd, at three years 520 lbs. milk in 7 days and 23 lbs. butter. Sire, Butter Baron, out of Butter Baroness with over 33 lbs. butter in 7 days. Some choice young heifers and bulls in the herd. Foundation cows from the best herds in the country. Sale at 1 p.m. Parties from a distance met at Grigg House, London, up to 12.30, day of sale.

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40 Choice, Registered

**Holstein-Friesian Cattle**

Consisting of the herds of Messrs. H. Tout and Merrick. A number of the cows have just freshened and a number of others soon to freshen. All will be sold without reserve. There will also be sold a number of Clydesdales, one imported mare and other horses.

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Herd sire, AVONDALE PONTIAC ECHO (under lease) a son of MAY ECHO SYLVIA, the world's record cow. Only one other 41-lb. bull in Canada. We have young bulls for sale whose two nearest dams (both Canadian champions) average as high as 35.62 lbs. butter in seven days; another whose two nearest dams are both 100-lb. cows; and one ready for service from a 41-lb. sire and an 18,000-lb. two-year-old dam. Send for our BOOK OF BULLS. A few females for sale. Satisfaction guaranteed.

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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.

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Present offerings are 4 grandsons of Dutchland Colantha Sir Mons, and high-testing, large-producing R. of P. dams of Korndyke and Aaggie DeKol breeding. Born during April and May, 1917. Apply to Superintendent.

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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.

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175 head to choose from. Special offering—bulls from one month to one year old.


**S. G. & ERLE KITCHEN Grandsons of Prince Aaggie Mechthilde. Visitors always welcome ST. GEORGE, 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.

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**4.07%** Butter Fat was the average from 971 Ayrshire Cows for 1 yr.

WRITE W.F. STEPHEN, Secretary  
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## Fernbrook Ayrshires

Young bulls for sale (out of R.O.P. dams) from one to fifteen months old; tracing closely to the world's champions, Garclough May Mischief and Jean Armour.

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## 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 Beag & Son, R. R., St. Thomas.**

evolution into the noble animal he is today! For fear of over-stimulation and over-development the human race should also have been left in their pristine crudity and simplicity. The born intellectual giants of the race should have crushed their earth-born, or shall I say heaven-born, ambition for self- and race-improvement. Schools and seminaries of learning should never have been instituted, the great science of mathematics, which has armed man with such wonderful powers, should not have been devised or formulated. By its aid man should not have been enabled to navigate the oceans, to measure and weigh the earth, to explore its continents and find its wealth of lake, river, forest and fertile soil. Neither, through risk of over-development, should he have presumed to direct his gaze or his thoughts to the glories of the midnight heavens, to scan the stars or to calculate their magnitudes and interspaces.

Further, if analogy rules in the cosmos, and we believe it does; if Milton was right in his conception that "Earth is but the shadow of heaven, and things therein each to other like more than on earth is thought", then, if the race of earth is liable or doomed to become extinct—to blight as the potato and pass away—heaven, also, or the supposed potential higher state of man, is a myth, and the theologies of the ages are false. Are we prepared to accept the hypothesis?

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

### Sky-High Sheep Prices in England.

EDITOR "THE FARMER'S ADVOCATE":

Sheep prices are up all round again this fall in Britain. Store (half-fat) ewes of the Shropshire breed have been making 100 shillings to 108 shillings each, as against 45 to 50 shillings in pre-war days. In Kent the Romney Marsh breeding ewes are now selling at 70 shillings to 94 shillings as against 64 to 77 shillings a year ago. Draft Dorset Down ewes have made 76 shillings to 82 shillings in Dorchester Fair, a rise of ten to twenty shillings on the year. Dorsets, however, there have realized 88 to 113 shillings; another big jump in twelve months. Cross-bred ewes at Ayr have risen 5 shillings per head on the year.

Oxford-Down stock ewes at Hereford have cost 105 shillings apiece. Shropshire breeding ewes offered in Shrewsbury have fetched 115 shillings apiece, and so the great, big game goes on.

Southdown grass-fed rams just marketed in the ordinary way have made 9 guineas each at Ashford in Kent.

Lincoln Longwool rams make big money at our ordinary sheep fairs—28 guineas at Brigg for one of G. Spilman's, and 27 guineas for one of W. B. Swallow's. At Sleaford one of F. Money's realized £46 4s. E. F. Jordan's Leicester rams in Driffield market made 20 guineas, and fifty of Hobbs' Oxford shearlings at Northampton realized an average of £16 each. Thus do British farmers get rid of their well bred sheep stocks at ordinary country market sales, without boosting or spending a cent on advertising. Lord Barrymore has been getting 19 and 17 guineas each for his Shropshire rams in Ireland, where G. R. Acheson's Roscommon sheep have made 16 guineas.

Some extraordinary prices were made at Otham in Kent, on September 26th, where J. B. Betts' flock of Romney Marsh sheep, 608 strong, were disposed of for £5,538 6s. 8d., or £9 3s. 9d. apiece. Yearling ewes averaged £12 each; one-lamb ewes the same figure; two-lamb ewes £11; flock ewes £5 16s.; ewe lambs £5; yearling rams £14; stud rams £32; and ram lambs £4 each. The main buyers were representatives of big sheep runs in the Falkland Islands and the Argentine. It was good, however, to see that a R. Wright was buying for Patrick, Ilderton, Ontario, Canada, and it would be a good move if Canadian farmers would take more of these Romney sheep. They are hardy rustlers and thrive on the marshes of Kent which at some periods of the year are bleak and not too well clothed with grass. Patrick's buyer got lots of five yearling ewes at 28 guineas, 12½ guineas, 11 guineas, 19 guineas and 16 guineas. The 28-guinea lot were real classical studies of mutton mould and beautiful fleeces. The Argentine buyers were "after" the yearling rams and paid up to 75 guineas for one.

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## AUCTION SALE OF PURE-BRED STOCK

Under instructions from the Minister of Agriculture, there will be held at the

### Ontario Agricultural College GUELPH, ONTARIO

ON

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A Public Sale of Surplus Pure-bred Stock belonging to the Ontario Government and comprising Shorthorn (Beef and Dairy), Holstein, Jersey and Ayrshire cattle; Yorkshire and Berkshire Swine.

For catalogues apply to

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**SPRING BANK R.O.P. AYRSHIRES**

Herd Sires, Netherton King Theodore, Imp. and Humeshaugh Invincible, Grand Champion London, 1917. Our herd at present holds the Canadian records for both milk and butter in the two-year, three-year and the mature classes. Let us tell you about the daughters of Netherton King Theodore. We have sons of both bulls for sale—all have R.O.P. dams. Visitors met at Hamilton by appointment.

**A. S. Turner & Son (3 miles from Hamilton) Ryckman's Corners, Ont.**

**Glenhurst Ayrshires** For 50 years I have been breeding the great Fios tribe of Ayrshires; dozens of them have been 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.**

**RAVENSDALE AYRSHIRES**

We have a number of exceptionally good bulls as well as a choice lot of young heifers that we can offer at present. They are all sired by Auchenbrain Sea Foam (Imp.) or cherry Bank Fair Trade 44413. We can also spare a few young cows with the best of type and breeding. Come and see the Ravensdale herd. Correspondence solicited.

**W. F. Kay, Phillipsburg, Que., St. Armand Station, C. P. R.**

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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.

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**THE WOODVIEW FARM JERSEYS**

CANADA'S MOST BEAUTIFUL JERSEY HERD The foundation of this herd is made up of very high-class cows, imported from the Island of Jersey, most of them in the Record of Performance, and while we have, at all times, a few mature cows for sale, we make a specialty of in-calf heifers and young bulls. Write us your wants, or better still, come and see the herd. We work our show cows and show our work cows.

**LONDON, ONTARIO John Pringle, Prop.**

**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.

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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.

### SOUTHDOWNS

Special offering of shearing rams, ram and ewe lambs. This stock is by the great Gatton Park, imported ram, and the foundation are descended from the noted flock of the late John Jackson. Ram from this flock stood ewer champion at Toronto and champion at London.

J. W. Springsted & Sons, Calster Centre, Ont.  
Phone—Smithville.

### Kelsey's Shropshires.

This flock won both flock prizes at Toronto and all flock prizes but one at London this year in strong competition. Specially fitted yearling rams and a few ram and ewe lambs for immediate sale.

John R. Kelsey, Woodville, Ont.

**Leicesters, Shorthorn Cattle, and Berkshire Pigs.** Ram lambs and ewes at reasonable prices. Two bull calves, 5 and 6 months. A few Berkshire sows.

Dunnet Bros., Lythmore, Ont.

**SHROPSHIRE**  
20 YEARLING RAMS—12 YEARLING EWES  
W. H. PUGH, MYRTLE STATION, R. R. 1  
Farm 2 miles from Claremont.

When writing please mention Advocate

### What the Woodlot Means to the Farm.

Woodlots on the farms can be made an important factor in the relief of the threatened fuel shortage. Farmers and the residents of smaller towns and villages situated within hauling distance of woodlots, should, as a measure of practical patriotism, use wood in preference to coal.

Few farmers realize the value of the crop which can be obtained from their wood lots. If even a small proportion of the attention given to other crops were devoted to the protection and improvement of the "bush" a good financial return could be secured. Aside from its value in affording protection against wind and storms, its importance in the conservation of soil moisture and its aesthetic value, the woodlot has a considerable value for the crops which can be harvested from it every year at a minimum expense. It should have a place on every farm.

Live stock should be excluded as they destroy the natural reproduction, injure the larger trees and pack the soil so that the growth of the trees is retarded. Defective and diseased trees should be removed first; then those of poor form, such as very crooked or very branchy ones which interfere with the growth of better-formed neighbors. The trees of the less valuable species such as dogwood, ironwood and hornbeam should then be removed. Every effort should be made to secure natural reproduction, but, if that be impossible, planting will be found profitable.

The tendency has been to encourage the growing of soft-woods suitable for lumber, such as pine, spruce and cedar, but the function of a farmer's woodlot is better fulfilled by producing hardwoods for fuel.

The fuel value of one cord of several of the common kinds of wood is equal to the following quantities of anthracite coal:

Hickory and hard maple, 1,800 to 2,000 lbs. of coal; white oak, 1,540 to 1,715 lbs. of coal; red oak, black oak and beech, 1,300 to 1,450 lbs. of coal; poplar, chestnut and elm, 940 to 1,050 lbs. of coal; pine, 800 to 925 lbs. of coal.

Therefore, hardwood is worth, to the owner of the woodlot, from \$6.00 to \$9.00 per cord, as compared with coal at \$10 per ton, plus the cost of hauling it out to his farm.

If a yield is to be sustained permanently, it should not exceed the annual growth which, in unmanaged woodlots, probably does not exceed 3/4 cord per acre. This production can be considerably increased by careful management. A woodlot may be considered as similar to a savings' bank account from which the annual interest, represented by the growth, may be taken out or allowed to accumulate. In the case of the woodlot, however, the withdrawals can be so made as to greatly benefit the condition of the stand and improve its productivity.

The Dominion Forestry Branch and the various provincial forestry organizations have done much to encourage farm forestry by supplying advice and assistance. The Dominion Government distributes annually between 3,000,000 and 3,750,000 seedlings and cuttings among the farmers of the prairie provinces. In Ontario, the Forestry Branch of the Department of Lands, Forests and Mines also supplies seedlings for planting in farmers' woodlots.—ROLAND D. CRAIG, in The Forestry Journal.

### Questions and Answers.

#### Miscellaneous.

**Wheat Prices.**  
What is the definite price set for wheat? What price can a farmer demand at the mill?  
T. C.

Ans.—The price of wheat set by the Grain Supervisors of Canada is \$2.21 for No. 1 Manitoba Northern, and No. 1 Alberta Red, basis Fort William and Port Arthur. This is the maximum price for that grade; lower grades of wheat are lower in price. As this is the maximum price the farmer is not in a position to demand a stated price from the miller but as a rule when a maximum price is set the price which the farmer receives is in that neighborhood, depending on the quality of the grade.

### 1 1/2 H. P. On Skids with BUILT-IN MAGNETO



# \$71.

3 H. P. \$126.00  
6 H. P. \$225.00

F. O. B. Toronto or Montreal  
Scarcity and increased cost of material make this advance in price, effective after October 1st, imperative.

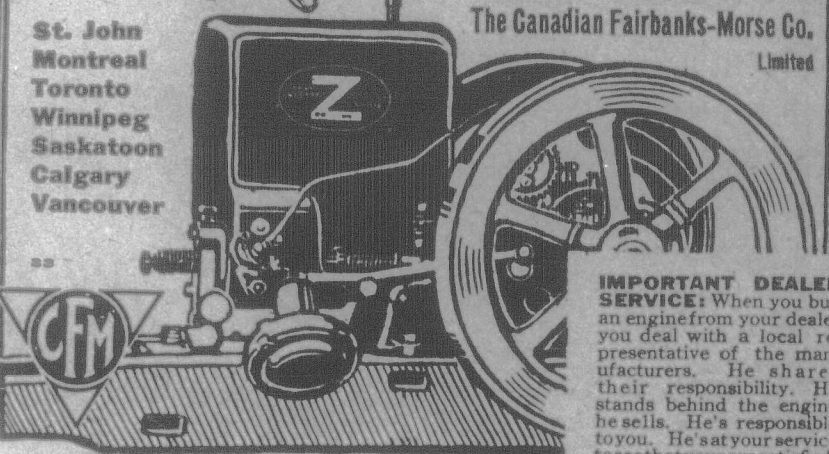
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### Southdown Rams for sale Shropshires and Shorthorns

We have still a choice lot which we are offering for quick sale at reasonable prices. These include the sire of the 1st prize pen of lambs at Toronto and Ottawa this fall. Also one pair of choice Oxford Ram Lambs.

For description and prices write:  
**HAMPTON BROS.,**  
Bell Phone, R. R. 3, Fergus, Ont.

Rams and ewes, also young bulls.

E. E. Luton, R. R. 1, St. Thomas, Ont.

### Elm View Oxford Downs

Fifteen yearling rams and ewes including Winter Fair prize ram; 50 ram lambs and 25 ewe lambs. Prices reasonable. Visit or write.  
Bruce A. McKinnon, Hillsburg, Ont.

### LINCOLNS G. NICHOLSON of Horkstow, Lincolnshire, England

has for sale Pedigree Lincoln Long-Wool Rams and Ewes from his world-famous flock of ALL DUDDING-BRED SHEEP. By winning the CHAMPION and "ALL" prizes in the two-shear and yearling ram classes at the Royal Show of England, 1915, all previous records were broken. Coates Shorthorns and Lincoln Red Shorthorns also for sale.

STATION—BARNETBY

### 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

### FARNHAM OXFORD DOWNS

Ewes and yearling rams all sold. We have still a number of strong ram lambs to offer. Also a few Hampshire lambs, rams. Henry Arkell & Son, (Phone 355, R. 2.) Guelph R. R. 2, Ontario.

### "The Maples" Stock Farm—R. S. Robson & Son, Props., Denfield, Ont.

Present offering—100 home-bred Lincoln ewes, ages 1 to 4 years (registered); 20 imp. yearling ewes, all bred to the best of 20 rams we imported this season—an extra-good lot of the heavy-shearing kind. In Shorthorns we have for sale cows and helpers of such strains as Claretta, Clippers, Village Girls, Missets and Miss Ramsdens.

**Lakeview Yorkshires** If you want a brood sow or a stock boar of the greatest strain of the breed, (Cinderella), bred from prizewinners for generations back, write me. Young sows bred and boars ready for service.  
**JOHN DUCK, PORT CREDIT, ONTARIO**

### Yorkshires and Oxfords

Choice young pigs, both sexes. A number of good ram lambs. We guarantee satisfaction.  
**B. ARMSTRONG & SON, Codrington, Ont.**

**Polands, Durocs and Berkshires**  
Young stock at all times, both sexes and all ages. Can also supply anything in Dorsets or Southdowns. Everything priced to sell.  
**Cecil Stobbe, 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 skin, to offer at reasonable prices. Guaranteed satisfaction.  
**Joseph Featherston & Son, Streetsville, Ont.**

## Get the Real Joy of Shooting

"—good ammunition — that's one way. Get genuine sport out of your trip by using ammunition you know is right.

### Dominion Ammunition

doubles your pleasure and your chances of a good bag."

Dominion, the only Made in Canada Ammunition, is backed by the big "D" trade-mark that stands for dependability in all its phases.

**Dominion Cartridge Co., Limited**  
Montreal

### Questions and Answers. Miscellaneous.

#### Weeds.

How far below the surface is it necessary to cut yellow dock to kill them?  
2. Are the following biennial plants: yellow dock, golden rod and buckhorn?  
3. What is the standard weight of a bushel of sugar beets for feeding?  
H. V.

Ans.—1. Cutting below the crown in dry weather and placing a handful of salt on the crown will destroy the roots.

2. Yellow dock and golden rod are perennials, and buckhorn may be either perennial or biennial.

3. There are 50 pounds in a bushel of sugar beets.

#### Trapping and Hunting.

Have I a right to trap on any person's place when the owner says that I can? When does the trapping season open for skunk, muskrat, woodcock, weasel, and lynx?  
C. C.

Ans.—Section 9, sub-section 2, of the Game and Fishery laws states that no person shall hunt or trap fur-bearing animals except under the authority of a license, but this shall not apply to farmers or farmers' sons trapping on their own lands." The muskrat season for territory lying South of the French and Mattawa Rivers is between the first of March and 21st of April. The season for woodcock is from the 15th day of October to the 15th day of November, both days inclusive. We cannot find in the Game and Fishery laws where it gives any closed season for skunks, weasels or lynx.

#### Dividing Profits.

A and B amalgamate their farms and divide the profits after paying for hired help. One farm is worth about three times as much as the other. What would be the fairest way to divide the profits?  
B. P.

Ans.—Not knowing the system of cropping or any details about the work, it is difficult for us to give any basis of division. If one farm actually produces three times as much as the other, it would appear on the surface that the owner of that farm is entitled to what his farm produces, or, in other words, three-quarters of what is produced on the two places. However, the matter of labor would have to be considered as there would be a little more expense in handling the larger crop than with the smaller one. It is pretty hard to divide the proceeds satisfactorily when there is such unevenness in quality of land. On the other hand, while the one farm may be worth three times as much as the other for certain crops, the poorer farm might furnish as good pasture or hay as the better farm. Consequently, without knowing more particulars about the places we cannot give a definite answer.

#### Digesting Different Feeds.

In different publications I have read conflicting information relative to the time it takes a horse to digest roughage and grain. Some claim that hay and straw should be fed before grain as they pass out of the stomach more quickly than grain, while others state that oats digest more quickly than hay. How long does it take to digest such feeds as whole oats, chopped oats, bran, middlings, oil cake, hay, straw, mangels, silage, etc.  
R. J. E.

Ans.—It is generally understood that concentrates are more quickly digested than roughage. We cannot give the exact time that it takes to digest the feeds mentioned, but material like oil cake is much more quickly absorbed in the system than coarser feeds. Mangels being a succulent feed, are more quickly broken down and digested than is hay. The concentrates mentioned, owing to their nature, would not be as hard to digest as the rough feeds. One reason given why it is advisable to feed hay or some roughage before grain is that if the grain were fed first the rough feed would have a tendency to force the grain through the digestive tracts before the process of digestion was completed. This is because of the comparative smallness of the horse's stomach. Grain contains more energy than roughage and it is necessary to feed so that the animal will get the most out of the grain.

## Yorkshires

Young sucking pigs, both sexes; also young sows.

ADDRESS  
**WELDWOOD FARM**  
Farmer's Advocate  
LONDON, ONTARIO

## Pedigreed TAMWORTHS

Several sows 2 years old, in pigs; also younger stock. Write:

**HEROLDS FARMS,**  
QUEENSVILLE ONTARIO

**Morrison Tamworths and Shorthorns**—Bred from the prizewinning herds of England. Tamworths, both sexes; hogs from 2 to 12 months. Shorthorn bulls from 5 to 10 months old, reds and roans—dandies.

**CHAS. CURRIE, Morrison, Ont.**

When writing please mention this paper.

## TAMWORTHS

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.**

## 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.  
**Burford, Ontario**  
**J. E. Brethour & Nephews,**

## 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)**

## 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

## SPRINGBANK CHESTER WHITES

Young sows bred and more ready to breed. Young pigs, pairs not akin. A number of them are sired by Carly King—9997—, who has been a winner at Toronto and London the last several years.  
**Wm. Stevenson & Son, Science Hill, Ont.**

## DUROC JERSEYS.

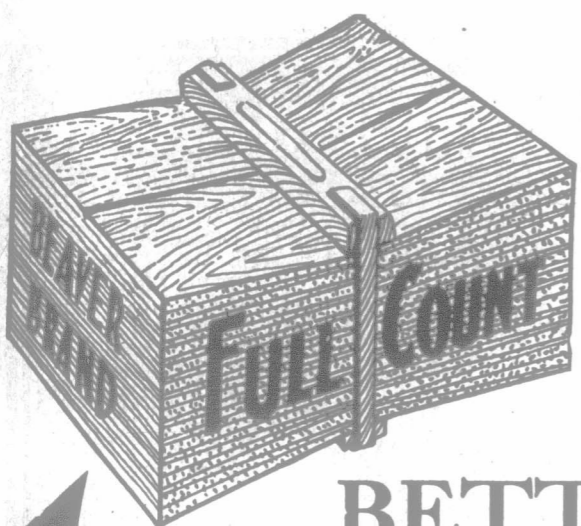
Our herd won all champion prizes at Toronto and London, 1916 and 1917. Pairs not akin. Young stock all ages for sale. Visitors welcome. For further particulars write:  
**Culbert Malott, No. 3, Wheatley, Ont.**

## BERKSHIRES

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.**



# BETTER BARN

## make better farms

You can't put everything in the bank.  
 Your income is in your crops—your capital is in your stock and machinery.  
 Why not give them a shelter that's storm and weather proof.  
 If you are planning to build or fix a barn, specify the best roofing. Specify Beaver Brand White Cedar Shingles and you will have a roof that will last your day and longer.  
 Get the kind that defy the storm, that stay on the job when the tornado has gone.

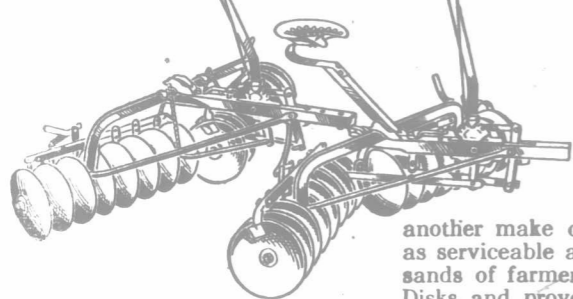
# BEAVER BRAND WHITE CEDAR SHINGLES

*The Boston Transcript*, August, 1916, says:  
 The wooden shingle again demonstrated its great superiority over other forms of roof covering in the recent heavy rain and windstorms in the southeastern cities. In the vicinity of Birmingham and through the east and south parts of the State the rainfall approached twelve inches in sixty hours, soaking all kinds of composition roofs, so that the wind rolled them up. The wooden shingles were not loosened by the wind, as were those of other types. Much of the property damage was caused by water destroying the contents of buildings, and in most cases the water entered because of defective roofing.

## THE SHINGLE ROOF THAT'S STORM PROOF

Bathurst Lumber Company  
BATHURST, N. B. Limited

### Sizes for Horses or Tractors



Use the Bissell Double Disk Harrows. They have great capacity for cultivating, and have made a record for working the soil better than other Disks—in fact, you won't be able to find another make of Disk Harrow nearly as serviceable as the Bissell. Thousands of farmers have tested Bissell Disks and proved them to have the

"knack" for doing the best work. They are simple in design, durable and Built for Business. Write Dept. w for Booklet. Man'fd exclusively by—  
**T. E. BISSELL COMPANY, Ltd., Elora, Ontario**

When stubble land is too hard to plow, use a Bissell Disk. It will make plowing easy after disking—it will clean the ground and will increase the next crop.

### Gossip.

#### Ayrshires and Yorkshires at Meadowvale.

Readers desiring to purchase a few high-class pure-bred Ayrshire females, or a young bull of sterling quality and breeding should consult the advertisement of Jas. B. Ross of Meadowvale, Ont., appearing elsewhere in these columns. The senior and chief sire used in Mr. Ross' herd is the noted young bull, Snow King, first-prize two-year-old bull this year at the Canadian National. He is one of the strongest young bulls individually, seen out this year and his breeding is also of the best. Through his dam he traces to such noted Ayrshire sires as Lessnessock King of Beauty, Dainty Lad of Elm Shade, etc., while on the sire's side he is a grandson of Garclaugh Prince Fortune, which is closely related to the world's champion, Garclaugh May Mischief. Much of this young stock that will be coming from now on in Mr. Ross' herd will be by this sire and his own high-testing dams, and these must be seen to be best appreciated.

In Yorkshire pigs there is always a nice selection in Mr. Ross' pens. They are of the improved type, mostly got by Featherston-bred boars, and just at present there is a varied choice in young boars nearing serviceable age, as well as a few young sows already bred and others younger. Let him know your wants. Address J. B. Ross, Meadowvale, Ont.

#### Shorthorns at Pleasant Valley.

One year ago, as in many years during the past decade, our representative found a great array of breeding matrons at Pleasant-Valley Farm, the home of the noted Shorthorn herd that bears that name. In this last year, however, there has been advancement. In fact, there is perhaps no Shorthorn herd in the whole Dominion whose progress during the past twelve months has been more rapid. Besides those great, mature, breeding cows that have produced so many champion winners for Amos & Sons in the past, there has been added, some of the best imported and Canadian-bred females that have passed through the sales this year. When seen recently by the writer they, with the older members of the herd, made up as strong an aggregate of breeding females as one could hope to find in any herd of equal size on this side of the Atlantic. Eight of the imported females referred to were purchased at the great Mitchell sale, and four of these had calves at foot to British service. Many "Advocate" readers will remember them as one of the strongest purchases made by any one Canadian firm in years. The purchase by Messrs. Amos & Sons of the already famous young imported sire, Newton Grand Champion at the same sale will also be remembered. He is a straight bred "Clara" got by the noted Scottish sire, Grand Champion, and his dam, Village Clara is the dam of a number of several of Scotland's highest-priced bulls. Newton Grand Champion was conceded to be one of the best yearlings that left the old country in 1914 and also by many to be one of the best "buys" of the Mitchell dispersion. He should have a wonderful future in the Pleasant Valley herd. In referring to families it is almost useless to mention their individuality. All the more fashionable ones figured in the herd a year ago and the selections made since then have brought in Mysies, Marr Mauds, Broadhooks, etc. Of the 1917 winnings at both Toronto and London, full reports have appeared in the show reviews given in these columns during September. It will be noticed, however, that most of the entries were in the younger classes only, nearly everything of which was bred on the farm and with very few exceptions all were found well up in the money. Several of their very strongest things, were the young bulls shown, a number of which are still in the stables and make up one of the strongest offerings we know of in Ontario to-day. If you are at present interested in making a choice selection of breeding Shorthorns it would be well worth while either to correspond with Messrs. Amos & Sons or make a personal visit to the farm. Their advertisement may be found elsewhere in this issue.

## What a Price to Pay for the Lack of Safe Roofing

**ANOTHER BARN BURNED**  
 SIXTH LOSS IN VICINITY FROM LIGHTNING OR BURNING CAUSE, IN NEW BRUNSWICK.  
 Special Report to the Globe. Since Aug. 15—The home of each of the six barns destroyed in the past week, was destroyed by lightning or fire. The cause of the loss was the same. The barns were all destroyed. The owners were insured. The loss was heavy. The cause was the same. The barns were all destroyed. The owners were insured. The loss was heavy. The cause was the same.

## PEDLAR'S "GEORGE" SHINGLES

EVER think how often you too have barely escaped a similar disaster—or how soon destructive flames may at any moment envelop all you possess and hold dear?  
 Real protection insists that you roof your barns and homes with inflammable material—Pedlar's "GEORGE" Shingles. Thus you rob lightning and fire of their power to destroy, and, what's more, obtain the best rate of insurance.  
 Pedlar Shingles are also proof against wind, rain, rust and rot. Easy to put on. Keep your barn sound for generations. Write for the "Right Roof" Booklet!



## GUNS TRAPS ANIMAL BAIT

and all Trappers Supplies  
**John Hallam Limited**  
 772 Hallam Building, Toronto.

## "TITE WAD"

"STICKS LIKE A BULL-DOG"  
 ORIGINAL RUBBER PUTTY  
 Indispensable to Farmers  
 Tite wad will vulcanise Auto Tires, Inner Tubes, Rubber Boots and Hot Water Bottles. No tools necessary. Guaranteed to satisfy. Order a 50c tin by mail to-day, postpaid. Dept. D. E. Schofield, 43 Victoria Street Toronto.

## RAW FURS

It will be to your interest to get your name on my mailing list for my PRICE LISTS. Outlook good. All kinds in good demand. Send in your name NOW. List and tags free.  
**C. H. ROGERS**  
 Desk 10  
 Walkerton, Ontario  
 PATENTS Trade Marks and Designs procured in all countries. Special attention given to Patent Litigation. Pamphlet sent free on application.  
**RIDOUT & MAYBEE** Crown Life Bldg TORONTO, ONT.

# Ask Your District Representative for Information—



## always ready



## Your District Representative Wants to Work With You

That is his mission and his desire. A graduate of the Ontario Agricultural College, he is familiar with the science, and having been a practical farmer, he understands the practice of farming. He is the connecting link between the farm and the various branches and institutions of the Ontario Department of Agriculture. He is the Practical hired man of the community and he may save you many dollars. It costs nothing to give him a trial.

### Forty-seven District Representatives in the Province of Ontario

freely offer their services to every farmer in their respective counties along the various lines listed below. **THEY ARE ALWAYS READY.** Write each at his office, call upon him personally, or telephone him. He has an automobile and can reach you quickly.

### Bringing Dollars to Your Farm

**RIGHT IN YOUR FIELDS** the Representative will work. He will survey your lands for drains; give information and practical demonstrations regarding: the control of blight and scab of potatoes, the formalin treatment for grain smuts, the control by spraying, of mustard, the identification and control of insects and fungous diseases affecting field crops and orchards, the practical value of commercial fertilizers, the most approved methods of cultivating, pruning, spraying and general care of orchards. **HE WILL, in fact, SECURE FOR YOU THE INFORMATION YOU DESIRE CONCERNING ANY METHOD, QUESTION OR PROBLEM RELATING TO FARMING IF IT IS TO BE OBTAINED—free of charge.**

**ORGANIZING THE COUNTY** is part of his work. If you believe a farmers' club, fruit growers' association, ploughing match, co-operative egg circle or co-operative association for the purpose of buying or selling any kind of goods or produce, breeders' club, local fall fair, standing field crop competition, Board of Agriculture or any other organized body is required in your community, write your District Representative about it. He will assist you to put the organization upon a firm footing.

**HAS THE LABOR SHORTAGE** prevented you from attending an Agricultural College

Short Course? Then see your Representative. He will bring the College to your community. He will organize a short course in stock judging or seed judging and in scientific, yet practical, agricultural science or domestic science which all may attend. **YOU MAY RECEIVE THE BENEFITS OF A COLLEGE SHORT COURSE, THEREAT, WITHOUT LEAVING YOUR TOWNSHIP.**

**IS SPECIAL INFORMATION** desired in your community upon any particular phase of live-stock raising, fruit growing or farming? If so, your Representative will arrange for public lectures to be given in your community on any of these subjects. Beekeeping, poultry raising, seed selection, special crops, fertilizers—any subject of importance to the community, in fact, will be discussed. Write your District Representative about it.

**ARE HIRED MEN SCARCE?** Your District Representative can help you there, too. He is an agent of the Ontario Labor Bureau and can, perhaps, put you in touch with the very man you are looking for.

### Young Farmers To-day—Leaders To-morrow

**RURAL DEPOPULATION** BEGINS in the wrong attitude of mind in the child. The rural school fairs conducted by the District Representatives are organized to correct such an attitude. They give the child a new point of interest and a greater enthusiasm for the farm and farm life. Incidentally they serve to introduce the best varieties of grain and most profitable strains of poultry on the farm and in the community. The school fair day has also become the big picnic day of the township. Write your Representative for full particulars.

**YOUTH IS AMBITIOUS**—the young man and the young woman naturally wishes to learn, to discover new facts, and to practice them in a way that will command attention and respect. Many, unfortunately, have not the time to attend the O. A. College or the Macdonald Institute at Guelph. **THE REPRESENTATIVE GIVES THESE THEIR CHANCE.** Courses in agricultural science of from four to six weeks are organized every year in each county where a representative is stationed, which all young men in the district

are invited to attend, free of charge. Similar courses in domestic science are being provided for young women. Every young person in these 47 counties and districts should make full enquiries NOW regarding these valuable courses to be held this winter.

**YOUNG FARMERS** will soon be our agricultural leaders—for soon they'll be old farmers. To enable them to help themselves most efficiently an organization for them has been provided. Each year the students of the short courses—girls and boys—are organized into definite societies to help themselves socially, educationally and financially. Watch this movement! Our Ontario Junior Farmers Improvement Association is exerting an ever-increasing influence in the province.

**BUT APPLICATION OF KNOWLEDGE** is the true test of educational efficiency, urge some. And it is by its application that the knowledge gained at short courses stands the test. Every year these young men take part in profit competitions in which the principles taught at the courses are tried out in practice. Groups in each county compete for the largest profit in growing an acre of various field crops, in feeding hogs, baby beef, dairy cattle and poultry. Home garden contests are also organized, while a big inter-county live-stock judging competition for young farmers is a notable feature. Ask your representative about it.

### These are Some of the Ways, Not All

in which your district representative desires to co-operative with you. **CALL AT HIS OFFICE.** It is conveniently located, well-furnished and equipped and has an excellent reading room where you may read the latest bulletins, authoritative text books and the best farm journals. You may hold agricultural organization meetings or others of similar nature upon request and free of charge. Demonstration material there may interest you. Perhaps you may secure a tractor at cost to assist you in your field operations. **YOUR VISIT WILL BE WELCOMED AND IT WILL PAY YOU.** When writing or visiting kindly mention this advertisement and give full information regarding the exact nature of your case.



## Ontario Department of Agriculture

Parliament Buildings  
TORONTO

Sir Wm. H. Hearst  
Minister of Agriculture

Dr. G. C. Creelman  
Commissioner of Agriculture



# — Call at His Office and get acquainted