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LV.

LONDON, ONTARIO, JULY 8, 1920.

No. 1450





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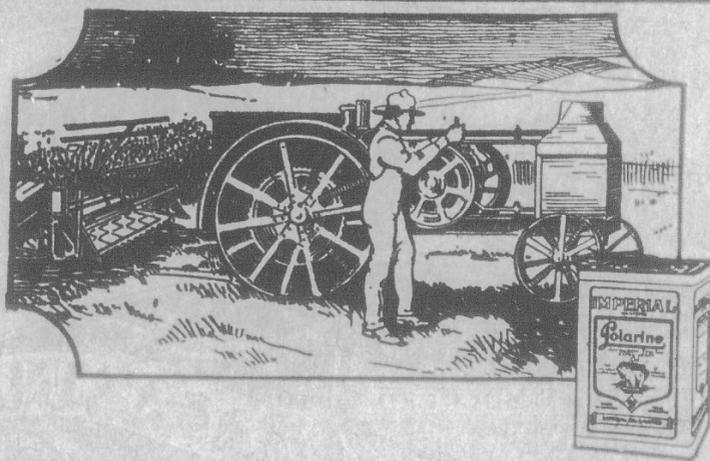
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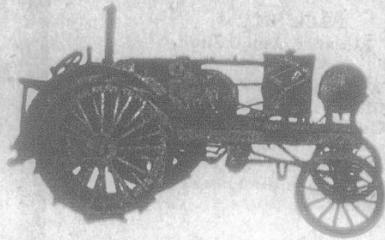
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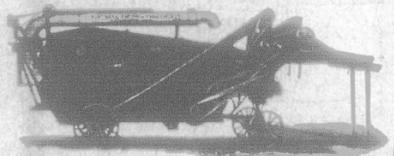
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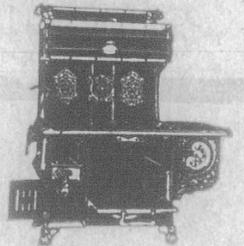
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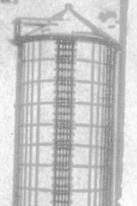
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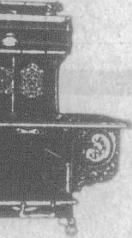
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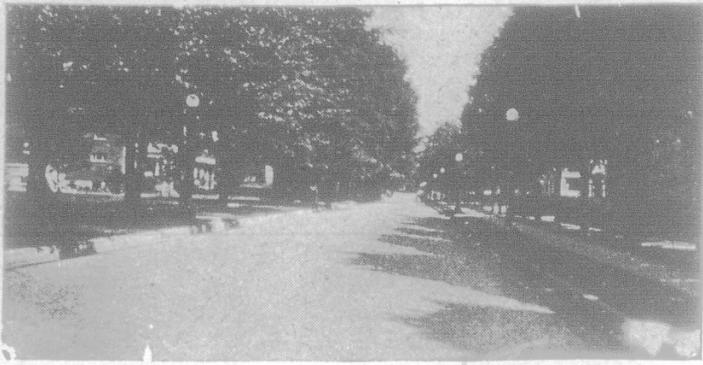


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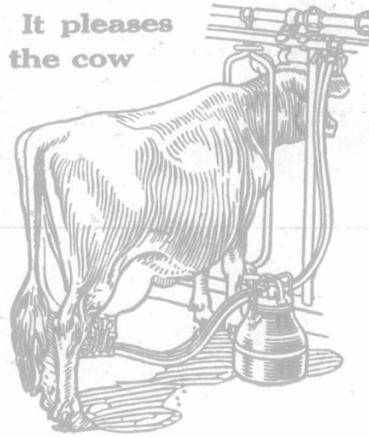
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# The Farmer's Advocate and Home Magazine

PERSEVERE  
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1866

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LV.

LONDON, ONTARIO, JULY 8, 1920.

1450

## EDITORIAL.

Market the cockerels that are to be sold as broilers when they are from eight to twelve weeks old.

"Make hay while the sun shines" is a good old saying that will bear repetition at this season of the year.

The farmer, who has a field of sweet clover to turn his herd into, is now enjoying the benefit of a good pasture crop.

If you want to know what an artist means when he speaks of a "pastoral" scene, take a look at a herd of good cows in clover up to their knees.

Do not raise chicks of different ages together if at all possible to avoid it. The older ones will crowd the later ones and retard their development.

Reports from all quarters indicate that insect pests are very troublesome this year. Their presence every year is a reminder that man must live by the sweat of his brow.

June, the month of heaviest milk production, has now come and gone. Those who have provided against the short pastures of July and August will soon reap the benefits of their foresight.

Supplementary estimates amounting to \$62,000,000 seem over much for a country of small population and a \$2,000,000,000 debt to pay. It is no wonder that Sir Henry Drayton found it necessary to devise new methods of taxation.

How little is sometimes needed to change one's opinion of another and to hasten decision. Witness James Murdock's opinion of Judge Robson, and the latter's decision to hand in his resignation as Chairman of the Board of Commerce.

James Murdock, who recently resigned from the Board of Commerce, laid some serious charges at the door of the Cabinet before he left. No doubt there will be a parliamentary committee of enquiry appointed to exonerate the ministers. 'Twas ever so.

The Dominion Government has at last yielded to the many requests for larger sessional indemnities, and while they were at it they adopted no half measures. One might logically expect that larger indemnities would mean more work. Also that larger salaries for Cabinet Ministers would mean more progressive government because if the salaries are bigger the Government should grow with them.

It is proposed by the Hydro Commission to take over the following electric railways at the terms stated, according to a statement reported last week.

Toronto Eastern Railway—Price \$706,000, payable by Hydro Power Commission 4½ per cent. 50-year bonds guaranteed by the Province.

Toronto Suburban Railway—This to be taken over by the Hydro Power Commission, which will assume the bonds, of which there are \$2,628,000 of outstanding 4½ per cent. bonds in 1961.

The Niagara, St. Catharines & Toronto Railway—Prices for this railway to be \$3,544,374.10. On this road there are \$1,098,000 5 per cent. bonds due 1929. The Commission will assume these and will give bonds guaranteed by the Province, 4½ per cent. 50-year bonds, for the difference between \$1,098,000 and the purchase price. It is now necessary for the Provincial Government to make up their minds about Hydro-radial development in Ontario.

## Supplying Milk for City Consumption.

Thousands of milk producers in Canada are engaged in supplying the milk consumed in towns and cities. For various reasons we are perhaps inclined to underrate this branch of the dairying industry and its commercial value to the product. Not only is a considerable percentage of the milk produced in the country sold for consumption in urban centres, but because of its value in the human diet and its susceptibility to the germs of many diseases, extra care must be taken to see that it reaches the consumer in a clean, pure, healthy state. This means that good care must begin in the stable where it is produced, and city health authorities now regularly insist on thoroughly sanitary methods of production. Inspectors visit each farm contributing to the city supply, and producers are required to install sufficient equipment and to use such care in handling the milk as will preserve its fresh, health-giving qualities and maintain its efficiency as the most necessary food of any people.

The business of distributing milk to the consumer is taken care of by a special class of dairymen called distributors, who receive it from the milk producer, pasteurize it, bottle it and deliver it at the consumer's door. Necessarily, on account of its perishability, milk for human consumption must be produced within a reasonable distance of its final market, and to insure a sufficient supply at all times, consumers must pay somewhat higher prices than are to be secured from other markets. Thus there has arisen a special class of milk producer who can produce milk for the city trade under conditions which would be unprofitable for the average man. This type of man often keeps many more cows per 100-acre farm than is the case with mixed or live stock farms. Such farms are purely dairy farms operated primarily for milk production, and as a result cows are bred merely so that they will freshen, and their value as breeding animals is not considered. There is no room for anything but producing stock, and even at that, much, if not most, of the feed is purchased rather than grown on the farm. But not all of the milk required daily for large centres can be produced on land adjacent to the city so that a considerable portion of it must still be drawn from other producing areas and shipped in by rail.

It is thus seen that city milk is largely produced under unusual circumstances such as tend to place this branch of dairying more directly upon a straight dollars and cents basis. Then, also, the fact that the milk thus produced is sold to the consumer through the medium of the distributor, whose expenses are high and whose plant is costly, tends to create difficulties as to prices which have been known to result in deadlocks, and even a serious shortage of supply. Naturally, therefore, city milk producers have been among the first to organize associations for the purpose of collective bargaining. At first only those producers supplying the larger centres found this step necessary. Smaller centres followed suit, and then it was found necessary to unite these different organizations so as to give them common aims and to give justice to all city milk producers. Ultimately it was found advisable to include producers of milk for other markets as well, since it soon appeared that all branches of the dairy industry are interdependent upon each other, and that although the city milk trade offered a special outlet, it was still influenced by other dairy markets, often to a considerable extent. Such has, in fact, been the history of the Ontario Milk and Cream Producers' Association, to which reference is made in an article in this issue. This association is rapidly widening its sphere of influence, and is expanding steadily and wisely. Already it has accomplished much for the dairymen. Much more remains to be accomplished. Generally speaking, the confidence of the distributor has been gained and a long way travelled toward the ultimate realization of

fair prices for milk. Before this can actually happen, however, individual milk producers and local associations must develop greater confidence in the central association and give it more continuous support. Then only will it be possible to bring about fair prices, and then only will it be possible to widen the market for milk by increasing consumption. There is ample room for this work, and there is, from the standpoint of health, actual need of it. The city milk supply is a very vital factor in the life of the people, and those who contribute toward it have a serious duty to perform, as well as a golden opportunity to progress through organization.

## The Board of Commerce.

The Board of Commerce has had a rather turbulent and disquieting career. On his own authority it was conceived in the fertile and imaginative brain of ex-commissioner W. F. O'Connor some three years ago, but it was not until he used it to capture the fancy of the special parliamentary committee that investigated the cost of living last year that sufficient impetus was secured to give it birth. Mr. O'Connor supplied the committee freely with information about his long submerged idea, and they took to it like a duck to water. Most of them got quite excited about it and professed to believe that they had solved the most serious problem of the day. They, no doubt, felt that the people were pressing them very severely for some tangible evidence of an interest in their welfare, and the recommendation that another commission be appointed appeared to be recognized as a very fitting result of the committee's investigations. The Board was appointed and enabling legislation passed, so that as a result of Mr. O'Connor's persistency there at last seemed to have been established a court of commerce with very wide powers. Mr. O'Connor then began to talk, and the more he talked the better the Board became known. Shortly it became too well known and prudence gradually submerged his enthusiasm until presumably the intolerable silence caused him to resign. In the meantime Judge Robson, Chairman of the Board, had come and gone. He was, we believe, fairly regarded by the public at large. It appeared that the Judge might have some influence in soothing the nerves of the public body, and "Vox populi" was quieted under promise of treatment. Treatment progressed slowly; in fact, it did not progress at all. The Board's medicines were diluted by decisions of rival courts, until even the chief medical officer withdrew from the case and said the treatment was too radical to succeed. With two physicians gone only the family doctor was left. Commissioner James Murdock was the appointee of Labor, the patient itself. Finally he grew ashamed of taking a fee when he could do no good, and now he is no more than an echo of what might have been. Before he went he accused the hospital authorities and the former chief medical officer of negligence, and in retaliation spread gunpowder and sulphur about the place, but the intended victims merely shrugged their shoulders and incased themselves in coats of steel and asbestos. Death only could move them to repentance in his opinion, save one only whose impaired health had removed him temporarily from the scene of action. Meanwhile the patient lived on. Doubtless he will recover in time under the stimulus of industry and thrift, but one might prophesy that the authorities who awakened his hopes and took his money without bringing about any improvement will forever have lost his respect.

One gets tired ultimately of too much sensationalism. No doubt it is interesting, not to say exhilarating for politicians to play both ends against the middle, but when it happens that the people are both ends and the middle too, the game is likely to reach an abrupt termination. The public is fickle-minded and gullible, sure enough, but being stung does help one's memory and develop caution. The Board of Commerce has

## The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

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JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"  
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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers of any publication in Canada.
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proved a fizzle, and even Commissioner Murdock, its last supporter, left only his smoke when once he started for the sanctity of the Brotherhood of Railway Trainmen of America. One could fancy that the incident of this erstwhile social panacea will long stand as symbolical of things undesired. Party politicians will gloat over it for years to come, whereas it would be better to let the dead past bury its dead.

### Nature's Diary.

BY A. BROOKER KLUGH, M. A.

A very common and interesting, yet little-known, animal of our lakes and streams is the Fresh-water Hydra. Particular interest attaches to this little animal, because it is the only common fresh-water representative of the Coelenterates, a group of animals to which the jelly-fish, corals, and sea-anemones belong, and which are so abundant in the ocean.

The place to look for Hydra is on the leaves and stems of pondweeds, water milfoil, and other submerged aquatic plants, in clear, comparatively quiet water. In the expanded condition these little animals look like a thread, attached at one end and unravelled at the other. On close examination it will be seen that the "thread" is the body and the "ravellings" are the tentacles, which are set in a ring about the mouth. When fully expanded a large individual may be 15 millimetres (a millimetre is 1-25 inch) long, tentacles and all. The color will depend upon the species, as we have three species of Hydra in Canada, which may be recognized as follows:

Gray Hydra, *Hydra grisea*. Gray, yellow or pale brown in color, body not definitely stalked.

Green Hydra, *H. viridis*. Green in color.

Brown Hydra, *H. fusca*. Brown or reddish in color. Body definitely stalked.

Figure 1 shows a specimen of the Gray Hydra fully expanded, with a bud, in a partially contracted condition, at the right. When completely contracted Hydra is only about 3 millimeters long, and the tentacles are mere rounded knobs.

As may be judged from its external appearance, the whole structure of Hydra differs radically from that of the animals with which the student of land and fresh-water life is most familiar. There are no true muscles or nerves present, but the body is composed largely of neuro-muscular tissue, that is, of tissue which partakes of the character of nerve and muscle, being able to receive stimuli and conduct impulses (like nervous tissue) and to contract (like muscular tissue). The body is essentially a two-walled sac, the central cavity, called the digestive cavity, having but a single opening, which functions both in taking in food and in ejecting waste. Fig. 2, which shows a longitudinal section of

Hydra in a partially contracted condition, gives a good idea of the structure of the body, and shows that the cavity extends out into the tentacles and also into the bud at the left.

The food of Hydra consists of small aquatic animals, such as the little crustacea known as Copepods and water-fleas, which are captured by means of the tentacles. The tentacles have their surfaces thickly beset with minute sacs called nematocysts (thread-sacs) and these are the offensive and defensive organs of Hydra. The structure of a nematocyst can be seen from Fig. 3, which shows two of these structures highly magnified. It will be seen that a nematocyst consists of a sac containing an introverted coiled thread, as shown at A. To illustrate what is meant by introverted, suppose that one finger of a glove is pushed down into the glove, so that the finger is inside-out within the glove: this will represent the condition of the thread within the sac of a nematocyst. On the outside of the nematocyst is a little pointed hair called the cindocil or trigger, which is sensitive. When the trigger-hair is touched the walls about the sac contract violently, causing the coiled thread to shoot out and straighten. When the thread is thus shot out and strikes an object the sharp tip penetrates it and then breaks off, while the pressure on the walls of the sac forces the acid poison, which the sac contains, out through the thread and into the wound. The poison thus injected into a small animal, which is struck simultaneously by many of these dart-like threads, paralyzes it. The discharged condition of a nematocyst is shown at B. When the prey is thus paralyzed the tentacle contracts and folds inwards towards the mouth, and the prey is gradually taken into

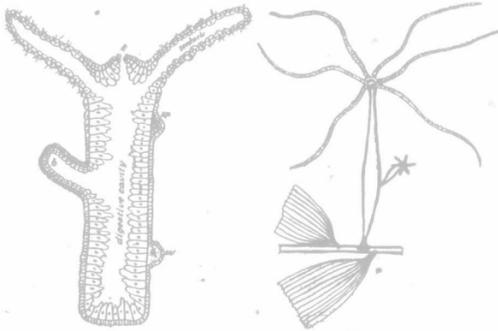


Fig. 2—Longitudinal section of Hydra, much enlarged; b, bud; m, mouth; ov, ovary; sp, spermary.

the digestive cavity. The walls of this cavity are lined with cells which secrete a digestive juice, and after the nutritive portions of the prey have been digested the remainder is expelled throughout the mouth.

Hydra reproduces both asexually and sexually, asexually by buds which develop from the sides of the body, remain attached until they are nearly half the size of the full-grown Hydra, and then drop off and attached themselves to some leaf or stem, and sexually by eggs, produced in the ovaries (shown at ov, in Fig. 2 which are fertilized by the sperms produced in the spermary (shown at sp, in Fig. 2). The buds are produced quite rapidly throughout the summer, while the

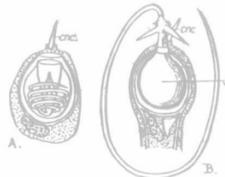


Fig. 3—Nematocysts of Hydra (highly magnified). A, undischarged; B, discharged; S, sac; enc, cindocil.

sexual organs are mainly developed towards autumn. The egg undergoes its early stages of development in the ovary, then forms a firm covering, and passes the winter in this condition. In the spring the covering ruptures the embryo, continues its development and grows into a Hydra.

While Hydra as a rule remains in one place, attached to the substratum by its pedal disc, it can also move about. Locomotion is accomplished in three ways—by gliding along the pedal disc, by bending over and grasping the substratum with the tentacles, and the drawing the pedal disc up to the tentacles, and thirdly by a series of slow somersaults.

### Impressions of the Prairies.

BY SANDY FRASER.

I think I was up somewhere about Fort William when I sent ye that last letter tellin' o' my hardships an' givin' ye my impressions o' the country I was passin' through.

Well, it gets to be a wee bit mair civilized lookin' as one gets nearer Winnipeg an', first thing ye ken ye've left the swamps an' the rocks behind an' ye're into the prairies. Man, but it was great to see level country an' cleared fields once mair. I began to understand how the C. P. R. Co. had the courage to come over all that wild country behind us. They had their eyes on the plains o' Manitoba an' their mind on the future, an' it's na wonder they persevered in their plans. It must hae looked to them, at that time, like a farmer's Paradise. No trees to cut doon, no stanes to clear awa, naething but tae hitch yer horses tae the plow an' go to it. Such things as frost an' dry weather an' weeds an' high winds

an' cauld winters an' prairie fires weren't taken very seriously by the pioneers o' that country ony mair than were the hardships an' difficulties that their forefathers had to face when they left their hames in the auld land across the water.

But ye'll never get an idea o' the size o' this western country until ye've gone through it. For twa days an' twa nights I travelled across land that was as "level as the floor," as the saying goes, and how many miles o' each side o' the railway that country stretched back I had no way o' telling. There's na use talkin' about it. Ye have to see it to get the right feelin' about it.

But I'll say this; if that part of Canada that lies between Ontario an' British Columbia was as weel farmed as it might be, I havena' the least doot but that it wad raise enough food to support every human being on the face o' this earth. That is, provided the weather conditions were favorable, of course.

There's the thing that has to be reckoned with by the chap that goes tae farmin' the West. It's a grand country—if it wasn't for this, and it wasn't for that. Hail is anither thing that comes their way, oot there. I forgot tae mention it a while back, when I was speaking about the different drawbacks. Hail an' an occasional cyclone. Of course I ken it's the same in every business. It's the way Nature has o' developin' backbone in her children. She always takes care not to mak' it too easy for them.

Just the same it isn't hard for a chap that's passin' through the country, sittin' on a seat in a railway coach, to find quite a few things tae criticize in the methods an' manners o' the prairie farmer. The first shock a "doon-Easterner" gets is when he sees the system o' housing farm machinery that is practiced on the plains. Ye'd just think that every farmer was gettin' ready to have an auction sale o' his farm implements. They're all lined up there near the hoose or the barn, waitin' till the time comes when they will be needed. A grain separator an' a tractor, two or three binders, a couple o' mowers an' an hay-rake, seeders an' harrows wi'oot end, they're all there, gettin' the benefit o' the rain or the sunshine, as the case may be. To be mair exact, it's the manufacturers o' these machines that are gettin' the benefit, of course.

It's a mistake this habit o' the western farmer. I'm sure o' that. Lumber may be dear an' carpenters' wages high an' all the rest o' it but I canna help thinkin' that a shed for the machinery would pay guid interest on the investment in Saskatchewan as weel as we ken it does in Ontario.

While I'm at it I think I'll be criticizin' anither thing I noticed about the ways o' the "man on the land" in the West. If I'm ony judge he's tryin' to handle too many acres o' ground. My eyes were fairly sore lookin' at weeds in those twa days on the plains. The pastures were that full o' them that ye would be wonderin' where the horses an' the coos found the means o' existence. Naething but diligence an' perseverance kept them alive, I'm sure. An' then the wheat-fields. Lots o' them had been "stubbled in", as they call it; that is, the wheat had been sown directly on the stubble without plowing or disking or ony ither formality. An' that was where ye could see the weeds growing in all their perfection. The wheat seemed to be what ye might call a sort o' a by-product. And even on land that had been plowed there was plenty o' weeds growin'. They say there's ony one way to keep them doon in the West an' that is by summer-fallowing. And how can the man with perhaps mair than six hundred acres o' land and little or no hired help, except at harvest-time, do all the summer-fallowing that is necessary?

There's a cure for this condition o' things, but it will tak' time to put it intae effect, na doot. When the farmer on the prairie owns what land he can work the way it should be worked, an' keeps a little live-stock to mak' up for what he will be short on wheat, I'm thinkin' there'll be mair money an' mair satisfaction all round. Mixed farming is the cure for maist o' the evils that befall the man who has been trying wheat-gambling on the prairie as a means o' existence. To my way o' thinkin', onyway. Farm small an' farm better I'd say, if they ever asked me. But your Western man is great on takin' chances an' it's a case o' "make or break" wi' him. Ye'll have to gie him his fling, I guess.

Talkin' about the scarcity o' labor, I saw something in a field near the rail-road track oot there that made me feel kind o' sorry, in a way. It was a five-horse team hitched to a drag-harrow, an' wha dae ye think was drivin' them? Just a wee bit o' a lassie, not mair than six or seven years auld. "If that ain't the limit," says I tae mysel'. "Talk about yer child-labor in the factories. That goes it a guid second, onyway." A piece further on I saw twa six-horse teams at wark wi' ony one man tae handle them. He was drivin' one team and leadin' the ither. What ye might call makin' the maist o' all the man-power available. "That ought tae satisfy even the editor o' "The Farmer's Advocate,"" thinks I to mysel'. But I'd hate to be in that chap's shoes when it came to unharnessing his bunch o' horses at night.

But they sure deserve credit, these farmers, for stayin' on the job the way maist o' them hae done, in spite o' the hardship that has come tae them, especially in the last three years. Lots o' them hae been buying their seed wheat every spring an' paying two dollars an' a quarter a bushel for it, only tae see it blown oot o' the ground or dried up by the hot winds they've been having. It tak's some courage to keep on at that sort o' thing for three or four years in succession. And some faith in the country, as weel.

However, I see that I'm no gaein' to be able to tak' the time to finish tellin' ye about my travels in this letter, so I'll just be sayin' good-bye for the present, hoping tae see ye later.

## THE HORSE.

### Examination of Horses as to Soundness—III.

Having finished with the fore foot, it is good practice to get an assistant to hold the foot up, in order to cause the horse to stand firmly on both hind feet. Look carefully along the floor of the abdomen and pelvis for umbilical or scrotal hernia, abscesses and other abnormalities. Then look carefully on the top line from the withers to the dock for abnormal conditions. Look carefully for symptoms of existing or pre-existing fistulous withers. Lift the tail and look carefully for melanotic on the dock or in the region of the anus (these occur especially in white, grey or cream-colored horses), also look for other abnormalities. Now proceed to examine the hind limb. Examine the stifle joint carefully. In cases where there is partial dislocation of the paletta (the stifle bone) there may not be noticeable defective action at all times, but there will be an abnormal puffiness in front, just below the joint. Look carefully on all surfaces of the limb down to the hock. We have now reached one of the most difficult parts to examine. This point is liable to many peculiarities of conformation, due to what may be called hyper-development of one or more of the bones of the joint, or to the relation one bone bears to another as regards angles, or to a normal looseness or puffiness of the joint, any or all of which are undesirable, and may render the joint predisposed to unsoundness, at the same time do not constitute such. It must be remembered that undesirable conformation is not an unsoundness, even though it may be a predisposing cause. It is not the duty of the examiner to criticize the horse in this respect, if he be examining for probable purchase by another person. In examining with the idea of purchase himself he, of course, will carefully consider such condition. So long as there is no disease of structure the animal must be considered sound, even though his conformation may be undesirable. In other words, "a horse must be considered sound until some part becomes diseased." It is seldom that a colt is congenitally unsound. In order that a man may be able to give a valuable opinion upon the soundness of a hock, he must be familiar with the various normal conformations, and there are cases in which the most expert has trouble in deciding whether or not disease exists. It is subject to many diseased conditions, as bog spavin, thoroughpin, curb, capped hock, thickening of the tissues, either bony or soft, and to bone spavin, either visible or occult. The latter form of bone spavin causes no visible alteration in the joint, but causes incurable lameness. In examining for bog spavin, we must be careful to not condemn a horse that is normally slightly puffy or soft. Thoroughpins are easily detected, hence a man is not likely to make a mistake here, at the same time we must not condemn an animal that has slight enlargements at the seat of the disease. In examining for curb we stand at the side of the horse, and view the posterior border of the joint. Here a mistake is liable to be made, a hyper-development of the cuboid bone gives the joint more or less the appearance of being curbed, but careful manipulation will decide. Where the apparent enlargement is due to development of bone, the condition is congenital, and the enlargement is slightly lower and more to the outside of the limb than where curb exists, and is also harder and unyielding to pressure. Capped hock is easily detected. If slight it can usually be overlooked, except for show purposes, but if well marked it should be considered an unsoundness. Bone spavin is one of the most serious diseases of the hock and, in many cases, it is difficult to determine whether or not it exists when it does not cause lameness. In examining for this disease, the hock must be viewed from all directions; the hocks must be carefully compared (unless they be smooth, hard and angular and do not present any appearance to cause suspicion). There may be a roughness or hyper-development of one of the cuneiform bones, or other bones which may cause a suspicion of the existence of spavin. If a roughness or fullness be present, we must look carefully at the other hock to see if a like condition exists there; if so, we, in most cases, are safe in concluding that it is a normal condition, provided of course the horse is going sound on both legs; but if one joint be smooth and the other rough, or a prominence exists in one and not in the other, our suspicions are necessarily increased. Of course, there are cases in which both joints are diseased, hence we must not in all cases where we observe a similar roughness in each hock, arrive at the conclusion that they are sound. It is good practice to tie up the tail, so that it will not hang over the hocks and interfere with view. Go to the front of the horse, stoop or kneel down and look backwards between the fore legs and observe the conformation of the joint and compare it with its fellow. Then step to one side and view from an angle; then walk

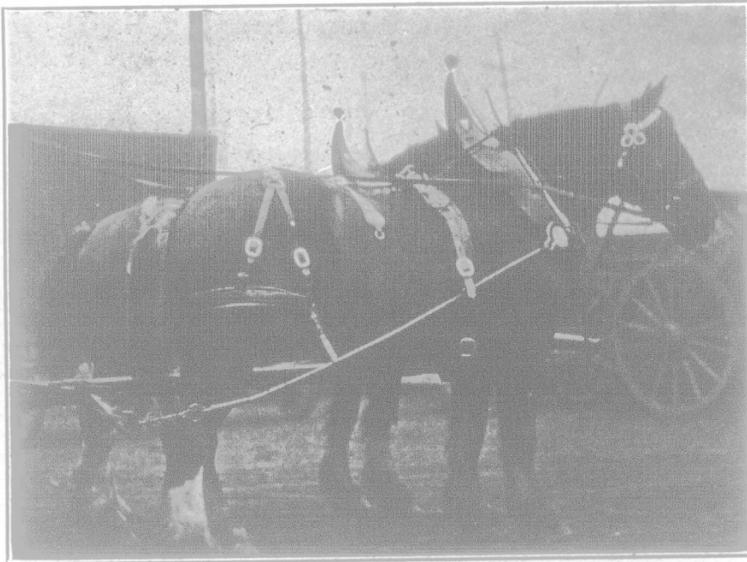
behind and to the side and view from that angle. Then go straight behind him and view. If still suspicious, and it be at a season when the hair is long, it is good practice to get a little water or snow and dampen the hair on both hocks, so that it will lie closely to the skin, then by careful manipulation and observation we will be able to more thoroughly examine and compare. If we are still suspicious, we will wait until we have finished our examination while the horse is standing, then return to the hock of which we are suspicious. Have the attendant lead the horse slowly forward, and look carefully for lameness. To make a more thorough test it is well to lift the foot, flex the hock and keep it firmly flexed for, say half a minute, then allow him to step forward. If spavin in which inflammatory action still exists be present, he will step lame and upon the toe for one or more steps, but a spavin in which inflammation has ceased, may be present and not cause lameness.

Below the hock we look for unsoundness of the same nature as in the fore limb, viz., splint, ringbone, basal enlargements, bourd or enlarged tendons; sidebone, and diseases of the feet. Sidebone is seldom met with in the hind limb, and diseases of the feet not nearly so common as in front. Knuckling or partial dislocation of the fetlock joints is frequently seen, and if well marked must be considered an unsoundness. When examining the feet, either fore or hind, it is necessary to observe whether each of the pair be of the same size and general conformation. If material difference in either size or conformation exists in a pair of feet, we become suspicious of existing or pre-existing acute disease, and we must be very careful in arriving at a conclusion. These differences are much more frequently noticed in the fore than in the hind feet.

WHIP.

### Feed the Colt.

The colt should be kept growing. If it becomes stunted the first year it is difficult to make up for the deficiency in growth occasioned by lack of proper feed the first year. The brood mare which has to take her place in the team is not able to feed the colt so well as the one permitted to run idle during the greater part of the season. The colt soon learns to pick grass, but during July and August the pastures become dry and the fodder not so enticing or appetizing to the youngsters. Coupled with this, the mare's supply of milk falls off as the season advances. It is a good plan to feed the



A Team of Draft Horses.

The kind draymen want for city work. Off horse weighs 1,800.

colt a few rolled oats in a separate box at the time the mare is getting her regular feed. Once he acquires a taste for the oats, there should be no difficulty in getting him to take a regular allowance. A little oil cake and bran may also be fed with the oats. When the mare is in a heated condition it is advisable to allow her to cool off a little before turning the colt in with her.

In driving through the country this spring there are fewer colts than are usually seen. The dullness of the horse market a year or two ago no doubt accounts for this. However, the market has strengthened, especially for good horses. More of the best mares might advisedly be bred. Inferior horses will, no doubt, continue to be more or less of a drug on the market. As with all other products, the public is demanding quality in the animals purchased.

The Wheaton-Palmer sale of dual-purpose Shorthorns in Minn. made an average of \$530 on 50 head. The Canadian stuff in the sale brought the top prices. Golden Wimple, a three-year-old heifer, brought \$2,050, going to the bid of the Otis Farm, Ohio. Dorothy Dimple, a roan yearling heifer, went at \$1,950 to Ross Martindale, Caledonia. Red Strawberry and Darling-ton Emma, two other Canadian entries, made \$1,500 each. The success of this sale indicates the demand for dual-purpose Shorthorns, and shows that the type Canadian breeders are developing meets with favor across the line.

## LIVE STOCK.

The butcher wants a low-down, square, thick-fleshed bullock. Are you producing this kind?

Have you selected the stock to show at the fairs this fall? It is time some fitting was being done.

An average of \$760 was made at the Farrow Short-horn sale. The heifers in calf to Millhills Comet averaged close to \$2,000.

Forty-one dual-purpose Shorthorns averaged \$578 at McMartin's sale in Minn. At a similar sale in Penn. 97 head averaged \$762.

Fly repellants applied in the morning afford the stock a measure of relief. The more comfortable the animals are the better gains they will make.

It is to the interest of producer and consumer to get behind the movement inaugurated to clean up disease in our herds. Are you lending your support?

Tuberculosis exacts a tremendous toll in the bovine and porcine classes of stock, besides endangering human life. Rid cattle of the plague and it will automatically be stamped out among the hogs.

Many stockmen speak favorably of co-operative marketing of live stock. The producer gets the selling price less cost of marketing, and one middleman's services is released for productive work.

The survey conducted by Prof. Leitch in the different counties go to prove that it is the farmers using pure-bred, quality sires that are making the greatest incomes. Did you ever stop to figure out the loss caused each year by using that poor-quality bull? If not convinced breed a few cows to the best bull in the county even if it costs twenty-five dollars a cow, and compare the progeny with that from that small, narrow-chested bull you are using.

### On Preparing Exhibition Pigs.

As to the best means to adopt to so bring one's pigs into the showyard in such a form as to deserve success, these are very simple and few in number. The main difficulty is to breed the pigs good enough in form and character, and having constitutions so vigorous as to be able to withstand the forcing requisite to get them into show form at an early or later age, according to the age at which they are intended to be exhibited. A point here to be considered is the early maturing qualities of some families or tribes; these must be utilized for the classes for younger pigs, and those tribes or strains which require more time to finish and develop may be reserved for providing pigs for exhibition in the classes for more matured animals. There are also a few, but a very few, tribes of pigs that will furnish animals which will not only be successful in the classes for younger pigs, but also train on and continue to take prizes for some years. Of course, there are the kind of pigs which should be secured by the novice, no matter what the cost may be, as the qualities they possess are not only most valuable for exhibition, but for breeding purposes. The same rule holds good with pigs as with most other kinds of stock—viz., that the very great majority of the most successful show animals of a particular breed will be found to trace to a few particular families or offshoots of it. It is true that an occasional winner will appear from within the ranks of other families, but the particular points of quality, style, action, compactness of form, and of others which it is impossible to define, but which are at once apparent to a really good judge, will not be observable in the produce of this come-by-chance prize-winner. In some cases, even the successful young animal of this character will mature into quite a different style of animal; its true character will come to the surface, and as it grows older the more apparent will its weakness become, whereas with an animal which has been for generations bred on the right lines, and from first-class parents, a marked improvement will for years be observable, with the result that an animal which in its earlier days might be considered just a fairly good specimen would in the end furnish into a really grand representative of the breed.

These last are the animals which the novice should attempt to purchase for his foundation stock, as they must be the possessors of good constitutions, of soundness, of fine quality of bone, of legs and feet which were intended to carry the carcass with celerity and safety, of quiet dispositions, and of the hundred and one other good qualities which go to make an animal as near perfection as it is possible to breed one.

Having "caught your hare," or bred the litter of pigs from which you confidently anticipate the pleasure of selecting a goodly number of prize-winners, the beginner must beware of the far too common plan of beginning to force the youngsters as soon as they will eat; by so doing the probable chances of success are frequently completely disposed of, as the youngsters will become feverish and often receive such a check, even if they live, as will effectually prevent their being trained for the showyard to be exhibited in the classes for young pigs. It is far better to try to forget that in these litters are embodied your hopes of future success and notoriety; let the sow be fed in the ordinary way, and then, when the pigs are some six or seven weeks, feed both sow and pigs on rather richer food than you would if the youngsters were intended for store pigs only. If the weather is at all genial, let them have an occasional run for a quarter

of an hour, when the sun is not very bright and hot. The sow may also continue to be fed somewhat more generously, so that the milk-flow will be larger and continue for a longer period, in order that the pigs may remain on her until they are ten to twelve weeks old. In this, as in most other things connected with the training of pigs, a variation may with advantage be occasionally made; sometimes the youngsters will actually thrive better when weaned than they have previously thrived whilst suckling. The necessity for weaning them will show itself in the coats and skins of the little pigs not looking bright and shining, the great objection of the sow to return to the pigs after being let out of the sty for exercise, and the evident reluctance of the pigs to suck the sow. Upon coming show pigs a little more care and attention should be devoted. The extra food will necessitate an equal extra amount of exercise, and mayhap at times a gentle dose of medicine. One of the great secrets of successful training of show pigs is to give them exercise frequently, not necessarily for a great length of time, but enough to give them an opportunity to stretch their legs, to ease their bladder and bowels, and to pick up a little grass, earth, etc., which will act as a tonic and as a medicine.

One most important point should be kept in remembrance, and most strongly impressed on the mind of the feeder that the young boars and sows are intended for breeding purposes. We are aware that the temptation to give to the growing pigs various foods and mixtures, which will enable the pig exhibitor to bring his pigs in apparently fine show form to one or two exhibitions, is great, but the results are disastrous to the owner if he wishes to go the round of the shows with the pigs, and to the purchaser who may be tempted by the sleek and fat appearance of the pigs, and to the fact of a prize having been won, to buy one or more of them with a view to keeping them for breeding purposes. We have frequently had complaints made to us that the show pigs which were bought of certain exhibitors almost invariably proved disappointing; they ceased to make the progress which they appeared to have made, and very frequently the litters of pigs—if any—from them would be small, weakly, and totally unlike the sire or dam when these were being successfully exhibited. There is little doubt that frequent experiences of this kind have led to the opinion which is most general, that the fitting up of young pigs necessarily spoils them for breeding purposes. This does not by any means follow, providing the young pigs have been trained and fed with care and judgment, rather than with the sole view of winning a prize at one or two shows, heedless of the harm which is certain to result to the young pigs exhibited. Self-interest alone, if nothing else, should, but doubtless will not, put a stop to this suicidal practice, as it is bound to ultimately result in a loss to the exhibitor who pursues it. His customers will not only desert him, but they will warn their friends against buying any of his stock, and should he fail to sell the pigs so unnaturally forced and fed, he will find them almost useless for breeding purposes, and thus his herd will gradually go back owing to his having spoilt his best pigs in his over-anxiety to win prizes. One of the great secrets of the success in the exhibition of pigs is to feed and train them that their breeding qualities are not impaired. That this is possible we have no hesitation in asserting. To be able to do this the beginner must purchase the very best of stock from a herd which has proved to be capable of furnishing for several years exhibits which can, without undue forcing, not only win prizes at one or two shows during a season, but will also stand the strain resulting from the con-

tinuous showing during the summer. We have seen pigs of all ages begin the season in May, and after being exhibited at various shows all the summer, the older ones have come out nearly as fresh in August as when they started, whilst the young ones will have grown, gained flesh, and improved generally. Thus the exhibitor must have the proper material to start with, and he must have trained the flesh on his pigs; the mere getting the fat is of no avail if several shows are to be successfully attended, and the exhibits are to be of any use for breeding purposes after the show season. Time and exercise are also necessities for the successful exhibitor. All those various foods or condiments, such as sugar, etc., which merely add to the bulk or fat of the pigs, must be carefully avoided; muscle and lean meat must be "walked on" to the pigs, and the latter fed on the best and simplest food possible. A mixed diet is of course necessary—wheat, barley, oats, peas, etc., all as finely ground as possible, will be found the best groundwork of the food, whilst mangels, tares, lucerne, clover, etc., will materially help to keep the show pigs in health. We have observed that cabbage has been recommended for the feeding of pigs; our experience of this is not favorable, especially for show pigs, as this and kohl-



A Group of English Dairy Shorthorn Heifers.

rabi to a slighter extent cause constipation.— Live Stock Journal.

### The Canadian Wool Market.

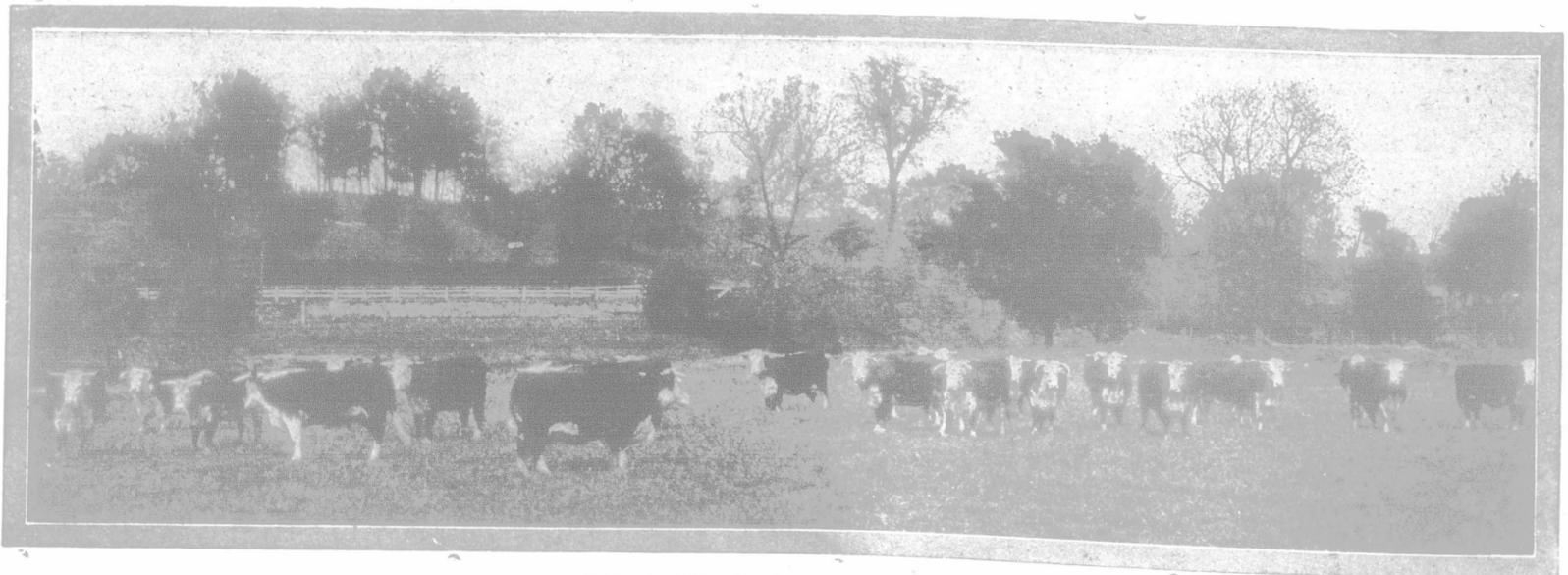
A report on the wool market, issued by the Live Stock Branch under date of June 24, indicates that there is no change of importance in regard to the market situation. The trade in Boston is at a standstill, owing largely to the difficulty of securing credits. The general idea seems to be, however, that this is a period of readjustment, necessitated by the revolt of the great mass of people against high priced woolen goods, and that in a comparatively short time trading will be resumed under more normal conditions. It is reported that the Co-operative Wool Growers' Association are well advanced with wool grading in Eastern Canada, and that the Western wool is beginning to arrive at the warehouse in Weston. In an article in a recent issue we drew attention to the fact that the graders were much more strict in making grades this year as compared with former years. Some wool producers may be disappointed with the grade secured, but in the end the results should be better. A prominent Boston wool broker, who recently looked over the Ontario and Quebec wools, stated that this year's stricter grading would result in a higher average price per pound than could be obtained under more lenient grading. In the last two or three years wool was in keen demand and the market was not over strict on the grade. This year the market is more or less glutted and the producer must put up a grade that will attract the attention of the purchaser and manufacturer. Producers must not become too uneasy regarding the sale of their wool. It is possible

that the market will become readjusted itself, and that fair prices will yet be obtained. It is altogether likely that wool will have to be held in storage longer than usual in order that the best market may be secured.

### Disease Lessens Profit.

The live-stock industry suffers a heavy loss annually through the effect of disease in the herds and flocks. Abortion and sterility prevent the normal increase, and tuberculosis causes a direct loss in many instances and in other cases infected animals are unthrifty and do not give a good account of the feed consumed. There is another phase to this dread disease, and that is the possibility of transmission of the germs from farm products to humans. Physicians are fighting the disease in order to preserve human life, but yet throughout the length and breadth of the land comparatively little has been done to safeguard the milk and meat supply of the human race. The extent of the disease in the herds is enormous and beyond the conception of the average person. Breeders of pure-bred stock find that a certain percentage of their herd react to the tuberculin test, and therefore will not be accepted into the herds across the line, or, in fact, into some of the other provinces. Great as is the loss in the pure-bred herds, it is even greater in commercial herds. But owing to the fact that little attention has been paid to the disease in these herds, few have any idea as to the real extent of it. An animal may be unthrifty and not do well in the feedlot or paddock, but comparatively few would connect this up with the infection of tubercular germs. The unthriftiness may be due to some other cause, but the chances are that if the animal were tested there would be a reaction, and if slaughtered tubercular lesions would be found in some part of the body. Then, too, some of the most thrifty cattle are diseased, and when slaughtered certain portions of the carcass must be destroyed as being unfit for human consumption. It is in the slaughter houses and abattoirs that the enormity of the disease in the commercial herds is seen. Hogs are also susceptible to the disease and where by-products of creamery or cheese factory are fed to the pigs, there is danger of transmitting the disease unless the products are pasteurized. Milk from diseased cows fed to calves or pigs will undoubtedly propagate the trouble in the young stock. A diseased animal in the herd is a menace, but it is sometimes difficult to detect it. The tuberculin test with cattle is reasonably reliable, and if the test is not abused will in over ninety per cent. of the cases pick out the infected animals. There is always a danger, however, of one or two of the diseased animals in the herd not responding to the test and consequently they remain as spreaders of the trouble.

Governments, producers, packers and consumers are beginning to take cognizance of the enormity of the loss to the live stock industry and of the danger to human life caused by this disease. Meetings have been held and committees appointed to work out a definite plan so as to co-ordinate the efforts of the above mentioned to lessen the danger and loss. Farmers and stockmen know that healthy, robust animals feed better and give greater returns for feed and labor expended than do those in any way affected. Consumers want meat from healthy animals, and packers do not care to stand the loss of consigning to the rendering tank animals purchased at a high price. Yet this is what they are compelled to do right along, as the system of inspection inaugurated prevents diseased meat from being sold for human consumption. It is seldom that this disease is apparent until the carcass has been dressed. Throughout the country there are smaller butchers where inspection is impracticable, but it is altogether likely that the percentage of diseased animals is on a par with that of the larger abattoirs. Unless a breeder or stockman has been testing his herd regularly and weeding out diseased or suspected animals he is not in a position to claim that his herd is any healthier than those of his neighbors. The accredited herd system, which has been inaugurated, is a means towards establishing tubercular-free herds. Some breeders who have listed



A Herd of Herefords on Pastures Green.

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their herds have found that a heavy toll was taken on the first testing, and some of their best stock has had to be sacrificed. However, it should be worth a good deal in dollars and cents to any stockman to know that he had a clean herd, and the satisfaction cannot be estimated in currency. Purchasers of high-priced animals are now demanding a test before the deal is finally completed. It will take years even under this system to clean up the pure-bred herds, but it is a step in the right direction.

The commercial or grade herds have been allowed to take their course, but the time has arrived when the importance of having tubercular-free commercial as well as pure-bred cattle is being recognized. The aim of every stockman should be to have a clean herd. It may mean a slight loss at the start, but in the end it will pay in many ways. If any part of the animal system is diseased, the feed is not being used to the best advantage; therefore, the healthier the herd the better the returns. If the cattle are tubercular a large percentage of the hogs on the same farm are also likely to be tubercular. The cleaning up of the bovine herd will automatically result in the porcine herd becoming comparatively free from tuberculosis. The committee composed of representatives from the Government Departments, live stock producers, and packing firms, who are framing a plan which should materially aid in cleaning up the disease, should be given wholehearted support by producers and consumers alike.

### Halter-Break the Calves.

At a good many of the sales some of the animals do not show a disposition to respond to the halter, which is an indication that they had not been handled when young. If a calf or colt is taught to lead there is little difficulty with it when it matures. Too many of our calves and colts are permitted to run wild until the time when they are needed for productive purposes and then they are so unmanageable that it takes a good deal of time to bring them into subjection. A good deal can be done to train an animal so that it will practically pose, or stand at attention, in the show-ring or when being photographed. It is a mistake to abuse young stuff; rather, they should be taught that the attendant is their friend and be trained to lead from



Getting in Condition for the Fair.

place to place. The more accustomed an animal becomes to the halter, the easier it is to show its good qualities in the show-ring or when making a sale. We realize that with a shortage of help, there is not much time left for training the calves. However, if a little time could be spared from the other work it would pay well, especially if the animal is to be kept on the place for breeding purposes, or is to be put in the showing:

### Grub in the Head.

During July the sheep gad-fly is liable to lay its eggs in the nostrils of the sheep, where the eggs finally develop into larvæ and form a grub which causes the disease known as grub in the head. When you see the flock with their heads down and stamping vigorously at irregular intervals, it is an indication that the gad-fly is in the vicinity. The result of its work will not be seen until the following winter. Prevention is in this case far easier and better than attempting a cure. The best plan is to keep the nose daubed with some repellent substance, such as oil of tar, coal-tar dip, iodoform, etc. It is rather difficult to catch the individual sheep and apply the material, but it can be done quite easily by boring holes in a log with a two and a half inch auger. These holes are then filled with salt and the margins smeared daily with the repellent mixture. Sheep like salt, and in their attempt to get it their noses get a thorough daubing. The adult of the grub is a small, gray-colored insect about the size of the common house fly, and works principally in bright sunlight. Once the grub becomes established in the head, it is very difficult to eradicate it, consequently prevention should be practiced.

## THE FARM.

### Less Disease, More Potatoes.

Seed potatoes were a high price this spring, as anyone who had to buy knows full well, consequently every effort should be made to prevent disease in the crop, and so enable the plants to produce the maximum crop. The potato responds to proper cultivation, and it is a good plan to keep the cultivator going at intervals of a week or ten days. The potato beetle is usually waiting for the first appearance of the leaves. If allowed full sway it is very destructive; therefore, control measures should be decided upon before any damage is done. There are several destructive diseases which also take a heavy toll of the crop. Most of these may be controlled by using the proper fungicide at the time the poison spray is being applied to destroy the bugs. Late blight possibly causes the heaviest loss, and it is one which can be controlled. It commences its work at the margin of the leaf and spreads rapidly if the weather conditions are favorable. There is a water-soaked appearance, with a purplish tint, to the affected parts. This prevents the leaves from functioning as they should, and the disease follows down the stem to the tuber, where it causes a rot. Some years the blight causes an exceptionally heavy loss. Warm, moist weather during the latter part of July and throughout August is particularly suitable for the development and spread of the trouble. Under such conditions an entire field may become infected almost overnight. As a preventive the plants should be sprayed with Bordeaux mixture from the time they are five or six inches high, at intervals of ten days or two weeks. In some seasons five or six applications are necessary, while in others two or three will suffice. A four-row horse-drawn sprayer is splendid for applying the spray. The Bordeaux mixture is made by dissolving four pounds of copper sulphate and four pounds of lime in forty gallons of water. The sulphate is rather expensive, but it is a good insurance against this destructive disease. Eight ounces of Paris green and a pound of arsenate of lead may also be added to the Bordeaux to destroy the bugs, and the one application does both jobs. Where a person has a large acreage to do, it is a good plan to make a stock solution of the Bordeaux mixture. To do this the copper sulphate may be dissolved at the rate of one pound to one gallon of water, and the lime slaked in the same

proportion. When using the solution, one gallon would represent one pound of the material. The lime and sulphate should be kept separate until just before being used. A person cannot tell what the weather conditions will be during the next six weeks, neither does one know whether the blight will be bad or not. Consequently, it is a good plan to apply Bordeaux to the potato crop as an insurance against a probable attack of this disease.

### Forest Protection.

EDITOR "THE FARMER'S ADVOCATE":

During the early days of June the horizon was smoky and indistinct. Again, forest fires have been raging in Northern Ontario and the eastern provinces. The exceptionally dry spring had made the woods like tinder. Our sympathy goes out to the settlers, and others who have suffered. With lumber at sixty dollars per thousand it is to be regretted that thousands of acres of timber have been laid waste.

Statistics show that for every twenty trees that Nature grows we cut down seventeen, and burn one hundred and seventy. If this destruction continues without sufficient reparation, the thousands of wood-using industries of Canada are going to suffer, among which are over sixty-five pulp and paper mills. I have heard an authority state that if the pit-props used in the coal mines of Nova Scotia were loaded on a long train it would reach from Halifax to the coast of Ireland.

It seems to me that old adage is very applicable to forest fires, "an ounce of prevention is worth a pound of cure." A great deal of time and money, and often human lives, are spent to arrest the conflagration that may have started from the discarded match, thrown by the careless smoker or from his unextinguished campfire.

The work of the fire-rangers is praiseworthy. They have roads cut through the forests so they can reach a fire with the greatest possible speed. They also have lookout towers on the hills, enabling them to see for miles over the tree tops. The telephone proves of great assistance, and it is expected that the aeroplane will be an efficient agent of forest protection.

Precaution should be taken to preserve our forests and wood lots. In Ontario there are areas of barren land which could be devoted to forest growing. Such land as it stands is an absolute waste, as it is not suited to the growing of any other product. The man who plants trees for the use of generations to come, builds to himself a lasting monument.

Protect! Preserve! Propagate!  
Simcoe Co., Ont.

N. E. S.

### School Consolidation in Saskatchewan.

EDITOR "THE FARMER'S ADVOCATE":

The experience of the Province of Saskatchewan with consolidated schools dates back to a 1913 amendment to the School Act allowing the organization of a school district of not less than 36 square miles nor more than 50 in area. Progress has been steady but not rapid. In 1918 there were 23 such schools in actual operation, 5 having been established in that year, but one of these was disorganized, the difficulties of transport proving unsurmountable. The total number of public schools in existence at the end of 1918 was 4,126. The latest report of the Department of Education at hand from the Minister, Hon. M. W. Martin, endorses its educational advantages, but its business features require very careful consideration. It has made most headway in the better populated rural areas where the original school houses were poor and equipment out of date. Experience has been varied. The largest district is at Cabri with an average attendance of 143 and a cost of operating conveyances in 1918 of \$3,680. The total Government grant paid the district was \$2,036 of which \$1,226 went toward conveyance. The largest per capita expenditure for 1918 was Lemsford the total outlay for maintenance being \$6,130, more than one half of which was for conveyance of pupils. Cupar district operating seven vans paid out for conveyance \$5,051. The highest rate of taxation was in Paynton district with 16.25 mills on the dollar in the rural municipality and 33 mills in the village. The total grants earned by the consolidated schools in 1918 was \$25,656 of which \$14,509 was for conveyance at the rate of one-third the cost of conveyance. The total Government grant works out to \$23 per capita of average attendance. The smallest area was 37½ square miles. The rural tax rate varied from 4.37 mills on the dollar to 16.25, and the village or town rate from 4.5 to 33 mills. The total expenditure (1918) per pupil enrolled varied from \$24 to \$113 each. The percentage attendance varied from 42.43 to 70.37. Covered vans, autos, private rigs and buggies were all in use. Three kinds of Government grants were distributed "Regular," "Conveyance and Supplementary." From a special report issued in 1917, the wages paid van drivers varied from \$2.50 to \$4.00 per day, but under later conditions of labor scarcity conveyance costs were increasing. According to the statutory form of agreement provided, the contractor furnished the team and the school board the vehicle, heaters and rugs for children. The farmer was required to give bonds for the proper discharge of his duties and make out a daily report to the school principal. Flancombe district reports a cost tax rate 6.5 mills on a valuation of \$2,500 to \$3,100 per quarter-section (160 acres). Ratepayers satisfied. From Portreeve district great dissatisfaction is reported chiefly in regard to conveyance in cold weather, and in competent van drivers though their pay is excessive. In Trossachs district, conveyance almost equals the total combined up-keep of the two original schools. In one case where the settlement was too sparse to work vans, each family having children of school age entitled to conveyance were contracted with to transport their own youngster at the rate of 10 cents per mile each way per day. In case of two families living adjacent joint arrangements were made. One objection, noted, to be overcome, was keeping children on the road too long viz. from 7 to 9 o'clock a.m. in some cases. The number of vans in use per school vary from 2 to 7. Up to 1917 this cost of conveyance per pupil per day was about 30 cents. One statement (Cupar district) shows an increased average attendance from 1912 to 1916 of from 44.32 to 86.775. It has proved the means of attracting a better class of teachers. According to the 1917 report, the teachers in consolidated schools were receiving salaries varying from \$675 to \$1,200 per year. The average in 1917-18 for all rural teachers was: First-class men, \$1,027, women, \$994; second-class men, \$1,002; women, \$951; third-class men, \$989 and women, \$905. From all the reports examined it is apparent that consolidation in Saskatchewan effects a decided, improvement in attendance and punctuality. It also brings within reach of pupils who otherwise could not secure it the benefits of high school training up to junior matriculation. It should be borne in mind that the Province has only seven collegiate institutes and 15 high schools. Though the cost of consolidated schools is greater, sometimes double, the advantages compensate, and school boards and people in most cases do not propose reverting to old conditions. One secretary-treasurer advises that consolidation should not be attempted in purely rural districts, but in conjunction with a village or town.

The next article will deal with conditions in Alberta Province along with some general conclusions.

Middlesex Co., Ont.

ALPHA.

# June in the Maritime Provinces.

SPRING in the Maritime Provinces this year could have been better, but it could have been far worse. It was not an average season. For a solid month prior to June 4 and 5 there was no rain and in some districts even a longer dry spell prevailed. Throughout this rainless month the weather was cool, the soil was in excellent condition for working and seeding went on apace. While the early dry period retarded pastures and reduced the hay crop somewhat it, nevertheless, facilitated the seeding and made it possible to put in larger crops, and put them in better than would have been possible with the existing labor shortage under more trying climatic conditions.

Nova Scotia has about the average acreage under crop. While the high price of potatoes may have stimulated the desire of some growers to enlarge in their operations somewhat, the scarcity of seed and cost of fertilizers prevented any great expansions. From what can be learned, the farmer who always grows a few acres each year had sufficient seed this spring to meet his needs and, on the whole, the potato acreage in Nova Scotia will probably not exceed or fall below the average. The hay crop does not look any too promising. At time of writing (June 26) uplands are short and even the marshes reclaimed from the sea along the headwaters of the Bay of Fundy are not up to their old-time standards. Grass in Cumberland and Colchester Counties is looking better than it is farther west in the Province, but even in the best districts there will not be anything superior in the way of a crop. There has been good growing weather of late and by the middle of July, when haying usually begins in the East conditions may have improved considerably.

The one notable development in the Maritime Provinces is the steady growth of the dairy industry; creameries, particularly, are increasing in number and in the volume of their make. Farmers are turning to the cream business as the best outlet for their farm products, more cows are being kept by patrons of creameries and converts are settling down to some definite businesslike policy of disposing of their milk or cream. A representative of "The Farmer's Advocate" has just completed a survey of the three provinces; many creameries have been visited, farmers have been interviewed on their own farms and almost everywhere the opinion exists that only through dairy products can the Maritime producer obtain the best marketing facilities for the finished product of his herd, and the most remuneration for his labor. All creameries visited, reported an increase in their make this spring which was accounted for by more patrons and increase in the size of herds contributing. The succulent fodder for winter feeding is produced largely from roots.

The Maritime climate is particularly adapted for turnip growing, and yields well over 1,000 bushels per acre are not uncommon. Club-root is playing havoc with the turnip-growing enterprise, particularly in Nova Scotia, but it is possible (though not yet demonstrated) that lime may be an effective combative agent. A comparatively new farm crop, and one that will do the Province an inestimable amount of good, is clover seed. Maritime Province farmers do not sow enough clover seed; they never have seeded to clover in sufficient quantity to realize the benefits that accrue but when they produce their own seed they are more liberal in their seeding and their farms are the better for it. Somewhere between 150,000 and 175,000 pounds of clover seed were produced in the three provinces last year. The industry is growing. Turnip-seed production is also a comparatively new enterprise and in Nova Scotia, especially, there is being developed a good business in home-grown seed. Some difficulty is experienced in wintering the stecklings, but the casual observer would not be aware of that when gazing at the mass of bloom which now covers the seed plantations.

## PRINCE EDWARD ISLAND.

Practically the same weather conditions prevailed on Prince Edward Island this spring as obtained elsewhere in the East. Seeding was executed in good order and the spring grain is coming along well. There is no province or state in the new world so distinctly agricultural as is Prince Edward Island, and no province or state in the new world can surpass the Island in natural and pastoral beauty. The land is gently undulating and practically all arable, for which Nature must be given the credit, but the Island farmers are deserving of unstinted commendation for the neatness of the homes, the regularity of the fields and the general appearance of the country as a big, prosperous agricultural community with tidy, comfortable homes and beautiful surroundings. The Island well deserves to be known as "The Garden of the Gulf" and at no time are its claims to such distinction more emphatic than during the month of June.

The hay crop will not be above the average this year. Some meadows were looking well indeed, but as a rule the grass was shorter than it should be for the season. Haying does not, as a rule begin, until the middle of July, and good growing weather has prevailed of late, but the crop is made or unmade earlier in the season and the general opinion is that the yield will be lighter than usual. The growing grain gives promise of a good yield and turnip planting was followed with seasonal showers so the beginning is favorable for a root crop. Potatoes are about holding their own on the Island, but in the district traversed by the line of railroad which runs between Emerald Junction and Borden

there is probably an increase. M. J. McIvor, in that locality, has a large acreage and neighbor farmers are following suit. These growers are developing and catering to a trade in the New England States which demands a white potato and the growers in the locality mentioned are producing it in considerable quantities. Blue and red varieties are more in favor on the Island because, while they do not yield so heavily as the white kinds, they are more resistant to disease. The Maritimes and Newfoundland provide the market for the colored varieties. Outside of the district designated the area planted to potatoes is about average in extent. As in Nova Scotia and New Brunswick there is a growing interest in the dairy business. Creameries report an increased volume of product, due in most cases, to a growing list of patrons. The breeders of pure-bred dairy stock are enthusiastic, and at time of writing a Holstein breeder and an Ayrshire breeder are, in company with W. J. Reid of the Provincial Department of Agriculture, looking over Quebec and Ontario for good foundation material. They will probably take two carloads of Hólsteins and Ayrshires back to the Island with them. From our own observations we would judge that the dairymen need fewer and better sires with which to build up their herds. There are a great many bulls on Prince Edward Island that have no pride of ancestry and should be allowed no hope of posterity. The Agricultural Commissioner, Hon. Walter Lea, is inaugurating a policy for the encouragement of good sires which will do the dairy industry a wealth of good.

## NEW BRUNSWICK.

Much that has been said regarding the early spring season in Nova Scotia applies with equal force to the Province of New Brunswick. A general rain prevailed throughout on June 4 and 5, but since then the precipitation has been light and the soil in most parts is now very dry. The hay crop, especially on the high lands, will be a light one and the spring grain needs moisture to hasten it along. No alarm, however, is



A Beauty Spot in the Maritime Provinces.

felt at time of writing. It is difficult, at present, to estimate the potato acreage. Carleton County is the big potato-growing district and some authorities state that the acreage is increased there by one-third. A. A. N. Margison, President of the N. B. Potato Growers Association is not of this opinion, however. In conversation with a representative of "The Farmer's Advocate" he stated that there was no increase over last year, due to the scarcity of seed and the inability to obtain sufficient commercial fertilizer. More than that, much of the seed is rotting in the ground for which the dry weather is blamed. Potatoes are, in many districts, showing well above the ground, but a good percentage of these are Cobblers or other early varieties. Preparations are being made for spraying as only in this way can "bugs" and blight be successfully combated.

Dairying is making rapid strides in New Brunswick, and for the past two weeks considerable interest has been taken in the St. John milk supply situation. The city of St. John is using daylight saving time and to accommodate some suburbanites the early train from Sussex to St. John was put ahead one hour or in other words run on daylight saving time. This was a great inconvenience to the farmers supplying milk to the city for it necessitated very early rising in order to get the milk on the train. The King's County Milk and Cream Producers Association withheld their milk and were fortunate enough to be able to divert it to the creameries and cheese factories in the district. A controversy ensued which involved producers, suburbanites, city of St. John and the railroad, the latter apparently being willing to accede to the wishes of the majority. At time of writing the report is that the train in question will again be run on the old schedule and continue as a milk train as it has been for the last quarter century. It is just another instance with the whole organization of society and where the wishes of the few are foisted upon

the masses. If the train is returned to old time, and circumstances almost assume that it will, it will be a signal victory for farmers' organizations in the Maritimes. The Moncton creamery is improving and almost doubling its plant this year and a new creamery is being started at Fredericton. This plant is also manufacturing ice cream and has a local whole-milk trade. The Fredericton plant grew out of a quarrel between producers and dealers last autumn, the outcome being a farmers co-operative company and a plant with equipment costing \$15,000. Mr. Kitchen, the President, said to the writer: "It was either this or go out of the milk-producing business." From what we saw and heard about the plant we would judge that success for the organization is assured.

A prohibition plebiscite is to be taken on July 10 to determine the future policy of the Province in regard to temperance legislation. A prohibition Act has been in force and the ballot provides for its continuance or abandonment. Both sides are working hard but the general opinion is that prohibition will be carried.

## THE DAIRY.

### The Dairy Markets.

EDITOR "THE FARMER'S ADVOCATE":

I walked to the office this morning (June 11) with a man who owns one farm in Oxford County, and controls two others. His own farm is operated on the share plan, of "fifty-fifty", or about that. He says that the farmers in his district are threatening to sell their cows and quit the milk business because of the low price of milk; particularly is this the case with those who patronize the "condensers" and "powder" factories. He says the cheese factories are paying a higher price for milk than are the "condensers," and from the latter there is no whey, or any other by-product. Evidently

farmers in Oxford are beginning to realize the truth of a statement made recently in the Editorial column of "The Farmer's Advocate", if I remember rightly, to the effect that dairy farmers made a mistake when they allowed so many cheese factories to close. Undoubtedly the creameries and cheeseries of Ontario are the safety-valves of the dairy business.

Continuing, this man said, "My neighbor and I have alternated week about hauling milk to the condenser ever since it started, but he put in a separator this spring so that now I'm the only one on that line patronizing the condenser, and I do not know how long I'll continue." He further observed that on the two farms which he controlled, the plan was to keep some hogs and chickens, raise a few calves and have as many "side-lines" as possible. "I believe this is the safest kind of dairy farming", he said and I agreed with him.

This man has had exceptional opportunities to study the methods of farming in several parts of Ontario. In fact, I know of no one who is so well informed on the subject of farming methods particularly as to dairy farming and his observations are worth noting and carefully considering.

What is the cause of this discontent among dairy farmers? There must be some reason for this threatening attitude of the man who owns, feeds and milks cows. There are a number of causes, such as dissatisfaction with the tests, loss of time delivering milk, etc., but the main one is the comparatively low price of milk at practically all the manufacturing concerns. The markets for butter, cheese, condensed and powder milk have not kept pace with the increasing cost of milk production. This has caused much dissatisfaction among dairy farmers.

Is there any good reason for comparatively low prices for dairy products? So far, we have failed to find such. Most dealers and speculators are guided by statis-

tics with references to prices which they will pay. If there is a shortage of any staple commodity, particularly a good product, prices go up; and if there be over-production, prices tend downwards. What is the statistical position to-day, with reference to milk and its products? According to reliable information the receipts of butter in the month of May for New York markets, were 130,000 packages less than for May 1919. In Chicago, the number of packages of butter was 91,000 less in May this year, as compared with last year.

The Canadian figures are similar. According to the Dairy Market Report from Ottawa, June 5th, there is a shortage in receipts to date in Montreal of over 20,000 packages of butter and about 10,000 boxes of cheese as compared with a similar date last year. We recognize that Montreal does not receive all the dairy products made in Canada, but the Montreal receipts of butter and cheese are a pretty fair indication of Canadian production comparing one year with another.

The condensed milk markets have been somewhat "draggy," but latest reports are very much improved in tone. It seems that each year at the beginning of the dairy season, prices are "hammered down" to a point where the farmer grows discouraged. This, coming at a time when production is greatest, is wholly unfair to the producer. As a rule the goods manufactured during May and June are not consumed until months later when prices have usually advanced, but the farmer does not share in the advance. The "Wheat Certificate" plan looks like a good move and something similar should be worked out for the dairy business. How this can be done has yet to be solved, but it should not

be impossible to evolve some plan, whereby the milk producer would be paid current prices for their goods early in the season, then when the goods are finally sold for consumption, there should be an additional payment, representing added values as a result of advancing dairy markets. Carrying and cold-storage charges, of course, would have to be deducted. This would mean that cold-storage warehouses must needs be provided and that special transportation cars and ships would be required. The great packing-houses of the United States and Canada have shown the way to control trade in food products and how the last cent can be extracted in the form of profits. The greatest weakness on farms to-day is in marketing farm products. We have not come anywhere near solving this problem.

Looking at the question of markets for dairy products in a broad way, it would seem as if there is a tendency everywhere to force the price of butter, cheese and condensed milk downward. This is true not only in America, but also in European markets, according to the Swiss Agricultural Society. So far as we can learn, there is a world-shortage of the products of the dairy, and prices should be going up instead of coming down. That this should be the case, is reflected to some extent in the small advances made recently in the butter markets. All admit there is a shortage of June butter, but little is done in the way of advancing prices in order to stimulate production. The cheese markets have got into a 28 to 29 cent. rut, after travelling for a short time at a 30-cent. and above, clip. Our dairy products are not efficiently marketed. As soon as there was likely to be a shortage of wheat, those interested in wheat

marketing began to talk "five-dollar-wheat." The price of wheat, flour and bread, at once advanced as a result of this sentiment. Talk about sentiment in love, poetry, romance, etc., they cannot begin to compare with the amount of sentiment found in the wheat and sugar markets, for example. Dairymen need more "sentiment" in their business. The long hours and the every-day-at-it, of work on a dairy farm, tend to drive this element largely from the farm where cows are kept. It would pay the dairymen of this country to engage someone with plenty of sentimental feeling to "play-up" this feature of dairy work. He would probably have a hard time, for instance, trying to work on the feelings of cheese-buyers, but the continual dropping of water will wear a stone, we are told.

Seriously, there is great need for keeping the value of milk and dairy food products before the consuming public. If those who are indifferent about the subject were to read frequently that milk is worth fifteen cents a quart, butter is worth seventy-five cents a pound, and that cheese is worth fifty cents a pound, that there are no foods like them, etc., it would do much to prepare the consumer to pay these prices. We are not in favor of exorbitant prices for milk or any other food, or any needed commodity, but all admit that dairy products have not shared to the extent they are entitled, in the advancing prices for food. There is also great need of definite and determined action on the part of dairymen to prevent the "hammering down" of prices of milk, butter and cheese, which seems to be a world-wide tendency at present.

O. A. C. Guelph.

H. H. DEAN.

## Finding a Market for Our Milk.

### V. THE CITY MILK MARKET.

It is very difficult to realize the vast quantity of milk produced annually in Canada. Definite statistics are not available showing the actual totals, but it is safe to put the amount at approximately 12,000,000,000 pounds. In the United States it is estimated that 90,058,000,000 pounds were produced in 1919. This was secured by figuring an average production of 4,000 pounds per cow for an estimated number of 22,650,000 producing cows. A like method of calculation with regard to the 3,547,437 milch cows in Canada in July 1919, according to the Bureau of Statistics, would indicate a production of 12,013,200,000 pounds. Again, the amount of milk used in the United States for manufacturing purposes in 1919 is said to be 50 per cent. of the total production. In Canada, in 1918, statistics show that approximately 6,200,000,000 pounds were used for manufacture, so that it is probable that the above estimate of the total production in Canada is not far wrong.

It is still more difficult to estimate the quantity of milk produced for city consumption as milk. Assuming, however, that Canada's population now is 9,000,000, that 50 per cent. are urban dwellers and consume one-half pint of milk per day, it would require 1,026,000,000 pounds per year, or about 8 per cent. of our total production to supply this market. The actual percentage is probably much higher than this, and in the United States is reckoned at 13 per cent. for cities alone, with

*This article is the fifth and last of the series of dairy articles that began in "The Farmer's Advocate" issue of June 10, under the heading, "Finding a Market for Our Milk." It is hoped that these five articles have been of some benefit to our readers and to the dairy industry as a whole. Every effort has been made to insure correctness of facts and figures, while opinions that have been expressed were only put forward after careful consideration had been given them, and after much time and trouble had been expended in gathering from every quarter the most reliable dairy information. Such criticisms as have been made, we hope have been constructive; and in any event we do not believe they have been without foundation.*

an additional 8 per cent. for farms other than dairy farms and towns. Whatever the actual amount may be, say 2,000,000,000 pounds, one finds it difficult to appreciate the significance of such large quantities of milk. Speculating further, let us say that the average production per cow for this market is 5,000 pounds, and simple division places the total number of cows producing for this market at about 400,000. No doubt further

calculations would evolve other interesting estimates, but enough has been said to prove, even if the best figures obtainable are somewhat fanciful, that the business of supplying the most vital human food to the people of our towns and large cities is no inconsiderable one.

### HOW CITY FOLK ARE SUPPLIED.

Nothing points out more clearly than this matter of the city milk market the complexity of modern civilization. We who may go to the milk-house for a generous pitcher of milk or cream produced on our own farms, do not often realize the steps that are necessary before the city family can be supplied with the same beverage and food. It is only when we come to buy other articles not produced on our farms, but which are carried to us as milk is carried to the urbanite, that we feel the effects of modern distribution of labor, and perhaps get out a pencil and paper so as to roughly estimate what the article in question originally cost the maker. When people move into cities in large numbers they soon begin to greatly diversify their occupations. They get farther and farther away from the simplicity of our forefathers, and so it is that large businesses are built up to cater to the needs of the rest of the people. Some people supply the others with coal and wood. Some secure fresh vegetables and fruits which they retail at a profit to those who are too busy or have not the room to grow their own. In the same way, houses, clothing, light, water and other necessities are supplied for the

Comparative Prices for Milk for Various Markets Secured by Producers in Canada and the United States.

| Month              | Canada (a) |          |                        |        |          |         |                    |                  |                    |           | United States (b) |                 |                   |                |                            |                               |                 |                            |                               |
|--------------------|------------|----------|------------------------|--------|----------|---------|--------------------|------------------|--------------------|-----------|-------------------|-----------------|-------------------|----------------|----------------------------|-------------------------------|-----------------|----------------------------|-------------------------------|
|                    | Cheese     |          | Creamery per lb. b. f. |        |          |         | Condenser 1919 (d) | Milk Powder 1919 | Ice Cream 1919 (d) | City Milk |                   | Cheese 1919 (e) | Creamery 1919 (f) | City Milk 1919 |                            |                               | Condensery 1919 |                            |                               |
|                    | 1918       | 1919 (c) | No. 1                  |        | No. 3    |         |                    |                  |                    | 1918      | 1919              |                 |                   | U. S. Average  | Middle Atlantic States (g) | (h) East North Central States | Average         | Middle Atlantic States (g) | (h) East North Central States |
|                    |            |          | 1919                   | 1919   | 1918     | 1919    |                    |                  |                    |           |                   |                 |                   |                |                            |                               |                 |                            |                               |
| January            | \$1.94     | \$2.54   | \$.575                 | \$.555 | \$.50    | \$.58   | \$2.75             | \$2.89           | \$2.90             | \$2.50    | \$2.90            | \$3.40          | \$3.03            | \$3.81         | \$3.60                     | \$3.72                        | \$3.43          | \$3.53                     | \$3.58                        |
| February           | 1.76       | 2.28     | .565                   | .56    | .50      | .56     | 2.75               | 2.86             | 2.90               | 2.50      | 2.90              | 2.60            | 2.68              | 3.67           | 3.65                       | 3.46                          | 3.28            | 3.56                       | 3.28                          |
| March              | 1.68       | 2.20     | .59                    | .57    | .51      | .58     | 2.75               | 2.75             | 2.90               | 2.50      | 2.90              | 3.05            | 3.02              | 3.46           | 3.32                       | 3.02                          | 2.93            | 3.33                       | 2.93                          |
| April              | 1.67       | 2.20     | .63                    | .625   | .525     | .64     | 2.40               | 2.45             | 2.90               | 2.50      | 2.90              | 2.95            | 3.12              | 3.27           | 2.94                       | 2.76                          | 2.79            | 2.91                       | 2.61                          |
| May                | 1.65       | 2.41     | .555                   | .54    | .46      | .56     | 2.75               | 2.33             | 2.30               | 2.50      | 2.32              | 3.10            | 2.90              | 3.22           | 3.13                       | 2.61                          | 2.70            | 3.10                       | 2.64                          |
| June               | 1.73       | 2.40     | .52                    | .51    | .46      | .52     | 2.35               | 2.50             | 2.30               | 2.40      | 2.40              | 3.13            | 2.69              | 3.18           | 3.01                       | 2.66                          | 2.71            | 2.95                       | 2.59                          |
| July               | 1.68       | 1.96     | .525                   | .515   | .46      | .54     | 2.50               | 2.58             | 2.30               | 2.40      | 2.42              | 3.15            | 2.72              | 3.17           | 3.09                       | 2.94                          | 2.80            | 3.06                       | 2.90                          |
| August             | 1.67       | 2.11     | .545                   | .54    | .46      | .56     | 2.50               | 2.58             | 2.42               | 2.50      | 2.42              | 2.99            | 2.80              | 3.44           | 3.37                       | 3.41                          | 3.05            | 3.23                       | 3.28                          |
| September          | 1.95       | 2.15     | .575                   | .56    | .48      | .57     | 2.65               | 2.75             | 2.42               | 2.50      | 2.42              | 2.82            | 2.92              | 3.54           | 3.45                       | 3.51                          | 3.12            | 3.32                       | 3.39                          |
| October            | 2.22       | 2.62     | .60                    | .58    | .47      | .64     | 2.75               | 2.85             | 3.20               | 2.50      | 3.20              | 2.97            | 3.22              | 3.71           | 3.39                       | 3.62                          | 3.24            | 3.25                       | 3.48                          |
| November           | 2.51       | —        | .645                   | .64    | .53      | .64     | 2.95               | 3.20             | 3.20               | 2.50      | 3.20              | 3.13            | 3.35              | 3.79           | 3.51                       | 3.63                          | 3.56            | 3.44                       | 3.56                          |
| December           | 2.50       | —        | .725                   | .70    | .57      | .71     | —                  | 3.20             | —                  | 2.90      | 3.20              | 3.13            | 3.39              | 3.81           | 3.73                       | 3.73                          | 3.48            | 3.74                       | 3.61                          |
| Yearly average (i) | 1.93       | 2.28     | (j) .562               | .574   | (j) .481 | (j) .55 | 2.64               | 2.76             | 2.62               | 2.51      | 2.76              | 3.04            | 2.98              | 3.50           | 3.35                       | 3.25                          | 2.91            | 3.29                       | 3.15                          |

The following notes should be taken into consideration when considering the above table: (a) Canadian figures as to dairy prices represent monthly prices paid by individual factories here and there in Western Ontario. In the case of prices per pound butter-fat paid by creameries, No. 1 had a make of about 270,000 lbs.; No. 2 is a centralizer with a make three times as large as No. 1, and No. 3 is one of two creameries owned by a single man and having a make amounting to

425,000 lbs. in 1919. (b) Figures for the United States are from market reports issued by the United States Bureau of Markets, Washington. (c) November and December prices not available. (d) December prices not available. (e) Cheese prices in the United States were based on the returns from co-operative cheese factories. The prices were estimated on the basis of ten times the monthly prices of American twin cheese, sold on the Plymouth Cheese Board, plus an allowance of 15 cents for the feeding value of whey. (f) Based on returns from co-operative creamery plants and milk

prices estimated at a price of 3 cents above the average monthly quotations for butter in the New York market. (g) Middle Atlantic States include the States of New York, New Jersey and Pennsylvania. (h) The East North Central States include Ohio, Indiana, Illinois, Michigan and Wisconsin. (i) The yearly average, except as noted in (j), are simple arithmetical averages of the prices shown for the twelve months of the calendar year. (j) The yearly averages in these instances are actual averages based upon the amount paid to patrons, divided by the number of pounds of butter-fat supplied.

majority. Milk is one of these necessities, and in all towns and cities men make a special business of supplying other men and their families with milk. These men are called milk distributors because they buy milk in large quantities from the farmer who produces it and deliver it from house to house by the quart or pint. Theirs is a very much specialized business, and they must conduct it in certain ways laid down by the health authorities of the town or city. People in towns and cities have not even time to keep themselves healthy, and so health officers are employed to protect the health of the others. These officers follow the milk from the farm to the user's home, and the distributor must erect expensive plants to insure its sanitary condition. These people in the city must have their milk for breakfast, and although the milk wagons begin to load up at midnight, a large number of them are required if the milk is all to be delivered in reasonable time. Probably 300 quarts would be a good load to distribute from door to door. There may, too, be half a dozen wagons travelling the same street each from a different distributor, and each getting part of the business. This means longer routes for each wagon and more expensive delivery. The average urbanite is a real autocrat. He demands this service, but if it costs more than he thinks it should, he decreases his consumption, even of milk, and thus the distributor's business and profits are cut down. He, however, besides catering to the whims of the city public, is also trying to enlarge his business at the expense of some competitor. Service has been his watchword; and the consumer dotes on service, but will quit buying if there is any sudden increase in the cost of it. The result has been that the producer has, to a certain extent, at least been forced to pay the piper, and now gets only 8.13 cents for a quart of milk that costs the resident of Toronto 14.28 cents.

#### WHERE DOES THE DIFFERENCE GO?

What is the distributor doing with the difference of 6.1 cents? He has the milk delivered at his plant for 8.13 cents and uses 6.15 cents in caring for it, distributing it and in securing interest on his investment and profit. We will not pretend to say that he is getting too much, but we do know that the producer is getting too little if we base our opinion on what it costs the average man to produce it. Probably the distributor is getting all that is fair, if no more, but the consumer is paying too little for the product he gets and the service he expects. Just recently one large distributor, handling about 1,300 cans of milk per day, was good enough to show us the figures on his books for the month of May. It cost nearly half as much to handle the product as it did to buy it. Taking the total paid out as 100, the cost of handling was 36.9 per cent., and the purchase price of cream and milk required for the business was 63.1 per cent. Wages to the men on the delivery wagons cost about one-seventh the total purchase price of the milk and cream. The total delivery costs were practically one-fifth the purchase price. Office expenses were about one-tenth and the expense of caring for the milk in the company's plant about the same. It took an amount equal to over 3 per cent. of the purchase price to operate the company's engineering department alone. Thus it can easily be seen that although the sales of butter, buttermilk and cream amounted to 160 per cent. of the cost of the cream, and milk sales amounted to 142 per cent. of the cost of the milk, the expense of handling these products would make a heavy inroad into these large margins. In fact, the difference between total sales and total expenses for May at this plant amounted to slightly over 3 per cent. of the amount charged as expenses, or, roughly speaking, somewhere about 10 cents per can. Actual figures would probably show a larger margin per can, but we have not sufficient information at our command to give anything more than rough approximations. It is interesting to note here too that although the business of the distributor depends to a considerable extent upon the man who delivers the milk, the labor turnover in this plant had amounted to 118 per cent. since January, and with the delivery department, we were informed it was much greater. Men will shift around from place to place and training new ones costs money, so that if

the producer is getting little enough for his milk, the distributor who tries to build up his business of serving the public with milk for its porridge does not make his money without effort.

#### CITY MILK PRODUCER OFTEN A SPECIALIST.

The distributor is midway between the ultimate market and the source of supply. He should know both ends of the game to some extent. He succeeds fairly well too, in as much as he usually manages to pay the producer a little less than the latter believes he should have, and to charge the consumer a little more than he wants to pay. His own profit lies in between somewhere. The consumer will always have to pay more for his milk supply than is paid for cheese, condenser, powder or creamery milk, although there is nevertheless an inter-dependency between them all. Milk being a perishable product, there are limits beyond which it cannot be produced and transported in a fresh condition. Even as it is, the average milk is probably 36 hours old or older before it is used in the city home. Some, of course, is only 24 hours old, and in smaller towns only 12 hours. It is natural, therefore, that many dairymen should take up this special city milk business near all large centres. Very naturally it costs more to produce milk under these conditions; and if people will create a demand for milk production under special conditions, they must also pay. Cows on such dairy farms are generally kept as milk machines, and when the machine wears out it is scrapped. There is often no space or feed to spare for calf rearing. The new machines are brought from others who have raised them from calves and proven that they will produce fairly well at least. If a bull is entire he is often entirely satisfactory. His breed matters not; nor the color of his coat; nor the milk records of his dam. His owner does not want the calves—he only wants milk. This is the frequent policy of the city milk producer working under special conditions, which we are merely stating and not defending. He buys heavily of concentrates and even hay and coarse grains. His profit is made out of the necessity of the city dweller, his ability to choose producing animals and his ability as a feeder. The great bulk of the milk, however, is not produced under conditions quite so specialized. Much of it comes from ordinary mixed farms, and a very large quantity from dairy farms catering to this market, but situated perhaps 100 miles from it and in the midst of other dairy farms supplying cheese factories, creameries, condenseries and milk powder plants. It is the large quantity necessarily secured from mixed or dairy farms some distance away from the city that brings the city milk trade up against conditions in other markets. In one Ontario city recently the city milk producers bargained for a certain price on condition that powder milk did not drop more than so much by a certain date. An ice-cream plant nearby bargained with its patrons for 15 cents more than the city dairy price. The milk powder company dropped its price, and the other two fell likewise. The milk powder factory studied the export market for cheese and butter as well as their own product before its price was set. Condenseries pay what powder plants pay, and vice versa.

#### ORGANIZATION AND ITS PROBLEMS.

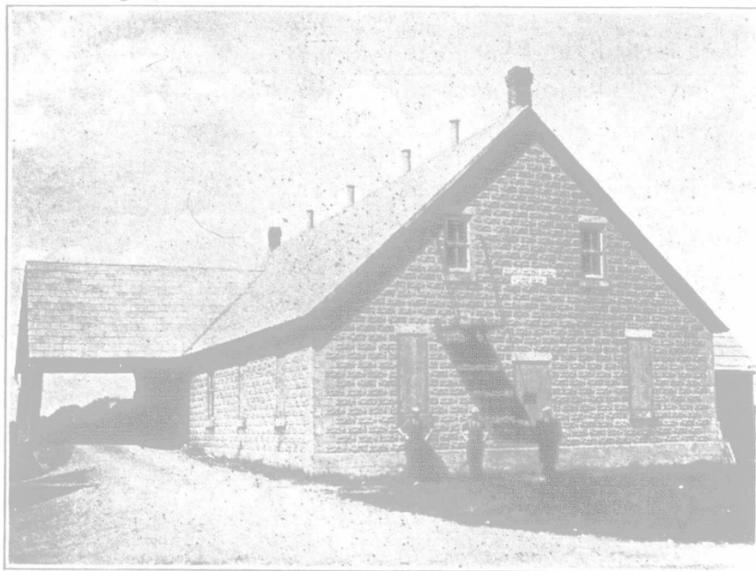
One sees, therefore, how natural it was that city milk producers should have been the first to organize for better prices. They were dealing with a large, immovable section of the public that was, besides, inaccessible, except through an intermediary, the distributor. He often, especially in large centres, was represented by a firm of considerable capital, and the individual producer felt, as he really was in a sense, inconsequential. It was natural that producers for several city markets should join forces so that they could know what each other was doing. Later, when it was realized how great was the inter-dependency noted above, all milk producers were invited to join with them; and so in Ontario to-day we have the Ontario Milk and Cream Producers' Association actively interested in every dairy market. With special reference to the city milk trade there are three great problems which this and other provincial associations can and should tackle. Their successful solution is, however,

first of all dependent upon the active co-operation of all individual milk producers who stand to benefit greatly by merely lending a firm moral support and contributing financially through a nominal membership fee. These problems are: first, the equitable adjustment of milk prices for milk going to different markets; second, the equalization of production in winter and summer; and third, the increasing of milk consumption by those who need its benefits—the people of our towns and cities.

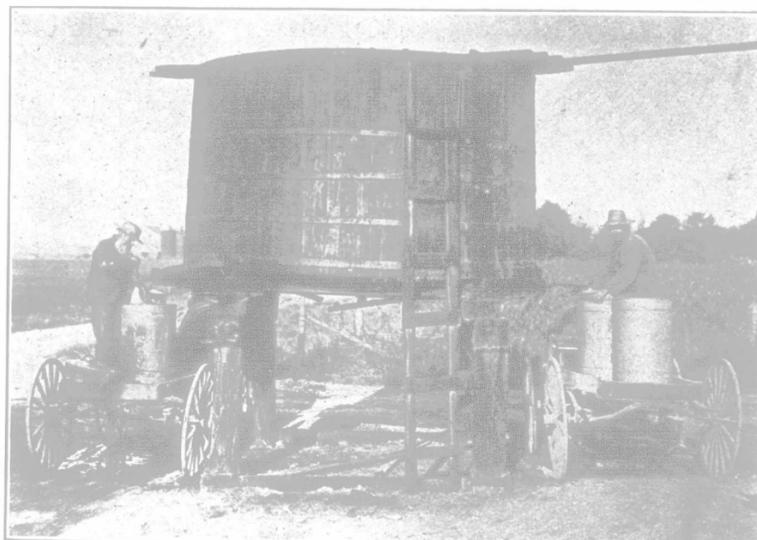
We do not propose to discuss these problems here, except very briefly, for the reason that space does not permit; and also, perhaps, because it is easier to pass on a problem than to solve it. Any problem to be solved must first be studied and with respect to the first, that of equalizing the milk market, we believe the idea of co-operative milk distributing plants outlined in the last preceding article of this series, would at least place producers in a position to study it. Such plants might even go further and, under the guidance of a wise provincial executive, provide the means of equitable price adjustment once the method has been found. The latter might be based upon butter, or cheese, or cost of production figures, and as a matter of interest and record the accompanying table is given with explanatory notes, which should be taken into consideration.

#### SEASONAL VARIATION IN MILK PRODUCTION.

As to the problem of equalizing supply, one thinks of the statement made recently by a large distributor who said that if he kept on during the summer as many patrons as were necessary to meet his requirements during the winter months, he would have a surplus of 1,000 cans per day. The average patron to one distributor's plant in Oxford County has produced an average of practically 60,000 pounds per year for eight years. During the years 1916-1919 an average of 41.2 per cent. of the milk was produced in the months of May, June, July and August, as against 29.5 per cent. during the succeeding four months. Still a lower percentage was produced during the first four months of the year, and if the months of November, December, January and February were taken the percentage would be lower yet. During this present year, one patron who produced 12,847 pounds in February, had climbed to 33,906 pounds in May. Another had produced less than 11,000 pounds in February but rose to 34,760 pounds in May. We have records of five successful Oxford County dairymen who in 1918 produced an average of 139,826 pounds of milk during the year, or an average of 11,668 pounds per month. They had herds averaging 18 cows and by months varied from 5,080 pounds in November, 10,000 pounds in February, and over 17,000 pounds in April, May and June. We are not arguing the practicability of absolutely regulating the monthly milk supply, but there should be a stronger tendency toward winter dairying. Cities require the least raw milk in the hot holiday season and the most in the winter months. The surplus does not bring full price. One Toronto distributing plant is now offering substantial prizes to patrons who will most nearly send the same amount of milk in October, November and December as they are sending in May, June and July. Ottawa producers are paid full price this summer only for an amount of milk equal to the average daily amount supplied during the seven winter months; the remainder goes as surplus milk at a price considerably lower. If a milk distributing plant owned by patrons could do no more it could easily turn this surplus into cheese, butter or cream, and realize some better on it than patrons are now getting. A testimonial to the value of such a plant has just come to hand from the Dairy and Cold Storage Branch, Department of Agriculture, Ottawa. Summing up the experience of the Branch with the Finch Dairy Station, conducted since 1912, when two small cheese factories were purchased and consolidated, Commissioner Ruddick and Geo. H. Barr, Chief of the Dairy Division, say: "The operation of the Finch Dairy Station has demonstrated that it is advisable in many localities, where there is competition for the milk supply for other purposes, to have factories equipped in such a manner as to permit of the manufacture of cheese, butter, or the



The Evergreen Factory in Hastings County is Co-operatively Owned.



The Whey is an Important Factor in Farming in Cheese Districts.

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sale of milk and cream at a moment's notice, in order to take advantage of the best market available. In this way the patrons of the factory are not so likely to be induced to dispose of their milk through other channels." Here, perhaps, is a cue that could well be taken by milk producers' associations, some of whose members have not in the past shown any too great an inclination to "stick."

### Summer Meeting of Southern Counties Ayrshire Breeder's Club.

The annual summer meeting of the Southern Counties Ayrshire Breeders' Club took place on Tuesday, June 29, at Trout Run Stock Farm, the home of Wm. Thorn, Lyndoch, Ont. The morning program consisted of an automobile trip, during which the herds of several members of the Club were inspected by several parties of Ayrshire breeders proceeding to Trout Run Farm from various directions. These parties met at Mt. Elgin, at the farm of Mr. J. L. Stansell, President of the Club, at Simcoe, and at Walnut Lodge Farm, owned by R. J. A. Smith, Vice-President of the Club. Those present took their lunches with them and had an enjoyable time after arriving at Trout Run Farm until about two o'clock, when the educational program of the afternoon was begun. W. F. Stephen, Secretary of the Canadian Ayrshire Breeders' Association, Huntingdon, Que., was present and spoke to the gathering, which numbered about one hundred and fifty. Professor A. Leitch, Department of Farm Management, O. A. C., Guelph, was to have been one of the chief speakers of the day, but found it impossible to be present. Professor H. Barton, Animal Husbandry Department, Macdonald College, Quebec, was present as the principal speaker of the day and to conduct the judging classes. As always, Professor Barton had something of interest to the dairymen present. His remarks were interrupted by a very heavy thunder shower, but after this was over the crowd gathered in the stable and Professor Barton continued his excellent remarks. The speaker was at some pains to emphasize the necessity of a settled policy in the breeding of live stock. "The average man does not know where he is at," said Professor Barton. "I am glad, however, as I visit pure-bred herds from time to time, to note an increasing number of owners who have definite ideas in mind with regard to cattle breeding."

The speaker emphasized size, type, health and production, as the essentials of successful breeding. He complimented the Ayrshire men on the fact that they had always emphasized size but thought that there were too many herds with small cows. Size is imperative in a commercial herd and can only be secured by having it as an established factor in the blood of the foundation animals of the herd, and by "making" it through feeding, care, and careful breeding. It was the opinion of the speaker that of the cows on the herds visited during the morning, those outstanding in all of the herds were the cows with size. Size does not merely mean framework, but scale and substance also, or "much within little." Type also was emphasized, and the Ayrshire breeders were complimented on the fact that there is more type among Ayrshire cattle than among the cattle of most other breeds. The Ayrshire men have more nearly standardized their breed type than other breeds. Type is not a fad or a show-ring fancy, but must be recognized as based on reason and necessity. For this reason the essential principles of dairy type are the same with all breeds. The breeder who has no type of cow fixed in his mind toward which he is constantly working can never become successful, in the broad meaning of the word.

Health also was dwelt on to some extent, and particular reference made to the seriousness of tuberculosis and abortion. The speaker made the statement that many breeders do not want to know the worst, because they are afraid of the numbers of tuberculous animals that might be found in their herds. He recognized that the control of these diseases was a tremendous problem, but knew from experience that they could be kept under control. The only way to gain the upper hand was for each breeder to face the matter boldly and attack it with a definite policy. If either tuberculosis or abortion were present in the herd, the owner should look out for the other diseases. Neither are simple problems, and the speaker was convinced that the presence of one disease in the herd accentuated the development of the other.

Professor Barton emphasized the fact that for the control of tuberculosis the tuberculin test is our only weapon. It may not be infallible but his own experience had proven that it could be made effective. The speaker also believed that breeders should have more knowledge of veterinary problems than they now possess, and a great many veterinarians should know more about live stock problems than they do. To some extent at least our present problems regarding the health of livestock are due to this lack of knowledge on the part of breeders and veterinarians. The man who does not face the problem of live stock diseases in his own herd may in the future have to face it as the result of growing public opinion.

With regard to production, the speaker argued that too much emphasis cannot be laid on the necessity for much more work in cow testing, and the development of official records of performance. At the same time there is more to the question of production than the mere building up of official records. The speaker believed there were cows that will make 20,000 pounds of milk per year and be poor breeders, as well as other cows that will make smaller yearly records but breed offspring that will excel their dams. "We want all the

production of milk we can get," said Professor Barton, "nor should Ayrshire men rest on their oars with regard to the milk test of the Ayrshire cow." There are many cows that will stand improvement in this direction. The speaker thought that there were few really good Ayrshire breeding bulls in Canada, and the same applied with respect to Holsteins in Canada as well as in the United States. The bull is the crux of the whole pure-bred industry, and for the breeder to become successful, he should carry a greater knowledge of Ayrshire lore—that is to say, that knowledge of the Ayrshire breed gathered from the past and present, which makes the breeder fully enthusiastic and acquainted with the characteristics and performances of notable breeders and breeding animals.

Some mention was also made by the speaker of feeding problems. The problem of size and feeding go together, and the Professor gave as his opinion that there are two periods especially, in the life of an animal, when feeding is very important. The one period occurs when the calf is being gotten off to a good start. If a feeder can start a calf off well he has secured one of the keys to the breeding situation, and later, if he is able to feed wisely when the calf has developed into a heifer and is freshening for the first time, he will have successfully passed another critical period in the life of the cow. Feeding well at these periods often implies good feeding methods at other times.

Professor Barton also gave an interesting talk in connection with the judging of a class of dry cows. He emphasized two points in connection with buying cows in this condition. The first was that they are usually in good flesh, and if compared with cows in milk generally present a better appearance. The second was that defects in the udder are often harder to observe than when a cow is in milk, and he instanced the fact that occasionally cows with some udder defect are always shown in a dry class at exhibitions. Taking as illustrations animals that were before him for judgment, Professor Barton pointed out what was meant by substance, dairy character, breediness, capacity, strength and constitution. He discussed these matters from the standpoint of the purchaser, and did so in a very practical way.

### National Dairy Council Working.

A recent letter from the Secretary of the National Dairy Council, Ottawa, calls attention to recent work which has been accomplished in the interest of the dairy industry and the producer. It was pointed out that the new methods of taxation, suggested by the Minister of Finance in his Budget speech, included a tax of one per cent. on all wholesale sales, with certain exemptions. No dairy articles but butter and cheese were included in the list of exemptions, so that under the original proposal, producers who were selling milk and cream wholesale, as well as manufacturers of ice cream, milk powder, condensed and evaporated milk, were subject to this one per cent. tax. We quote the Secretary of the National Dairy Council, as follows: "This Council through its officials at once made representations to members of the Government, Government Officials having charge of matters of taxation, and members of Parliament, to show the injury that might result to the dairy industry if this one per cent. tax was imposed upon certain dairy articles, while other dairy articles and other foods which come in competition with them were exempt from taxation. As a result of our efforts, the Minister of Finance in his final revision of the tax resolution eliminated all dairy articles from the one per cent. tax. This shows the wisdom of having a strong organization ready to take prompt action when its interests are affected".

An estimate is also given with regard to the saving effected in favor of the milk and cream shippers by the

says: "At this time when the Council is asking the milk and cream producers of Canada for 50 cents per year to help with this work, it is well that they should know that they have been saved a total of \$600,000 a year by the work of the National Dairy Council of Canada."

### United Dairymen Hold Successful Auction Sale of Cheese.

The United Dairymen Co-operative Limited, which was organized to sell cheese by auction at Montreal, held their first sale on June 4, and since that time have been steadily gaining ground. At the first sale 13 factories took part with 691 boxes; for the June 11 sale 23 factories contributed 1,377 boxes; in the third sale 31 factories were represented and they sent 1,626 boxes; on June 25 the number of factories had grown to 37, and they sent 2,063 boxes. On Friday last, July 2nd, a total of 2,112 boxes were on sale, and an encouraging feature was the incoming of a Western Ontario factory with 100 boxes of cheese. The prices obtained on July 2 were:

No. 1 colored—784 boxes at 29 $\frac{1}{2}$  cents.  
No. 1 white—935 boxes at 28 $\frac{1}{2}$  cents.  
No. 2 colored—100 boxes at 28 $\frac{1}{2}$  cents.  
No. 2 white—293 boxes at 28 $\frac{1}{2}$  cents.

There has been considerable opposition to the company, but it is hoped that the United Dairymen will, through efficient service to the cheese industry, be able to live it down and become an established link in the selling chain. Naturally some cheese buyers and salesmen would not take kindly to a co-operative enterprise that would curtail their field, and they are using their influence against the organization. There are also two or three cheese exporting firms in Montreal who have not yet honored the company with their support.

The one outstanding commendable feature about the United Dairymen Co-operative Limited is the educational advantages it affords. Cheese is received in storage from individual factories and graded by Government graders in accordance with Government standards. The cheese is then sold according to grade. Each contributing factory receives a certificate detailing the score, and all defects, thus showing where its cheese fell down or excelled, as the case may be. The information concerning the make is helpful, and the grading removes all the disadvantages of pooling, thus permitting the good factories to receive the full value of their product, which does not occur when the strong factories must carry the weak ones. The organization is based on sound principles, and is working out satisfactorily in practice. The business is being managed by W. W. Moore, who was formerly Chief of the Markets Division, Dairy and Cold Storage Branch, Ottawa, and is ably qualified, on account of his ability and experience, to render the industry satisfactory and valuable service in this new co-operative field.

## POULTRY.

### Record of Performance Egg Laying Contests, 1920-21.

In connection with the Record of Performance for poultry, established something over a year ago, the announcement of the second series of egg-laying contests to start November 1, 1920, and to continue for 52 consecutive weeks has now been made. These contests are 10 in number, a Canadian egg-laying contest to be held at the Central Experimental Farm, Ottawa, and one in each of the provinces at a Dominion experimental farm located therein. The following announcement gives full particulars:

The "Canadian" is open to entries from anywhere, the "Provincial" is confined to entries within the province in which it is situated. The entry fee for the Canadian Egg-Laying Contest at Ottawa is \$15.00. The entry fee for all provincial contests is \$5.00. One-fifth of the entry fee must accompany the application, which must be received before August 15th. The balance must be paid upon notification of acceptance of the entry, which will be by September 30th. Should the entry not be accepted, the first payment will be refunded, but should the balance of the entry fee not be received by October 10th, the application will be cancelled and the first payment forfeited. Failure to forward the pen when instructed automatically forfeits the fee and the application is cancelled. All cheques or money orders must be made payable at par in Ottawa and made out to the "Accountant, for Egg-Laying Contests." Entry forms and rules and regulations will be supplied upon application to the Dominion Poultry Husbandman, Central Experimental Farm, Ottawa, or the Superintendent of the Experimental Farm upon which the contest you wish to enter is conducted. Entries must be made direct to the contest you wish to enter along with the first payment before August 15th



The Hen is the Commonest Incubator and Brooder on the Farm.

decision of the Board of Railway Commissioners, respecting the shipment of cream by express and milk in baggage cars. This case was presented for the dairymen by the National Dairy Council, and a careful estimate secured from those who have access to the books of the railway and express companies puts the saving to cream shippers at \$500,000 per year, \$200,000 of which applies East of Fort William. In addition to this amount "the saving to the milk shippers of Canada, due to the Council's success in preventing the railways from getting increased rates on milk in baggage cars, was put at \$100,000 per annum". Concluding, the Secretary

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1920. Each entry or pen shall consist of ten birds of a standard variety, and each bird must be typical of the breed and free from standard disqualifications. Each contestant will be allowed to keep his pen of 10 birds up to strength throughout the contest. In the Canadian Contest two reserves intended as substitutes must accompany the original birds and will be housed with them in the pen. The 10 birds for the original pen must be specified before the contest begins. Further substitution will be allowed as deaths occur. In the Provincial Contests substitutes will be accepted when deaths occur. As the accommodation at each contest is limited, the acceptance of the pens will be influenced by: Whether the entrant breeds the pen entered or not; the number of birds the same strain kept by the owner; the inspector's report of the flock; the time of application. Pens for which application have been received will be inspected between August 15th and September 30th, and those that may be among diseased flocks or in unsanitary conditions will be rejected, and those that do not promise to be mature, or those that may mature too early may be rejected. Each entry of a pen, and each additional entry of a male or female, must be accompanied by a declaration stating that the birds or bird come from a flock that has not been affected with chicken-pox or tuberculosis for at least three months previous. The birds may be banded by the owner with his own bands before shipment, but will be rebanded with sealed contest bands upon arrival at the contest, and the original bands removed. The contest numbers corresponding to owners number will be supplied him. The birds must be delivered at the contest when notified by the management, express prepaid. This will be from the 15th to the end of October. Address the shipping crate plainly with the address of the contest as given in the announcement, and on each crate put your own address which must be the same as the address under which the application was made. The management reserves the right to refuse any entries, to reject and return to the owner, or destroy birds suffering from contagious or infectious disease, or are in any way unsuitable for the contest, to clip the wings of any bird that may be troublesome, to reject all birds that show impurity of breeding or standard disqualifications, and to return to the owner pens from which eggs have not been received by December 15. The owner will be allowed to send after February 15th, a suitable male to mate with his pen, and all eggs from a mated pen from March 1st to May 1st will be shipped to the owner or to any other single address which the owner may designate. The eggs will be shipped once a week in bulk, and only to the one address throughout the two months. All eggs collected that are not cracked or broken will be included in these shipments. As the mating of the pens is optional, it will be noted that in cost of production awards, a proportionate reduction of feed will be made in the pens having a male bird. Eggs so shipped will be charged for at ten cents an egg, and will be shipped, express collect. A bird will accompany each shipment, which must be paid and the empty package returned before the next shipment will be forwarded. The birds while in the contest will receive the best of feed and care, and the system of feeding will be mixed grain in litter morning and evening, and dry mash in a hopper before them all the time. Green feed, grit, shell and beef scrap or green bone will also be supplied. They will be kept in houses having glass and cotton fronts. The contest shall be decided by the total number of marketable eggs laid by each pen. Exceedingly bad-shaped eggs, soft-shelled eggs, or eggs weighing less than 20 ounces to the dozen, will not be given official credit. All eggs laid during the contest become the property of the Department of Agriculture, and those not shipped as breeding eggs will be sold at market prices. A report of the trap-nest weekly record of each bird and weekly and total record of each pen will be issued at the close of each week. Copies of this report along with a monthly summary will be sent to each contestant and to all papers that will publish them. If no notification as to the return of the birds has been received by October 1, 1921, the birds on the completion of the contest will be sent by express collect, to the owner's address from which the shipment was made. Should any of the pens not be laying towards the close of the contest, and not likely to lay before the end, they will be returned earlier so as to make room for birds entering for the next contest. No recognition of sale or transfer of birds during the contest will be made, nor shall any entry be withdrawn during the contest, except for reasons stated above. All birds in the contests not otherwise disqualified and whose eggs average 24 ounces to the dozen, that in 52 consecutive weeks lay 150 eggs, will receive certificate of Record of Performance AA, and those that lay 225 will receive certificate of Advanced Record of Performance AA. While every precaution will be taken, neither the management nor any official of the contest will be held responsible should loss occur. In all cases, the decision of the management shall be final.

## HORTICULTURE.

### Fruit Prospects Good.

The beginning of July finds Canada with good prospects of a satisfactory fruit crop, and it is altogether probable that every province where fruit is grown extensively will have its quota. Reports from the Annapolis Valley, Nova Scotia, are still indefinite as to the volume of the crop, and it is not likely that a very accurate estimate can be given until well on into August. Authorities there still differ considerably in their predictions, but practically all estimates have placed the crop above the million mark. The crop last year was in the neighborhood of one and one-half

million barrels. British Columbia has suffered considerably from a heavy drop, and at time of writing no definite information is to hand concerning the outlook. Ontario has, as yet, nothing to complain of. There is splendid promise of an apple crop, while plums and pears are showing up in great abundance. Peaches will be plentiful in the Niagara District. Taking everything into consideration, it appears that the problems this year will pivot around labor and distribution. A great deal of help will be required to handle the crop and the sugar shortage presents a serious obstacle to the uninterrupted consumption of basket and small fruits. Reports are current of factories which have disposed of their sugar supplies at a profit far in excess of what they could expect from their operations in the factory. The sugar stringency will also be felt in the homes where fruit is usually canned, and the outlook in this regard is none too promising. Everyone interested in the fruit crop should put forth special efforts to keep open the channels of distribution and see to it that no obstacles that can be removed are allowed to block the flow of product into normal consumption.

### Peach Yellows and Little Peach.

During the past, peach yellows and little peach have been sources of much trouble in the peach areas of Canada. Not nearly as much as could be hoped for is still known about these two serious diseases, but the following observations given to "The Farmer's Advocate" by Professor L. Caesar, Provincial Entomologist for Ontario, O. A. C., Guelph, are worthy of note. Professor Caesar's experience in supervising the control of "yellows" and "little peach" through government inspection, together with much observation and several investigations, make his opinions of great value to the fruitmen.

"The first appearance of yellows in Ontario was about the year 1874, and of little peach about 1895. Great outbreaks of yellows seem to have centred around the years 1881 and 1891. Another combined outbreak of yellows and little peach, but chiefly the latter, reached its height about 1911. In that year a new system of training inspectors was introduced, and as a result of the careful work done, the number of diseased trees was decreased from 60,000 in 1911 to fewer than 800 in 1918. The total loss from this outbreak was over one million dollars. Experiments were conducted to determine possible methods of distribution of the disease, and the following results obtained:—

"1. The use of pits from diseased trees apparently is not a factor in distribution; for, though approximately 8 per cent. of such pits, if taken from trees still vigorous but clearly diseased, will grow, yet out of more than 100 seedlings thus obtained, none developed symptoms of disease. All these seedlings were kept for three years, and 13 of them for six years.

"2. Buds from affected trees inserted into healthy seedlings and trees produced disease in the majority of cases, but not in all, the exceptions being possibly due to some of the buds being taken from very vigorous water sprouts. Very few of the budded trees and seedlings—not over 1 per cent.—showed symptoms of disease at the end of 12 months; most of them required from 21 to 24 months, and a few even 34 to 36 months.

"3. Inoculating healthy trees with sap, filtered and non-filtered, from crushed diseased fruit leaves and twigs did not produce disease. (This experiment should be tried again by a different method.)

"4. Rubbing the bark of diseased branches against the bark of healthy trees until both barks were badly ruptured did not produce the disease, even after four years' interval.

"5. The presence for several years of diseased trees in an orchard does not, under some conditions at least, cause the neighboring trees to become diseased, for 5 trees which, as the result of budding inoculation showed, disease clearly in 1914 were kept in the orchard until they were dying, yet up to the present one other tree in the orchard, and this one far removed from the affected trees, has become diseased. Orchard inspection, however, and the experience of the past tend to show that the presence of diseased trees is at times fraught with greater danger, and that their prompt removal is a safeguard against much loss when a general outbreak of either disease occurs."

## FARM BULLETIN.

### Sir Robert Borden Resigns Premiership.

Sir Robert Borden announced definitely at a caucus meeting on July 1 that he intended to resign the Premiership, which he has held since 1911, and stated that he would soon hand his resignation to the Governor-General with a recommendation as to his successor. At the same meeting it was agreed to lay the foundation for a new party to be known as the "National Liberal and Conservative Party." The Prime Minister reviewed the events leading up to Union Government, and the arduous duties imposed by the war. He expressed to the caucus his deep regret at long absence on account of ill-health, and explained the circumstances relating to his own physical condition that rendered retirement imperative. It is expected that new developments will loom up this week, and the Premier will recommend someone to the Governor-General, capable and willing to assume the great responsibility. In the meantime several honorable gentlemen are being kept prominently before the public, among whom are Sir Thomas White, Sir Henry Drayton, Hon. Arthur Meighen, Right Honorable Sir George Foster, and Hon. J. A. Calder.

The platform of the new National Liberal and Conservative Party was agreed upon, and it involves many planks dealing with phases of national life. In regard to the tariff, the caucus agreed to a thorough revision, with a view to the adoption of such reasonable measures as are necessary:

- (a) To assist in providing adequate revenues.
- (b) To stabilize legitimate industries.
- (c) To encourage the establishment of new industries essential to the economic development of the nation.
- (d) To develop to the fullest extent our natural resources.
- (e) To prevent the abuse of the tariff for the exploitation of the consumer, and
- (f) To safeguard the interests of the Canadian people in the existing world struggle for commercial and industrial supremacy.

As a means of raising revenue the tariff should be so adjusted as to place the chief burden upon those best able to bear it. Articles of luxury should be heavily taxed through the imposition of customs and excise rates. Food commodities and other necessities of life not produced or manufactured in Canada should, if taxed at all, bear only such imposts as are necessary for revenue purposes. Those produced in Canada should be subjected to such customs duties only as may be necessary in the general national interest, to be determined after strict investigation from time to time.

The policy relating to agriculture emphasizes co-operation between the provinces, encouragement to production through investigation and experimentation, improvement of live stock, rural credits, improved social conditions in rural communities and an energetic marketing policy.

### Rural Credits for Ontario.

Readers may remember that when the Provincial Legislature was in session, the Honorable Manning W. Doherty asked for a sum of money in the estimates to investigate the question of rural credits for Ontario, pointing out that some system of this kind is needed for the convenience of Ontario farmers and that other provinces, notably Manitoba, had successfully inaugurated similar schemes. The announcement now comes that a committee consisting of Professor W. T. Jackman, Department of Political Economy, University of Toronto; Thomas McMillan, farmer, Seaforth; and Melville H. Staples, farmer, Millbrook. Professor Jackman, according to the report, was for several years in educational work in the United States, and has made a detailed study of rural credits as well as of finance and banking. Thomas McMillan is a well-known Huron County farmer, while Mr. Staples, in addition to being a Durham County farmer, is a graduate of the University of Toronto, and has taken courses in Edinburgh and in Europe, specializing in History and Economics.

The Minister of Agriculture, who made the announcement, is reported as follows:

"I have long felt," said Hon. Mr. Doherty, in making the announcement, "that some system of rural credits would be of much advantage to agriculture in Ontario, but I am convinced that any system adopted should be safe and sound, and should be provided to meet the peculiar needs of this Province. Conditions here differ from the conditions in the newer provinces in the West where rural credit plans have been carried out."

"The committee will be expected to inquire into the different plans adopted, both in the different provinces in Canada and across the line. They will do this both by a study of the legislation, and, to some extent, probably a personal investigation among those farmers who have taken advantage of these schemes. They will also later on probably arrange to meet farmers in various parts of the Province of Ontario so as to get not only full knowledge of the needs, but a complete understanding of the views and desires of the farmers on this subject."

"The inquiry will, of course, include both short-term credits and long-term credits, and will endeavor to work out a system which will provide the facilities for sound agricultural development, and will take into account the banking system and other institutions of the Province which may be affected. The committee will be expected to complete this work this fall, so as to give an opportunity of adopting legislation at the next session of the Legislature as found desirable. It is my desire that any legislation which may be adopted in this Province shall be the most up to date available, and I trust the committee will have the co-operation of the farmers and all other parties interested to accomplish this end."

### Appointments to Board of Commerce.

The Federal Government has made three appointments to the Board of Commerce to fill the vacancies left by the resignations of Judge Robson, W. F. O'Connor and James Murdock. The nature of the new appointments may be gleaned from the fact that the new Chairman is Captain William White, K. C., former Secretary of the Board, and that the other appointees are F. A. Acland, Deputy Minister of Labor and G. A. Dillon, Purchasing Agent of the Department of Justice. It is stated that these appointments are to be regarded as temporary, and they were made by an Order-in-Council passed on the day after prorogation.

# Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending July 1.

Receipts and Market Tops.

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

|                          | CATTLE      |           |             |             |             |             | CALVES      |           |             |           |             |         |
|--------------------------|-------------|-----------|-------------|-------------|-------------|-------------|-------------|-----------|-------------|-----------|-------------|---------|
|                          | Receipts    |           | Top Price   |             | Good Steers |             | 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 (U. S. Y.)       | 7,810       | 5,575     | 4,632       | \$16.25     | \$14.25     | \$17.00     | 1,999       | 1,679     | 1,923       | \$18.50   | \$19.50     | \$17.50 |
| Montreal (Pt. St. Chas.) | 801         | 582       | 861         | 16.00       | 13.75       | 16.50       | 1,355       | 2,061     | 2,379       | 15.50     | 14.50       | 13.50   |
| Montreal (East End)      | 756         | 662       | 1,287       | 16.00       | 13.75       | 16.50       | 1,198       | 1,279     | 2,199       | 15.50     | 14.50       | 13.50   |
| Winnipeg                 | 1,481       | 998       | 1,277       | 15.50       | 14.50       | 17.00       | 250         | 179       | 265         | 17.50     | 14.50       | 17.50   |
| Calgary                  | 677         | 2,637     | 601         | 12.00       | 11.25       | 12.35       | 62          |           | 45          | 13.00     | 10.50       | 14.00   |
| Edmonton                 | 166         | 653       | 325         | 12.25       | 10.50       | 12.00       | 113         | 167       | 98          | 12.50     | 12.00       | 15.00   |

|                          | 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 (U. S. Y.)       | 5,219       | 5,035     | 6,232       | \$20.00     | \$23.25   | \$19.75     | 3,052       | 1,582     | 2,043       | \$19.75   | \$22.00     | \$20.00 |
| Montreal (Pt. St. Chas.) | 1,110       | 3,034     | 1,368       | 21.00       | 22.75     | 20.25       | 922         | 733       | 1,318       | 18.00     | 20.00       | 20.00   |
| Montreal (East End)      | 686         | 1,447     | 1,581       | 21.00       | 22.75     | 20.25       | 794         | 484       | 1,492       | 18.00     | 20.00       | 20.00   |
| Winnipeg                 | 2,037       | 5,164     | 2,907       | 18.50       | 22.50     | 18.50       | 365         | 302       | 318         | 16.50     | 15.00       | 16.00   |
| Calgary                  | 599         | 1,900     | 414         | 18.25       | 21.00     | 17.75       |             | 360       | 740         |           | 13.00       |         |
| Edmonton                 | 435         | 637       | 543         | 17.75       | 21.75     | 17.75       | 67          | 324       | 56          |           | 13.25       |         |

## Market Comments.

Toronto (Union Stock Yards.)

Receipts during the week consisted of 7,166 cattle, 2,174 calves, 3,089 sheep and lambs, and 5,868 hogs. Of the receipts, 62 cattle, 9 calves and 210 hogs and 15 sheep were on through-billing. The strong markets of the two previous weeks and the good pasturage following the late rains combined to bring out a great many unfinished grass cattle, and as a result the market in medium and common grades was dull and sluggish for the entire week. There were over 2,200 more cattle received than during the previous week. The market on Monday opened active on choice and good butcher cattle, and strong prices such as were paid during the previous week were obtained. As soon, however, as choice qualities were picked up trading lagged and the market became dull and draggy. Good bulls and good cows held steady, while unfinished cattle changed hands 50 cents below the opening market prices. Baby-beeves were scarce and commanded good prices, selling up to \$17.00 per hundred. Under a holdover of one thousand cattle Tuesday's market was quiet with prices for quality stuff holding steady, but trading eventually developed a weaker undertone, while poorer grades were still draggy and bidding was 50 cents below Monday's close. Stocker and feeder inquiry was quiet and sales were hard to make. With a few thousand fresh cattle and over fifteen hundred holdovers offered on Wednesday the market opened with good butcher cattle changing hands 25 cents off, under a slow and draggy demand. Scarcity of good stock held prices firm for bulls. Cows were steady in the better grades, but medium and common were down 50 cents to 75 cents; unfinished stock was hard to dispose of at any price, and cows changing hands went at prices 50 cents to \$1 below Tuesday's market, making a drop of \$1.50 to \$2 for the week on all unfinished and poorer grades. Drovers in some cases re-shipped consignments to points of origin rather than hold over until Monday. Although a few dealers anticipated a market on Friday, there were about eight hundred cattle unsold. Stockers and feeders were quiet with prices about \$1 below the previous market as the country demand is limited, speculators are not stocking up to any extent. Most of the good heavy steers sold from \$15 to \$16. The top price of the week was paid on a load of twenty steers which averaged 1,240 pounds and sold at \$16.25. Good butchers steers moved generally from \$14.75 to \$15.75 with a few individual sales going to \$16.25. Choice light butchers were in good demand and sold from \$14.50 to \$15.50 for the better classes and \$10.25 to \$14 for the medium grades. Butcher heifers sold well and changed hands from \$14.25 to \$15.25 for choice and from \$12.25 to \$14 for medium grades. Cows held steady at prices ranging from \$12 to \$13 for choice and \$9.50 to \$12 for medium butchers. Bulls were scarce and were quickly picked up from \$11.50 to \$12.50 for good killers and \$9 to \$11 for the common kinds. Canners and cutters held about steady at prices ranging from \$15 to \$17. The calf market for the week was cleaned up at steady prices, the top for the week being \$18.50

## TORONTO

| CLASSIFICATION    | No.   | Avg. Price | Price Range Bulk Sales | Top Price |
|-------------------|-------|------------|------------------------|-----------|
| STEERS            |       |            |                        |           |
| heavy finished    | 248   | \$15.25    | \$15.00-\$16.00        | \$16.00   |
| good              | 687   | 15.00      | 14.75-15.75            | 16.25     |
| 1,000-1,200       |       |            |                        |           |
| STEERS            |       |            |                        |           |
| good              | 1,662 | 15.00      | 14.50-15.50            | 17.00     |
| 700-1,000         | 141   | 12.00      | 10.25-14.00            | 14.00     |
| HEIFERS           |       |            |                        |           |
| good              | 953   | 14.50      | 14.25-15.25            | 15.75     |
| fair              | 557   | 13.00      | 12.25-14.00            | 14.50     |
| common            | 107   | 10.25      | 9.25-11.00             | 11.00     |
| COWS              |       |            |                        |           |
| good              | 689   | 12.50      | 12.00-13.00            | 13.50     |
| common            | 1,475 | 11.00      | 9.50-12.00             | 12.00     |
| BULLS             |       |            |                        |           |
| good              | 122   | 12.00      | 11.50-12.50            | 13.75     |
| common            | 62    | 10.00      | 9.00-11.00             | 11.00     |
| CANNERS & CUTTERS | 241   | 6.00       | 5.00-7.00              | 7.00      |
| OXEN              |       |            |                        |           |
| CALVES            |       |            |                        |           |
| veal              | 1,999 | 16.00      | 15.00-16.50            | 18.00     |
| grass             |       |            |                        |           |
| STOCKERS          |       |            |                        |           |
| good              | 253   | 11.50      | 11.00-12.00            | 12.00     |
| fair              | 156   | 9.00       | 8.00-10.00             | 10.00     |
| FEEDERS           |       |            |                        |           |
| good              | 427   | 12.50      | 12.00-13.00            | 13.00     |
| 800-1,100         | 30    | 11.00      | 10.00-12.00            | 12.00     |
| HOGS              |       |            |                        |           |
| (fed and watered) |       |            |                        |           |
| selects           | 4,560 | 19.75      | 19.50-20.00            | 20.00     |
| heavies           | 40    | 18.75      | 18.50-19.00            | 19.00     |
| lights            | 343   | 17.75      | 17.50-18.00            | 18.00     |
| sows              | 271   | 15.50      | 14.00-17.00            | 17.00     |
| stags             | 5     |            |                        |           |
| LAMBS             |       |            |                        |           |
| good              | 1,461 | 18.75      | 18.50-19.50            | 19.75     |
| common            | 25    | 17.00      | 16.00-18.00            | 18.00     |
| SHEEP             |       |            |                        |           |
| heavy             |       |            |                        |           |
| light             | 1,184 | 11.50      | 11.00-12.00            | 13.00     |
| common            | 382   | 8.00       | 7.00-9.00              | 9.00      |

## MONTREAL (Both Yards)

| No.   | Avg. Price | Price Range Bulk Sales | Top Price |
|-------|------------|------------------------|-----------|
| 34    |            |                        |           |
| 158   | \$15.25    | \$14.60-\$15.75        | \$16.00   |
| 123   |            |                        |           |
| 98    | 14.00      | 13.00-15.00            | 15.50     |
| 146   | 12.50      | 10.50-13.00            | 13.00     |
| 49    | 13.50      | 12.00-14.50            | 15.00     |
| 62    | 10.00      | 9.00-11.00             | 11.00     |
| 178   | 8.00       | 6.00-8.50              | 8.50      |
| 62    | 10.75      | 10.00-11.00            | 12.00     |
| 365   | 7.75       | 6.50-8.50              | 9.00      |
| 16    | 10.50      | 10.00-11.00            | 11.50     |
| 135   | 7.50       | 6.00-9.00              | 9.00      |
| 124   | 5.00       | 4.50-5.50              | 5.50      |
| 7     |            |                        |           |
| 2,430 | 10.00      | 7.00-12.00             | 15.50     |
| 57    | 7.50       | 7.00-8.00              | 8.00      |
| 953   | 21.00      |                        | 21.00     |
| 255   | 18.00      | 17.00-19.00            | 19.00     |
| 177   |            |                        |           |
| 397   | 16.75      | 16.50-17.00            | 17.00     |
| 14    |            |                        |           |
| 445   | 16.00      | 15.00-17.00            | 18.00     |
| 301   |            |                        |           |
| 85    |            |                        |           |
| 83    | 9.10       | 9.00                   | 10.00     |
| 802   | 8.00       | 8.00                   | 9.00      |

for the very choice stock and from \$15 to \$16.50, for good stock. The sheep market was steady, heavy sheep selling from \$5 to \$8, and light ewes from \$8 to \$10. Yearlings were in good demand and passed over the scales from \$11 to \$12. Lambs held steady and sold generally from \$18.50 to \$19.50 for choice and from \$16 to \$18 for common. The hog market opened strong at \$19.75 per hundred for selects, fed and watered, and closed at \$20 on Monday; trading remained strong at that price throughout the week. The total receipts from January 1 to June 24, inclusive, were 139,207 cattle, 46,732 calves, 167,869 hogs and 25,518 sheep, compared with 144,688 cattle, 34,344 calves, 182,466 hogs and 32,106 sheep received during the corresponding period of 1919.

**Montreal.** There was a very slow and heavy market throughout the week. On Monday morning a few loads of good cattle were weighed up at prices 25 to 50 cents lower than those paid during the previous week. Later in the day business slowed up and it became very difficult to dispose of even good cattle. One load of heavy steers was shipped to Albany, New York State, on Tuesday owing to lack of interest on the local market. Cattle were left unsold each day through-

out the week and a number of loads were held over until the next Monday's market. Sales were made at prices ranging from \$3.50 to \$4 for the very poorest canners to \$16 for a few selected steers and some baby-beeves. The one thing that was clearly demonstrated throughout the week is that at present packers do not want and are not willing to buy many thin, common cattle. Light yearling bulls and thin young heifers were sold as low as \$5 and \$5.35 per hundred, thin bulls weighing up to ten hundred pounds sold at \$7.50 and an odd choice bull sold up to \$11.50. Cows sold within the same range as bulls, although an odd sale was made up to \$12. What good cattle were disposed of brought prices ranging from \$13.50 to \$15.75, with an extreme top of \$16. Calves were slow sellers also. One lot of ten calves averaging 150 pounds brought \$15.50, a few lots brought \$13 to \$13.50, but practically all the calves were sold for \$12 or under, \$11 being the most common price for good calves, while very thin calves from the East were sold down to \$6. Sheep and lambs were easier. Lambs were most generally sold at \$17 for good and from \$15 to \$16 for poorer lots. Some lambs averaging thirty five pounds brought \$13; sheep moved from \$6 to \$10, good sheep selling mostly around \$9. There was a better percentage of hogs suitable for local and shop trade and some

quite even lots. The prices for these was \$21 off cars. Sows were \$4 per hundred less than the lots they were shipped in and mixed lots of sows, heavies, roughs, and selects brought from \$17 to \$19 per hundred.

**Pt. St. Charles.**—The total receipts from January 1 to June 24, inclusive, were 14,703 cattle, 40,898 calves, 31,618 hogs and 8,897 sheep; compared with 14,883 cattle, 39,755 calves, 35,445 hogs and 7,953 sheep, received during the corresponding period of 1919.

**EAST END.**—The total receipts from January 1 to June 24, inclusive, were 16,367 cattle, 32,708 calves, 21,646 hogs, and 8,181 sheep; compared with 16,917 cattle, 28,903 calves, 19,386 hogs and 8,425 sheep, received during the corresponding period of 1919.

### Cheese Markets.

On Saturday last the Brockville Board registered 4,320 boxes of white and colored, and 29 cents was the selling price. At Kingston 846 boxes sold at 28 13/16 cents. On Friday last the United Dairy-men Co-operative Limited, at Montreal, sold No. 1 colored at 29 3/8 cents; No. 1 white at 28 3/4 cents; No. 2 colored at 28 3/8 cents, and No. 2 white at 28 3/4 cents.

**Buffalo.**

**Cattle.**—Cattle market opened up at Buffalo the past week with good prices generally—being out of line with other markets, in that values were considered quite a lot higher—but with the last half of the week conditions changed to a weaker trade, as the result of which from a quarter to a half dollar lower price list than for the first part of the week prevailed. Among the week's offerings was a string of about as good, if not the best, weighty, prime finished steers had on the local market this year, best of which (natives) sold up to \$17.50 to \$17.75, with the best Canadians ranging from \$15.50 to \$16.25. Yearlings made \$16.25, best handy steers sold around \$15.40, a few eleven-hundred kinds, that were good, up to \$16 to \$16.25. Best butchering heifers sold generally from \$12 to \$13, a medium and fair kind running from \$9 to \$10. Canners and cutters showed a general range of from \$4 to \$5. Bulls showed very few of the topky kinds running from \$10 to \$10.50, but a lot of medium and common grassy grades, which were very slow sale. Stocker and feeder trade was very weak, and only the very best dairy cows were wanted. Offerings for the week totaled 5,025 head, as against 5,850 head for the previous week, and as compared with 5,550 head for the corresponding week a year ago.

**Quotations:**

Steers, Canadians.—Best, \$15.50 to \$16.25; fair to good, \$14.50 to \$15; common and plain, \$12 to \$12.50.

Butchering Steers.—Yearlings, good to prime, \$15 to \$17; choice heavy, \$16 to \$16.50; best handy, \$15 to \$15.50; fair to good, \$13.50 to \$14.50; light and common, \$10 to \$12.

Cows and Heifers.—Heavy heifers, \$13 to \$15; best butchering heifers, \$13 to \$13.50; good butchering heifers, \$11 to \$11.50; fair butchering heifers, \$8 to \$9.50; light, common, \$7 to \$7.50; very fancy fat cows, \$10.50 to \$11; best heavy fat cows, \$10 to \$10.50; medium to good, \$9 to \$10; cutters, \$5 to \$5.50; canners, good, \$4 to \$4.50.

Bulls.—Best heavy, \$10 to \$10.50; good butchering, \$8.50 to \$9; sausage, \$8 to \$8.50; light bulls, \$6 to \$7.50.

Stockers and Feeders.—Best feeders, \$9.50 to \$10; common to fair, \$8 to \$9; best stockers, \$8 to \$8.50; fair to good, \$7.75 to \$8.25; common, \$6 to \$7; grazing cows, \$7.50 to \$8.

Hogs.—Market held up the first half of the past week, but after Wednesday prices were on the decline. Monday medium and heavy grades sold from \$16.75 to \$17, light hogs brought from \$17 to \$17.25, and most of the pigs moved at \$15.50. Tuesday light hogs reached \$17.35, heavies ranged down to \$16.60, with pigs selling from \$15 to \$15.50, and Wednesday top was \$17.50, with pigs landing mostly at \$15.40. Thursday's trade was unevenly lower, top being \$17.40, though general range on light hogs was from \$17 to \$17.25, some heavy mixed went at \$16.75, and pigs moved at \$15.50. Friday prices were off 25 to 40 cents, light grades bringing from \$16.75 to \$17, heavies ranged on down to \$16.25 and buyers got pigs as low as \$15. Roughs brought around \$13, and stags \$8 to \$10. Receipts for the week totaled 19,500 head, as compared with 24,792 head for the week before, and 12,405 head for the same week a year ago.

Sheep and Lambs.—Sheep and lamb receipts were exceedingly light again the past week, grand total being 4,700 head, as compared with 5,544 head for the week previous, and 2,980 head for the corresponding week a year ago. Demand was light, and while prices ruled steady all week trading was slow. Spring lambs on the tippy order sold from \$16 to \$17, with the cull grades ranging from \$12 down, and best yearling lambs sold from \$12 to \$13. Top wether sheep were quoted from \$8.50 to \$9, and best ewes, which made up most of the sheep receipts, ranged from \$7 to \$7.75, few up to \$8.

Calves.—The past week opened with top native veals selling at \$17, and culls ranged from \$15 down. Tuesday the bulk brought \$17.50, Wednesday trade was steady with Tuesday, and Thursday and Friday best natives moved at \$17, with culls selling largely from \$14 down. Several decks of Canadians were here the past week, and as a rule they sold fifty cents to a dollar under the natives. The receipts for the week were 6,600 head, the week before there were 6,630 head, and for the same week a year ago 3,311 head.

**Toronto Produce.****Breadstuffs.**

Manitoba Wheat.—No. 1 northern, \$3.15; No. 2 northern, \$3.12; No. 3, northern, \$3.08.

Ontario Wheat.—F. o. b. shipping points, according to freight; No. 1 winter, \$2 to \$2.01; No. 2 winter, \$1.98 to \$2; No. 3 winter, \$1.92 to \$1.93; No. 1 spring, \$2.02 to \$2.03; No. 2 spring, \$1.98 to \$2.01; No. 3 spring, \$1.95 to \$2.01.

Barley.—Malting, \$1.87 to \$1.89.

Buckwheat.—No. 2, nominal.

Peas.—No. 2, nominal.

Rye.—No. 3, nominal.

American Corn.—Prompt shipment, No. 3 yellow, \$2.30, nominal.

Ontario Oats.—No. 3 white, nominal; according to freights.

Manitoba Flour.—Toronto, Government standard, \$14.85, in cotton bags.

Ontario Flour.—In jute bags, prompt shipment, Government standard, \$12.90, nominal, Montreal and Toronto.

Hay.—Track, Toronto, No. 1, \$31; mixed, \$27. Straw.—Car lots, \$15 to \$16.

Millfeed.—Car lots, delivered Montreal freights, bags included: Bran—per ton, \$52; shorts, \$61; good feed flour, per bag, \$3.75 to \$4.

**Hides and Skins.**

Hides, f. o. b., country points.—Beef hides, flat cure, 10c. to 12c.; green hides, 9c. to 11c.; deacon or bob calf, 75c. to \$1.25; horse hides, country take-off, \$5 to \$6; No. 1 sheep skins, \$1.50 to \$2.25; yearling lambs, 75c. to \$1; horse hair, farmer's stock, 38c.

City Hides.—City butcher hides, green, flats, 15c.; calf skins, green flats, 20c.; veal kip, 15c.; horse hides, city take-off, \$5 to \$6.

Tallow.—City rendered, solids in barrels, 11c. to 12c.; country solids in barrels, No. 1, 10c. to 11c.; cakes No. 1, 13c. to 14c.

Wool.—Unwashed, coarse, 18c.; medium, 20c.; fine, 25c.

**Farm Produce.**

Butter again advanced in price on the wholesales, fresh-made creamery pound prints selling at 61c. per lb., and solids at 60c. to 61c. per lb.; choice dairy bringing 50c. to 52c. per lb.

Eggs.—The egg market was also slightly firmer, No. 1 new-laid selling at 54c. to 55c. per doz., and selects at 55c. to 58c. per dozen, wholesale.

Cheese kept stationary in price with the old selling at 35c., and new at 32c. per pound, wholesale.

Pure lard and shortening were a steady trade at unchanged prices, wholesale selling respectively as follows: Tierces, 28½¢ and 26c. per lb.; 50-lb. tubs, 29c. and 27c.; pound prints, 30c. and 28c.

**Wholesale Fruits and Vegetables.**

Strawberries came in fairly freely some days and were shipped lightly on others, prices varying according to quantity and quality, ranging from 15c. to 25c. per box; the bulk selling around 20c. per box.

Cherries.—Shipments are gradually increasing, but they have mostly been of poor quality, and have been a decidedly slow sale, as apparently buyers were not ready for them. Sours sold at 50c. to \$1 per six quarts and \$1 to \$1.50 per 11 quarts, and sweets at 60c. to \$1.50 per 6 quarts, and \$1.25 to \$3 per 11 quarts. Some really choice blacks bringing \$3.50 to \$4 per 11 quarts.

Gooseberries came in in small quantities, selling at \$1 to \$1.50 per 6-qt. basket, according to quality.

Tomatoes.—Hot-house declined in price; No. 1's selling at 30c. to 35c. per lb., and No. 2's at 25c. per lb.

Asparagus continued to be shipped in lightly, and sold at \$2 to \$3 per 11-qt. basket, according to quality.

Beets came in in larger quantities and declined in price, selling at 30c. to 50c. per dozen bunches.

Carrots are beginning to come in, but are very small, selling at 50c. per dozen bunches.

Cabbage came in much more freely and sold at lower prices, namely, \$7 to \$7.50 per large crate, and \$3.50 per bushel hamper.

Cauliflower only came in in small quantities, and sold at about stationary prices; \$2.50 per 11-qt. basket, and \$5 per crate.

Peas increased in quantity and declined in price, selling at 50c. to 75c. per 6-qt. basket, and \$1 to \$1.50 per 11-qt. basket.

Potatoes firmed slightly; No. 1's selling at \$14.50 to \$15 per bbl.; graded No. 2's

at \$12, and ungraded at \$9 per bbl.; old ones are practically off the market, the few offered selling at \$5.50 per bag.

**Montreal.**

Horses.—Dealers continued to report a dead market for horses, declaring that they are doing nothing. However, they report prices as unchanged from week to week. These are: Heavy draft horses, weighing 1,500 to 1,600 lbs. each, \$250 to \$300 each; light draft, 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, \$150 to \$200 each; culls, \$100 to \$125, and fine saddle and carriage animals, \$175 to \$250 each.

Dressed Hogs.—The market for dressed hogs showed a firm tone last week, and prices were quoted about ½¢ higher, being 29½¢ per lb. for fresh-killed, abattoir-dressed hogs.

Poultry.—Cold store stock continued at 53c. to 54c. per lb. for turkeys, and 38c. to 40c. for chickens, but otherwise there was no general interest in the market, although, as may be supposed, there is always some small trading in fresh stock.

Potatoes.—The arrival of American new potatoes had but slight effect upon the market for old Canadian stock, the former too scarce and dear to come into active competition. This situation is apt to alter to some extent in the near future. Meantime, Quebec white potatoes were quoted in a wholesale way at \$5.25 to \$5.50 per bag of 90 lbs., ex-store, car lots being quoted at 75c. under this price.

Maple Products.—Prices for maple products showed little change, being \$2 per gal. for syrup in wood, and \$2.25 in tins. Sugar was 26c. to 28c. per lb.

Eggs.—The market for eggs was on the firm side, and select fresh eggs were quoted at 58c. per lb., No. 1 fresh being 54c., and No. 2 fresh 48c. to 49c. per lb. Demand was good all round.

Butter.—Production of butter continues fairly large, and recent rains have had a beneficial effect upon the pastures. Prices showed little change, being 58½¢ to 58¾¢ per lb. for pasteurized creamery, 57c. to 57½¢ for finest, and 56c. to 56½¢ for fine.

Cheese.—At the auction of cheese, prices ranged from 28½¢ to 28¾¢ per lb. for white specials and white No. 1, respectively, while No. 2 brought 27½¢, and No. 1 colored 28 9/16c.

Grain.—No. 2 Canadian Western oats were \$1.48 per bush. to \$1.50; No. 3 are \$1.47 to \$1.49; No. 2 feed, \$1.46 to \$1.48, ex-store.

Flour.—Car lots of Manitoba spring wheat flour were quoted at \$14.85 per bbl., in jute bags, ex-track, Montreal freights for shipments to country points, and the same to city bakers with smaller lots at an advance of 10c. per bbl., and a discount of 10c. for spot cash.

Millfeed.—Bran in broken lots mixed, with flour, was quoted at \$55.50 per ton, in bags, while shorts were \$62.50. Without flour, about \$3 more per ton can be obtained. Car lots were about \$54.25 for bran, and \$61.25 for shorts.

Baled Hay.—Some shipments were going on to the United States. The market was firm and prices were \$29 to \$30 per ton for baled hay, No. 2; \$27 to \$28 for No. 3 timothy; and \$25 to \$26 for clover mixed, ex-track.

Hides.—Prices of hides were up 2c. per lb. Steer and cow hides were 16c. per lb., bull being 12c., and calf skins 22c. to 24c. per lb., while kips were 16c. per lb. Lamb skins were up to 50c., and kips to 50c. each. Horse hides were \$5 each.

**Chicago.**

Beef steers strong to 25c. higher; top, \$16.35; bulk native, \$13 to \$16; she stock more active, mostly steady; some sales higher; bulk fat cows, \$7 to \$10.50; bulk canners, \$4.25 to \$4.75; bulls, steady to lower; bulk Bologna, \$6 to \$7; calves, 50c. lower; bulk, \$11 to \$12.50; stockers slow, steady, bulk, \$11 to \$12.50.

Hogs.—Mostly 35c. to 40c. lower; better grades off most; top early, \$16.25; bulk light, and light butchers, \$15.75 to \$16.10; bulk, 250 pounds and over, \$14 to \$15.60; pigs, 25c. to 50c. lower; bulk of desirable kinds, \$13 to \$13.75.

Sheep.—Lambs mostly \$1 lower; sheep, 50c. lower; top native lambs \$15; bulk good yearlings, \$11.25; choice Idaho ewes, \$7; bulk native ewes, \$5.50 to \$6.

**Monday's Live Stock Market.****Dominion Market Service.**

Canadian markets are being flooded with a surplus of light, unfinished cattle, and shippers should take warning. The market has already taken a severe drop and a serious break may occur if shippers persist in unloading light, unfinished cattle at this time.

Toronto, July 5. Cattle.—Receipts, 4,473. With large receipts and a thousand cattle held over from last week's market opened very draggy, and was 75 cents lower in all butcher classes. Good bulls are scarce and market 50 cents lower. Cows are one dollar lower. All classes of light and unfinished cattle are one dollar below last week's close, making a drop of \$3 since last Monday, June 28. There was nearly seventy-five per cent. unfinished cattle in to-day's receipts, and are hard to dispose of at any price. Quotations: Heavy beef steers, \$13.50 to \$15; butcher steers, choice, \$14 to \$15; good, \$12 to \$14; medium, \$10.50 to \$11.50; common, \$8 to \$10. Butcher heifers, choice, \$12.25 to \$14.75; medium, \$10 to \$13; common, \$8 to \$10. Butcher cows, choice, \$10.75 to \$12.25; medium, \$8 to \$10. Canners and cutters, \$4 to \$6. Butcher bulls, good, \$10 to \$12; common, \$7 to \$9.50. Feeding steers, good, \$10 to \$11.50; fair, \$8.75 to \$10. Stockers, good, \$8 to \$10.50; fair, \$6 to \$8.

Calves.—Receipts, 1,275. The calf market was sixty cents to one dollar lower, calves moving slowly. Prospects are for lower prices. Quotations: Choice, \$15 to \$17; medium, \$12 to \$15; common, \$9 to \$11.50. Milch cows, choice, \$120 to \$150. Springers, choice, \$70 to \$115. Sheep.—Receipts, 1,509. The sheep market was steady with good demand. Lambs were weaker at \$1 drop, with fair demand for medium quality and good demand for choice. Quotations: Ewes, \$8.50 to \$9.50; lambs, \$16 to \$17; yearlings, \$10.

Hogs.—Receipts, 2,567. The hog market was weak, with price holding at 20 cents. Prospects are for a drop of 25 cents. Quotations: Fed and watered, selects, \$20; lights, \$18; heavy, \$19; sows, \$15 to \$17.

Montreal, July 5. Cattle.—Receipts, 1,035. About 25 per cent. of the cattle on sale were on the market since last week. Trade was slow, but it is evident that all the cattle will be sold to-day. There are no cattle of as good quality as usual. The highest price to-day is \$15; fat cows sold up to \$11.25. There were no good bulls. Packers are offering down to \$3 for very thin canners. The market is still very slow, and does not warrant much increase in shipments at present. Quotations: Butcher steers, good, \$13 to \$15; medium, \$11 to \$12; common, \$8 to \$11. Butcher heifers, choice, \$12 to \$14; medium, \$10.50 to \$12; common, \$6 to \$10. Butcher cows, choice, \$10 to \$11.25; medium, \$6 to \$9; canners, \$3 to \$4.50; cutters, \$5 to \$6. Butcher bulls, common, \$5 to \$9.

Calves.—Receipts, 1,586. The quality was poor and the market weak. Quotations: Good veal, \$10 to \$12; medium, \$5 to \$9; grass, \$6 to \$8.

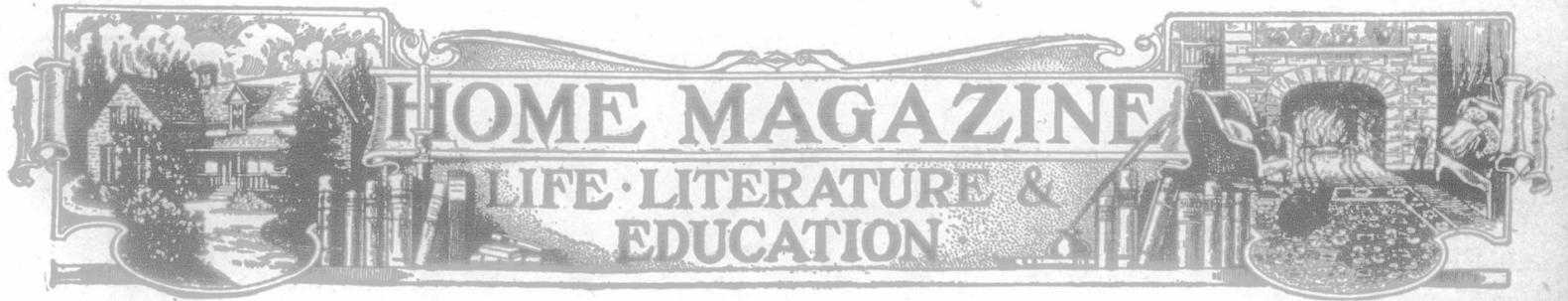
Sheep.—Receipts, 1,313. Quotations on sheep and lambs lower. Very common sheep and lambs from the East down to \$6 and \$12. Quotations: Ewes, \$6 to \$9; lambs, good, \$15; common, \$12 to \$14.

Hogs.—Receipts, 1,397. Sales of selects have been made at last week's figures. Mixed lots a little stronger at from \$18 to \$20. Quotations: Off car weights, selects, \$21; sows, \$17.

Buffalo, July 5. Cattle.—Receipts, 2,800. Market slow and cattle selling from a quarter to a half-dollar lower than Friday.

Hogs.—Hog receipts were 6,500, with heavies selling at \$16 to \$16.50; lights, \$16.75 to \$16.90. Twenty-four hundred sheep were on the market. Choice lambs brought \$15.75 to \$15.90; best ewes, \$7 to \$7.50. There were 2,000 calves, with tops going at \$15.50.

An American visiting London, and goaded to desperation by the incessant necessity for tips, finally entered the bathroom of his hotel, only to be faced with a large notice which read: "Please tip the basin after using." "No!" said the Yankee, turning on his heel. "I'll go dirty first."



Stock  
Service.  
being flooded  
cattle, unfinished  
warning. The  
drop  
shippers  
cattle

Receipts,  
and a thousand  
week's market  
was 75 cents  
Good bulls  
cents lower.  
All classes of  
one dollar  
making a drop  
June 28. There  
per cent. un-  
receipts, and  
at any price.  
steers, \$13.50  
\$14 to \$15;  
\$10.50 to  
\$10. Butcher  
\$14.75; medium,  
\$10. Butcher  
\$12.25; medium,  
cutters, \$4 to  
\$1, \$10 to \$12;  
Feeding steers,  
\$8.75 to \$10.  
\$0.50; fair, \$6 to

The calf  
to one dollar  
Prospects  
Choice, \$15;  
common,  
choice, \$120  
\$70 to \$115.  
The sheep  
good demand.  
drop, with fair  
and good  
Ewes, \$6 to \$17; year-

The hog mar-  
holding at 20  
a drop of 25  
and watered,  
\$19; sows,

Receipts,  
of the cattle  
since last  
it is evident  
sold to-day.  
good quality as  
to-day is \$15;  
There were  
offering  
canners. The  
and does not  
shipments at  
steers, good,  
\$12; common,  
choice, \$12  
\$12; common,  
choice, \$10  
\$9; canners,  
\$6. Butcher

The quality  
weak. Quota-  
\$12; medium,

Quotations  
Very com-  
the East down  
Ewes, \$6 to  
common, \$12 to

Sales of  
at last week's  
stronger at  
Off car  
\$17.

Receipts,  
cattle selling  
lower than

6,500, with  
\$16.50; lights,  
four hundred  
Choice lambs  
best ewes, \$7  
calves, with

London, and  
the incessant  
entered the  
to be faced  
read: "Please  
"No!" said  
heel. "I'll

**To a Butterfly.**

I've watched you now a full half hour,  
Self-poised upon that yellow flower;  
And, little Butterfly! indeed  
I know not if you sleep or feed.  
How motionless! Not frozen seas  
More motionless! And then  
What joy awaits you when the breeze  
Hath found you out among the trees,  
And calls you forth again!  
This plot of orchard ground is ours;  
My trees they are, my Sisters' flowers;  
Here rest your wings when they are  
weary;  
Here lodge as in a sanctuary!  
Come often to us, fear no wrong;  
Sit near us on the bough!  
We'll talk of sunshine and of song,  
And summer days, when we were young;  
Sweet childish days, that were as long  
As twenty days are now.  
—WILLIAM WORDSWORTH.

**As Cool as You Can.**

HOW to keep as cool as you can when  
the days are blistering hot—that is  
a question that concerns us all during  
several weeks of almost every year.  
We should try to find the answer to it,  
too, for, leaving the little matter of  
comfort out of consideration, we work  
better when we are reasonably cool.

**Build for Coolness.**

The coolest house, of course, is the one  
that is built with an eye to that end. A  
masonry house, for instance, is usually  
cooler than a frame one; yet a frame  
one may be kept more or less heat-proof  
by building it with an air-space (building-  
paper or building-felt each side of the  
space) in all of the walls. Such walls are  
good to keep heat in as well as out. In  
other words they are insulated, and so  
keep a house cool in summer, warm in  
winter, all depending upon whether  
the more heat is outside or inside.

Again, the coolest house is the one  
which has windows in two walls of every  
room; a room with a row of windows  
along one side is always as hot as Tophet,  
unless some extra ventilation arrange-  
ment has been provided. To be comfort-  
able in hot weather we need to have the  
air moving about our faces and a cross  
current of air must somehow be secured.  
Large windows are, of course, better than  
small ones, and casement windows best  
of all so far as ventilation is concerned.  
Some object to having many, or large  
windows because of the "cold in winter,"  
but there is no trouble about this if the  
casings are tight and double windows  
(which are made to swing outward at  
the bottom for ventilation) are provided.  
In time, no doubt, we shall build houses  
such as the Californians do, houses  
redolent of sunshine, and fresh air,  
and landscape pictures from every window  
—and we shall defy old winter at the  
same time.

But even a house that has ordinary  
windows may be made much cooler if  
one remembers one principle of heat,  
viz. that it always rises. This, then,  
suggests that the tops of the windows  
be let down, while the lower sash is raised.  
This always produces an ascending  
current of air and makes a room cooler.  
The windows may be kept shut and the  
blinds down during the very hottest  
part of hot days, but don't forget that  
sunshine is the very best disinfectant;  
it must not be too persistently kept out.  
While the rooms are shut up in this  
way don't stay in them; stay out on the  
porch or under a tree, and take your  
work with you—if you have to work  
while old Sol is at his worst. You can  
sew, or pare potatoes, very well under  
a tree.

If there is an attic in your house  
a splendid idea is to open its window or  
windows, then leave the attic door and  
all doors below open. This arrangement

acts like a chimney—the hot air moves  
upward and a gentle circulation takes  
place all through the house. Many a  
sleepless night can be avoided by this  
simple expedient. In some houses  
an extra ventilating flue is put in the  
chimney with an opening into the attic  
and a register in the second story ceiling.  
If there is no attic the ventilating opening  
from the flue may be high in the second  
story wall. Even a trap-door in the roof,  
with another in the ceiling of the room  
below, is effective,—anything at all  
that will permit the heated air to move  
upward and outward instead of lying  
like a dense cake of heat in the rooms.  
Often the low roof of a second story  
can be corrected by putting in a ventila-  
tor (which can be closed in winter) to let  
out the hot air that accumulates when  
the hot air strikes the roof. Always the  
house with an attic, provided with  
windows at each end, is cooler than the  
house that has no attic. When the  
attic is omitted a wide air-space, with  
ventilators, should be provided.

A fireplace with the damper left  
open is a good ventilator, even when  
there is no fire on. French doors (glass  
double doors) are also good, and so are  
awnings over the windows, which keep  
out the hot rays of the sun yet permit  
free circulation of air beneath. Trees  
judiciously planted near the house are  
excellent. Casement windows were  
spoken of above; they may be made  
to swing either outward or inward,  
and will require a double arrangement  
in winter.

**The Kitchen.**

The kitchen is an especially hot place  
in summer. Many people get away  
from it by having a second cook-stove  
in an outer shed. But the kitchen if  
built with thought of the hot weather  
need not be so very uncomfortable.  
In the first place it should have large  
high windows on different walls, let the  
upper sash down almost its full length,  
and raise the lower one a little at the  
bottom. Have awnings or little project-  
ing hoods over the windows. Also have  
a ventilator right over the cookstove  
if possible, a sort of channel built to  
carry the heat right up through the roof.  
If you can't have this have a galvanized  
sheet-metal hood made to hang above the  
range, with a small pipe connecting it  
with outdoors.

**Don'ts and Do's.**

When all has been said there remain a  
few personal hints for keeping cool. Don't  
exert yourself more than is absolutely  
necessary —Simplify. Simplify on meals  
and clothes; live out of doors, be healthier  
therefor, and save mussing up the house;  
if the boys want to sleep in a tent on the  
lawn or in a summer-house let them.

Don't fuss. Don't get excited. Don't  
eat much fat. Don't forget the daily bath.  
Wear sports corsets and a brassiere instead  
of a long stiff corset; have all your cloth-  
ing as "cool" as possible. Do as much  
work as you can early in the morning and  
late in the evening (you can do twice  
as much work in the same time when it is  
cool), and rest two or three hours at  
midday. This is a hint for men as well  
as women. Never mind what your  
neighbor thinks; if he sees you are just  
as "forward" with your work as he is he  
will fall into line next year.

Keep as cool as a cucumber if you can.  
It pays.

**Your Health.**

BY "MEDICUS".

**What to do Till the Doctor Comes.**

POISONING.

THERE is a fashion in poisons as  
there is in ladies' hats. At present  
Corrosive Sublimate (Bichloride of  
Mercury) holds the center of the stage.  
Carbolic Acid, Paris Green, Arsenate of

Lead and Strychnine are still used by the  
less fastidious.

The universal antidote is milk. Cor-  
rosive Sublimate coagulates or curdles  
milk, which prevents or retards its  
absorption. But this curd must be  
removed from the stomach; otherwise  
it would be digested and the Corrosive  
Sublimate would be set free and would  
be absorbed and cause poisoning. Giving  
the milk lukewarm will tend to promote  
vomiting. If you give the patient all  
he possibly can swallow, then put your  
finger down his throat, you will likely  
cause vomiting. (Caution: Make him  
use his own finger; he might bite yours).  
Milk will be servicable in any case of  
poisoning because it "adsorbs" (not  
"absorbs") or causes the poison to stick  
to it. White of egg is as useful as milk  
but it is too expensive. Eggs, too, are  
not always available. Olive oil or salad  
oil can be used where there is much  
burning, as in carbolic acid poisoning.  
Talcum powder is found in every home  
or at least in almost every home where  
there is a woman (and I have no fault  
to find with the judicious use of it). This  
is not poisonous and can be given freely.  
In fact this is now recommended as the  
latest thing in the treatment of poisons.  
Stir a teaspoonful in a glass of warm  
water and repeat the dose as often as  
the patient can take it. Then produce  
vomiting. It "adsorbs" or causes the  
poison to stick to it, and thus prevents  
absorption.

Treat the general symptoms as they  
arise. If the patient is collapsed apply heat  
to the body—hot water bottles. If he  
complains of abdominal pain heat will  
give some relief.

Summary.—Give milk freely—and then  
make your patient vomit. If milk or  
eggs or olive oil are not available, use  
talcum powder.

Poison Ivy: You can tell poison ivy  
from Virginia creeper—the ivy has three  
leaves, the other five.

Treatment—Don't scratch it. You  
may get an infection (blood poisoning).  
The simplest treatment is the liberal  
use of baking soda. Moisten some and  
bind on with a cloth or bandage. Blue  
clay is also good, because it is alkaline.  
The swelling and smarting of poison ivy,  
like that of a bee sting, is due to an acid,  
hence the value of any alkaline, soda,  
ammonia, aluminium hydroxide (blue  
clay).

**Health Epigram.**

You get many diseases by the  
germs getting into your mouth or  
nose. Avoid mouth spray.

**The Children's Poem.**

Wispy-Will.

Down in a hollow below the hill,  
There dwells a fairy called Wispy-Will;  
His eyes are round and his hair is white,  
His shoes are green and his heart is light.

His house is built in a beautiful way:  
Mosses and pebbles and nice warm hay;  
His curtains are pink as dawning-peep,  
His bed is a shell where he croons to sleep.

Sometimes a beetle will come to tea,  
And then they're cosy as folks can be:  
They shut up the windows, they bolt  
the doors,

They pile on the sticks till the fire roars.  
Then, while the Beetle takes off its boots,  
Our Wispy sets out the cakes and fruits;  
The cups are like moonbeams, the cloth  
silk,  
The butter is made of daisy-milk.

They sit and feast till the moon is high,  
When out they run and up they fly  
Up to the stars, high over the trees,  
They float on the clouds and race the  
breeze.

Then when they're weary they both come  
down,  
And Beetle pops on his coat of brown;  
He thanks Wispy-Will and away he  
creeps,  
While Wispy goes off to the Land of  
Peeps.

**Current Events**

The Dominion Parliament was pro-  
rogued on July 1st. Sir Robert Borden,  
who has been Premier since 1911, re-  
signed and may retire from public life.  
The Unionist Party will henceforth be  
known as "The National Liberal and Con-  
servative Party", and will be led by a man  
chosen by the Cabinet. There will be  
no coalition for Liberal-Unionists and  
a new party may be formed. Among  
possibilities so far spoken of as the next  
Premier are Sir Thomas White, Hon.  
Arthur Meighen, and Sir George Foster

Sir Robert Borden repudiated the  
charges made by Mr. Murdock, who  
recently resigned from the Board of  
Commerce.

Hon. Manning Doherty has named a  
committee to inquire into the subject of  
a system of rural credits for Ontario

Quebec is forming a Farmer's Inde-  
pendent political party similar to the  
U. F. O.

Cancer patients treated by Dr. Glover  
in Toronto with the new serum that he  
has discovered continue to show marked  
improvement.

U. F. O. and Labor men at West York  
have chosen James Cameron of Weston, a  
farmer, as their candidate in the next  
Federal election.

It was decided, by an amendment to  
the Luxury Tax Bill, that the tax will be  
paid only on excess over \$60 in tailor  
made suits. The free maximum in ready-  
to-wears remains at \$45.

Having made a special study of the  
Ontario High School system, Hon. R. H.  
Grant, Minister of Education, has ap-  
pointed a special committee to go into  
the whole question with a view to making  
recommendations regarding any changes  
it may be advisable to make.

The Democratic National Convention  
opened in San Francisco on June 28th.  
After an untoward incident or two at  
the beginning the Convention resolved  
itself into a conspicuous triumph for  
Wilson. At time of going to press,  
voting is in progress, and McAdoo holds  
first place. Mr. Homer S. Cummings, in  
his keynote address declared for the  
Peace Treaty and the League of Nations  
without reservations, championing the  
League as "The Monroe Doctrine of the  
World."

Lord d'Abernon has accepted the post  
of British Ambassador to Germany.

An important Conference was held at  
Brussels on July 2nd to draft a program  
for meeting the German delegates at  
Spa.

The Allies have completed the destruc-  
tion of the forts along the Dardanelles.

D

M

# The Dryden-Miller Sale of IMPORTED SCOTCH SHOTHORNS

Canada's Premier Sale of the World's Greatest Breed

More than 100 Breeding Cattle Selected from Scotland's Most Famous Herds

**120** 100 Breeding Females. 19 Outstanding Show Heifers. Only One Young Bull **120**  
 65 COWS WITH CALVES AT FOOT—THE BEST FROM TWO GREAT IMPORTATIONS

LOTS Every Animal Regardless of Age Guaranteed a Breeder, Selling at Mapleshade Farm LOTS

## Brooklin, Ontario, Wednesday, July 21, 1920

**As regards the offering and the guarantee:—**

FOR this sale of imported Scotch cattle, Messrs. Dryden & Miller have selected in the Old Land, not only choice cattle of popular strains, but have also chosen cattle that, in every case, showed evidence of being females that would prove profitable from a purely breeding standpoint. Individually, the offering may be said to be of exceptional merit throughout, and in their guarantee they have gone just one step further than that given in any other public sale so far held in Canada—in that every animal, regardless of age, is guaranteed a breeder. All, too, have successfully passed the Federal test for tuberculosis, and the buyer will be given the privilege of a sixty-day retest in every case. These are the guarantees on which the offering will be sold, and purchasers on July 21st may well feel that the protection afforded them is more liberal than they have so far experienced in any Canadian sale ring.

**The Individuality:—**

WITH 120 lots catalogued it is not our intention to attempt at individual mention of even the tops which are now being listed for this great sale. Many breeders throughout Ontario at least, have during the past few weeks had the pleasure of inspecting many of them either at Mapleshade or in quarantine and it is probably sufficient to say that both importations have met with the greatest of appreciation from every breeder who has seen them who is a recognized judge of good cattle. In most instances the cows are not only two, three and four-year heifers but over 60 of the number already have calves at foot, all of which are sired by good Scottish sires which increases the worth of the offering two-fold. The large number of young cows listed however, are no more pleasing than are the individuals themselves and Canadian breeders are fortunate in being afforded the privilege of contending for them in an unreserved sale ring.

**Train accomodation—**

A special C.T.R. train will leave the Union Station Toronto immediately after the arrival of all important morning trains (about 9 a.m.) from West and Southern points and will proceed by way of White Jet to Mapleshade Farm crossing, returning to Toronto after the close of sale.

AT MAPLESHADE—All arrangements will be made at "Mapleshade" to try and make you feel at home—comfortable. Lunch will be served at 11.30 a.m. and the sale will begin at 12 o'clock noon—rain or shine.

**The Breeding:—**

AS REGARDS the pedigrees attached to 108 imported cattle going in this sale as well as the dozen Canadian-bred lots there is, in not one instance, need for any apology. A few of the imported pedigrees perhaps do not reach Bruce, Duthie or Cruickshank breeding in the very top crosses but there is not one among them but that was bred by a reputable well-known present-day Scotch breeder and the top bulls are in many instances the best noted breeding sires of to-day in Britain. Among the imported calves at foot will be found several youngsters, while although young, already show promise of herd sire material and as they will be selling with their dams they should prove doubly attractive to breeders who in another year will be needing a change of sire. The breeding of the offering throughout will be found attractive and quite in keeping with the splendid individuality which is represented.

**Every breeder should attend this sale:—**

IF YOU are a small breeder it is all the more reason why you should attend this sale and see these cattle sold. You want to know, or at least should know, the sort of breeding cattle the market of to-day is commanding so as you may work more intelligently with your own herd at home. If you are a large breeder your attendance will enable you to see the value your fellow-breeder places upon the kind of cattle we all like to breed. If you are a wide-a-wake breeder and therefore a prospective buyer of good breeding cattle you will do yourself all the more good by being present not only to learn but to profit by what you learn—and take home one or more good breeding females of the greatest breed of cattle on earth. We want you with us.

POSITIVELY THE GREATEST AGGREGATION OF BREEDING FEMALES EVER SOLD IN ONE SALE RING ON THIS SIDE OF THE WATER

W. A. DRYDEN, Brooklin

JOHN MILLER, JR., Ashburn

For Catalogues apply to  
W. A. DRYDEN, Mapleshade Farm, BROOKLIN, ONT.

Auctioneers: CAREY M. JONES  
"SCOTTIE" MILNE  
CAPT. T. E. ROBSON

D

M

# The Fashions.

## How to Order Patterns.

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

**POSITIVELY NO PATTERNS WILL BE SUPPLIED EXCEPT THOSE ILLUSTRATED.**

Since pattern manufacturers have raised the price of patterns (owing to scarcity of paper, etc.) all patterns henceforth will be 15 cents per number.

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

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

3262. Girl's Dress.  
 Cut in 4 sizes: 8, 10, 12 and 14 years. A 12-year size will require 4½ yards of 27-inch material for the dress, and 2¼ yards for the "jumper" or overblouse. Price 15 cents.

3260. A Smart Frock.  
 Cut in 3 sizes: 16, 18 and 20 years. An 18-year size will require 3¾ yards of 40-inch material for waist and skirt, and 1¼ yard for the jumper. Width of skirt at lower edge is a little over 2 yards. Price 15 cents.

2880. Child's Set.  
 Cut in 4 sizes: 6 mos.; 1, 2 and 3 years. Size 2 will require of 36-inch material, 2 yards for the dress, ⅞ yard for the sack, and ½ yard for the bonnet, with ¼ yard of lining. Price 15 cents.

3249. Porch or Home Dress.  
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It will require 6½ yards of 36-inch material for a medium size. The width of skirt at its lower edge is 2 yards. Price 15 cents.

3267. Girl's Dress.  
 Cut in 4 sizes: 6, 8, 10 and 12 years. A 10-year size will require 3½ yards of 40-inch material. Price 15 cents.

3275. A Stylish Gown.  
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size requires 5½ yards of 44-inch material. The width of the skirt at lower edge is about 1½ yard. Price 15 cents.

3266. Child's Play Dress.  
 Cut in 4 sizes: 2, 4, 6 and 8 years. A 4-year size will require 3¾ yards of 27-inch material. Price 15 cents.

2947. Ladies' Apron.  
 Cut in 4 sizes: small, medium, large and extra large. size medium requires 4½ yards of 36-inch material. Price 15 cents.

3121. Child's Dress with Bloomers.  
 Cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 will require 3¼ yards of 36-inch material for the dress, and 1¼ yard for the bloomers. Price 15 cents.

3063. Dress for Home Wear.  
 Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 38 requires 5¼ yards of 36-inch material. Width of skirt at lower edge is 1¾ yard. Price 15 cents.

3268. Junior Dress.  
 Cut in 3 sizes: 12, 14 and 16 years. A 14-year size will require 4¾ yards of 36-inch material. Price 15 cents.

3264. Ladies' Undergarment.  
 Cut in 4 sizes: small, 32-34; medium, 36-38; large, 40-42; and extra large, 44-46 inches bust measure. A medium size will require 3¾ yards of 36-inch material, with 2¾ yards of flouncing 15 inches wide. Price 15 cents.

3261. Child's Dress.  
 Cut in 4 sizes: 2, 3, 4 and 5 years. A 4-year size will require 2¾ yards of 27-inch material. Price 15 cents.

3265-3252. A New and Stylish Sports Costume.

Waist 3265 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size will require 2¾ yards of 27-inch material. Skirt 3252 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. A 24-inch size will require 3¾ yards of 40-inch material. Width of skirt at lower edge is a little over 2 yards. TWO separate patterns, 15 cents FOR EACH pattern.

3278. A Becoming Dress.  
 Cut in 4 sizes: 8, 10, 12 and 14 years. A 12-year size will require 4¾ yards of 40-inch material. Price 15 cents.

3263. A Comfortable Apron.  
 Cut in 4 sizes: small, 32-34; medium, 36-38; large, 40-42; and extra large, 44-46 inches bust measure. A medium size will

require 4¾ yards of 36-inch material. Price 15 cents.

3198. A Practical Dress for Maternity or Invalid Wear.

Cut in 7 sizes: 34, 36, 38, 40, 42, 44, and 46 inches bust measure. The width of the skirt at lower edge is 2 yards. A medium size will require 7¾ yards of 38-inch material. Price 15 cents.

3191. Girl's Dress.  
 Cut in 4 sizes: 8, 10, 12 and 14 years. A 12-year size will require 4 yards of 44-inch material. Price 15 cents.

2842. Ladies' House Dress.  
 Cut in 7 sizes: 36, 38, 40, 42, 44, 46 and 48 inches bust measure. Size 38 requires 4¾ yards of 44-inch material. Width of skirt at lower edge is about 2½ yards. Price 15 cents.

3200. Child's Dress.  
 Cut in 4 sizes: 4, 6, 8 and 10 years. An 8-year size will require 3½ yards of 27-inch material. Price 15 cents.

3188. A Pretty Frock.  
 Cut in 3 sizes: 16, 18 and 20 years. A 16-year size will require 6¼ yards of 44-inch material. The width of skirt at lower edge is 1½ yard. Price 15 cents.

3199. Juniors Dress.  
 Cut in 3 sizes: 12, 14 and 16 years. A 14-year size will require 3¾ yards of 44-inch material. Price 15 cents.

3187. An "Easy to Make" Apron.  
 Cut in 4 sizes: small, 32-34; medium, 36-38; large, 40-42; and extra large, 44-46 inches bust measure. A medium size will require 5 yards of 36-inch material. Price 15 cents.

2813. Girls' Dress.  
 Cut in 5 sizes: 2, 4, 6, 8 and 10 years. Size 6 will require 2¾ yards of 36-inch material. Price 15 cents.



ds of 36-inch material.  
 ical Dress for Maternity  
 34, 36, 38, 40, 42, 44,  
 st measure. The width  
 ver edge is 2 yards. A  
 require 7 1/4 yards of 38-  
 Price 15 cents.  
 Dress.  
 8, 10, 12 and 14 years.  
 ll require 4 yards of 44-  
 Price 15 cents.  
 House Dress.  
 36, 38, 40, 42, 44, 46  
 bust measure. Size 38  
 of 44-inch material.  
 at lower edge is about  
 15 cents.  
 Dress.  
 4, 6, 8 and 10 years.  
 ll require 3 1/2 yards of  
 Price 15 cents.  
 Frock.  
 16, 18 and 20 years.  
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 yard. Price 15 cents.  
 Dress.  
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 ll require 3 3/4 yards of  
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 y to Make' Apron.  
 small, 32-34; medium,  
 ; and extra large, 44-46  
 re. A medium size will  
 36-inch material. Price  
 cents.  
 2, 4, 6, 8 and 10 years.  
 e 2 1/4 yards of 36-inch  
 5 cents.

3232. Misses Dress.  
 Cut in 4 sizes: 14, 16, 18 and 20 years.  
 A 16-year size will require 5 1/2 yards of  
 36-inch material. The width of the skirt  
 at lower edge is 1 1/4 yard. Price 15 cents.  
 3245. Child's Dress with Guimpe.  
 Cut in 4 sizes: 4, 6, 8 and 10 years.  
 For a 6-year size 1 1/2 yard of 27-inch  
 material will be required for the guimpe,  
 and 2 1/2 yards for the dress. Price 15  
 cents.  
 2906. A Comfortable Lounging Robe.  
 Cut in 4 sizes: small, 32-3 ; medium,  
 36-38; large, 40-42; and extra large, 44-46  
 inches bust measure. Size medium will  
 require 5 1/4 yards of 36-inch material.  
 Price 15 cents.  
 3091. A Pretty Frock.  
 Cut in 4 sizes: 8, 10, 12 and 14 years.  
 Size 10 requires 4 1/4 yards of 27-inch  
 material. Price 15 cents.  
 3239-3220. An Attractive Costume.  
 Waists: 3239 cut in 6 sizes: 34, 36, 38,  
 40, 42 and 44 inches bust measure. Skirt  
 3220 cut in 6 sizes: 22, 24, 26, 28, 30 and  
 32 inches waist measure. A medium size  
 will require 6 3/8 yards of 38-inch material.  
 The width of the skirt at its lower edge  
 is about 1 1/4 yard. TWO separate pat-  
 terns 15 cents FOR EACH pattern.  
 3243. Boy's Suit.  
 Cut in 5 Sizes: 2, 3, 4, 5 and 6 years.  
 A 4-year size will require 2 1/2 yards of 27-  
 inch material. Price 15 cents.  
 2884. Ladies' Apron Dress.  
 Cut in 4 sizes: small, 32-34; medium,  
 36-38; large, 40-42, and extra large, 44-46  
 inches bust measure. A medium size will  
 require 4 1/2 yards of 36-inch material.  
 Width at lower edge is 2 1/8 yards. Price  
 15 cents.  
 3233. Girl's Dress.  
 Cut in 5 sizes: 4, 6, 8, 10 and 12 years.

A 10-year size will require 2 yards of 27-  
 inch material for the guimpe, and 3 yards  
 for the dress. Price 15 cents.  
 3276-3257. A Dressy Dress for the  
 Matron.  
 Waist 3276 cut in 7 sizes: 34, 36, 38,  
 40, 42, 44 and 46 inches bust measure.  
 Skirt 3257 cut in 7 sizes: 22, 24, 26, 28,  
 30, 32 and 34 inches waist measure. A  
 medium size will require 7 1/4 yards of 40-  
 inch material. The width at lower edge  
 is 1 1/4 yard. TWO separate patterns, 15  
 cents FOR EACH pattern.  
 3273. A Pretty Dress.  
 Cut in 5 sizes: 4, 6, 8, 10 and 12  
 years. A 10-year size will require 2 1/2  
 yards of 27-inch material for the guimpe,  
 and 3 yards for the dress. Price 15 cents.  
 3277. A Popular House Dress.  
 Cut in 7 sizes: 36, 38, 40, 42, 44, 46  
 and 48 inches bust measure. A 38-inch  
 size requires 6 1/4 yards of 36-inch ma-  
 terial. Price 15 cents.  
 3269. Girl's Dress.  
 Cut in 4 sizes: 4, 6, 8 and 10 years.  
 A 6-year size will require 3 3/8 yards of 36-  
 inch material. Price 15 cents.  
 3253. A Becoming Dress.  
 Cut in 3 sizes: 16, 18 and 20 years.  
 A 16-year size will require 4 1/2 yards of  
 44-inch material. The widths of the skirt  
 at lower edge is 1 1/8 yard. Price 15  
 cents.  
 3270. Girl's Blouse and Skirt.  
 Cut in 4 sizes: 8, 10, 12 and 14 years.  
 A 12-year size will require 6 yards of 36-  
 inch material for the blouse and skirt of  
 one material. The skirt alone requires  
 3 yards of 36-inch material. Price 15  
 cents.  
 3114. Ladies' House Gown.  
 Cut in 4 sizes: Small, 32-34; medium,  
 36-38; large, 40-42, and Extra large, 44-46

inches bust measure. Size medium re-  
 quires 5 1/4 yards of 36-inch material, for  
 garment in full length, and 4 1/4 yards for  
 sack length. Price 15 cents.  
 3271. Child's Dress.  
 Cut in 5 sizes: 1, 2, 3, 4 and 5 years.  
 A 2-year size will require 2 1/2 yards of  
 36-inch material. Price 15 cents.  
 3255. A Charming Gown.  
 Cut in 7 sizes: 34, 36, 38, 40, 42, 44  
 and 46 inches bust measure. A 38-inch  
 size will require 7 1/8 yards of 40-inch  
 material. The width of the skirt at lower  
 edge is 1 1/8 yard. Price 15 cents.  
 3279. A Pretty Bolero Frock.  
 Cut in 4 sizes: 6, 8, 10 and 12 years.  
 A 10-year size will require 3 3/4 yards of  
 27-inch material for the dress, and 7/8  
 yard for the bolero. Price 15 cents.  
 3258. Night Dress and Cap.  
 Cut in 4 sizes: Small, 32-34; medium,  
 36-38; large, 40-42; and extra large, 44-46  
 inches bust measure. Size medium re-  
 quires 4 1/8 yards of 36-inch material for  
 the gown, and 7/8 yard for the cap. Price  
 10 cents.  
 3272. Boy's Suit.  
 Cut in 5 sizes: 2, 3, 4, 5 and 6 years.  
 A 4-year size will require 2 yards of 27-  
 inch material for the blouse, and 2 1/2  
 yards for the trousers. Price 15 cents.  
 3256-2746. A Dressy Frock.  
 Waist 3256 cut in 7 sizes: 34, 36, 38,  
 40, 42, 44 and 46 inches bust measure.  
 Skirt 2746 cut in 7 sizes: 22, 24, 26, 28,  
 30, 32 and 34 inches waist measure.  
 Width of skirt at lower edge is 1 1/4 yard.  
 A medium size will require 7 1/4 yards of  
 36-inch material. TWO separate pat-  
 terns, 15 cents FOR EACH pattern.  
 2911. Girl's Dress.  
 Cut in 4 sizes: 6, 8, 10 and 12 years.  
 Size 8 will require 3 1/4 yards of 44-inch  
 material. Price 15 cents.  
 3254. A Dainty Apron.  
 Cut in 3 sizes: Small, medium and  
 large. A medium size will require 2 1/2  
 yards of 36-inch material. Price 15  
 cents.  
 2924. Child's Dress.  
 Cut in 4 sizes: 2, 4, 6 and 8 years.  
 Size 4 will require 2 1/2 yards of 36-inch  
 material. Price 15 cents.



**Cuticura**  
 Will Help  
 You Have  
 Hair Like This

Touch spots of  
 dandruff and  
 itching, if any,  
 with Cuticura  
 Ointment.  
 Shampoo with  
 Cuticura Soap  
 and hot water.

Soap 5c, Ointment  
 25c and 50c. Sold  
 throughout the  
 Dominion. Cana-  
 dian Depot: 77-  
 79, St. Paul  
 St., Montreal.  
 Cuticura  
 Soap shaves  
 without  
 stung.

**LIFT OFF CORNS  
 WITH FINGERS**

Doesn't hurt a bit and costs only  
 few cents



Magic! Just drop a little Freezone  
 on that touchy corn, instantly it stops  
 aching, then you lift the corn off with the  
 fingers. Truly! No humbug!

Try Freezone. Your druggist sells a  
 tiny bottle for a few cents, sufficient to  
 rid your feet of every hard corn, soft  
 corn, or corn between the toes, and  
 calluses, without one particle of pain,  
 soreness or irritation. Freezone is the  
 discovery of a noted Cincinnati genius.

**Hope's Quiet  
 Hour.**

**Open Secrets.**

For nothing is secret, that shall not be  
 made manifest; neither anything hid,  
 that shall not be known and come abroad.  
 —St. Luke VIII 17.

This morning I was told that many  
 acts of petty tyranny and injustice had  
 been going on secretly for a long time in a  
 public institution, and that in a few days  
 the matter would be openly revealed in  
 the newspaper. Whether the people who  
 have been wronged will gain anything  
 from this publicity remains to be seen,  
 but at least it is a reminder of the truth  
 of our Lord's warning that things done  
 secretly cannot be kept secret. There is  
 an old saying to the effect that "murder  
 will out." Emerson's advice is worth  
 noting. He says: "If you would not be  
 known to do anything, never do it. A  
 man may play the fool in the drifts of a  
 desert, but every grain of sand shall  
 seem to see. He may be a solitary eater,  
 but he cannot keep his foolish counsel.  
 A broken complexion, a swinish look,  
 ungenerous acts, and the want of due  
 knowledge—all blab."

A lady who was travelling about in the  
 U. S. declared that she could tell almost  
 as soon as she reached a new place  
 whether the town was "wet" or "dry."  
 When a town had been "dry" for years,  
 the streets and buildings looked trim and  
 prosperous, and the people looked healthy  
 and vigorous. The habits of the in-  
 habitants were plainly manifested by out-  
 ward visible signs.

People sometimes give way to secret  
 sins, of thought or act, which they would  
 never dare to commit if they thought  
 their friends and acquaintances would  
 ever know or even suspect. Sometimes  
 the thoughts are allowed to stray into  
 paths which would be carefully avoided if  
 everybody could read minds. "White  
 lies" would not look very white if they  
 were openly exposed. Little acts of un-  
 kindness or dishonesty don't seem so un-  
 important when they are the talk of the  
 neighbors. Scandalous stories, with a  
 grain of truth in them, are whispered

**THE  
 MOLSONS  
 BANK**

Incorporated in 1855  
 Capital and Reserve \$9,000,000  
 Over 130 Branches

**BEFORE CROPS ARE SOLD**

Farmers needing money while  
 waiting to market crops or stock  
 are invited to consult with the  
 Manager at any of The Molsons  
 Bank Branches.

Savings Departments  
 at all Branches

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or stuttering overcome positively. Our  
 natural methods permanently restore  
 natural speech. Graduate pupils every-  
 where. Free advice and literature.

**THE ARNOTT INSTITUTE**  
 KITCHENER, CANADA





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**T**HE housewives of Canada must prepare for the winter by preserving every fruit in its season. Resolve to put up every berry and large fruit that is plentiful and not prohibitive in price.

Remember that all foods are likely to advance, especially tin goods. The well stocked preserve shelf will be more than ever a genuine treasure.



is not only the best sugar for preserving but the most economical, on account of its high sweetening power and "FINE" granulation which dissolves at once in the hot syrup. Get LANTIC SUGAR in original packages in the size best suited to your needs.

Ask your grocer for LANTIC SUGAR

2 and 5-lb cartons 10, 20 and 100-lb sacks

ATLANTIC SUGAR REFINERIES, LTD.



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

TERMS—Five cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 75 cents.

FLEMISH GIANT RABBITS, THE LARGE strain. Pairs with litters five dollars; also either sex, seven months old, two dollars each. T. Aldington, Cromarty P.O., Perth County, Ont.

FOR SALE—BELGIAN HARES, HIMALAYANS' Rabbits, White Angora Rabbits, English Spotted Rabbits, Black Siberians. Robert W. Nicholson, Strathroy, Ontario.

I HAVE A FEW CHOICE FARMS FOR SALE, from 18 to 290 acres, inclusive, in the best stock-raising section in Ontario. Details gladly given. Colthart's Real Estate Office, Fergus, Ont.

YOUNG MARRIED COUPLE, NO CHILDREN, want work on Western Farm, both milk. Used to Dairy, Barnwork and Feeding. Available, 16th July. James Andrews, Ascott Stock and Dairy Farm, Shawbridge, Quebec.

WANTED—PROBATIONERS FOR TRAINING School, Niagara Falls General Hospital. Three years course. Apply to Superintendent.

WANTED: "DAIRYMEN AT ONCE. MUST be good milkers. Steady employment, \$55.00 per month, room and board. Apply Dairy Dept., Speedwell Hospital, Guelph, Ontario.

WANTED BY MARRIED MAN, NO children, work on farm, experienced. Separate house required. Best references. Apply Box 37, Farmer's Advocate, London, Ont.

### POULTRY and EGGS

Condensed advertisements will be inserted under this heading at five cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 75 cents.

### Poultry Wanted

—We have a special demand for LIVE POULTRY of GOOD QUALITY at this season of the year, which enables us to pay very top prices for any quantity. Get the best market in Western Ontario by selling to C. A. MANN & CO., 78 King Street, London, Ont. Phone 1577.

### Subscribers!

Don't Forget

The "Farmer's Advocate" has been working for you since 1866.

Send one new subscription and \$1.50 and we will advance the date on your own label 6 months.

secretly to eager listeners and grow to alarming proportions as they are passed along. There would be a check on heartless gossip if everybody believed our Lord's warning: "Whatsoever ye have spoken in darkness shall be heard in the light; and that which ye have spoken in the ear in closets shall be proclaimed upon the housetops." The modern way of proclaiming anything upon the housetops is to publish it in the daily papers.

To indulge in secret sin, thinking that no one will know, is to act like the ostrich in the old fable, which hid its head in the sand and imagined that no one could see it.

Of course, we know that every secret thought is open to God. The question: "Can any hide himself in secret places that I shall not see him?" saith the Lord, can admit of only one answer—unless the existence of God be denied altogether. But—are we really as much troubled by the certainty that God knows our secret sins, as we should be if we thought that the men and women around us were aware of them? We can forget His disapproval, but to be disgraced in the eyes of our neighbors is not a thing easily forgotten. We all care a great deal for the good opinion of others. Possibly we may not think we care very much; but, if a man loses his reputation, and discovers that other people are shrinking away from him, he will certainly feel it acutely.

When David had secretly broken one of God's commandments, he tried to save his reputation by breaking another commandment—murdering one of his loyal servants. His only reason for plotting the death of Uriah (II Sam. XI:14, 15) was his desire to cover up his sin. But—because he really loved God most, and cared greatly for His favor—his repentance was as open as he could make it. The heart-broken confession: "I have sinned against the Lord," was followed by a public statement of guilt in the 51st Psalm. It was no satisfaction to him to have the man he had injured swept out of his way, for his sin was against the Lord, who requires truth in the inward parts. The attempt to cover up his guilt had only dragged him into deeper quicksands. Uriah could not denounce his murderer, but the secret was not kept, for David denounced himself. Jacob might have kept silence,—though the king had put himself in the power of the commander of his army,—but David was determined to throw from him the temptation to cover his stained soul with the fair (and false) robe of unblemished reputation. He cast from him that which was as dear as his right eye or right hand, because he knew the value of his soul. He who was the darling of his people, who had joyously led them nearer to God, stood with shamed face and pleaded for God's mercy on a sinner. If his sin was great his penitence was very sincere and deep, because love of God was the very life of his being. He could bear the scorn of man, but he could not endure a barrier between himself and God. A sin that is hidden may fester and poison the soul, but—thank God!—there is a cure for sin. "If we confess our sins, He is faithful and just to forgive us our sins, and to cleanse us from all unrighteousness." The Good Physician lays bare a hidden cancer, in wise and tender love, because He wants to save the sinner. The denunciation of self-satisfied Pharisees was a proof of love. Soft words would only lure their souls into deeper sleep, so the "gentle" Shepherd of the flock thundered His terrible condemnation of their hypocrisy and tore off the robe of outward righteousness, so that they might see and acknowledge the leprosy they tried to hide and forget.

The words of our text are a promise as well as a warning. The Lover of souls still walks among us, and He will not permit us to deceive ourselves when He sees heroic treatment is necessary. Even if we have to endure shame, let us thank God for the forgiveness of sins.

"God's here in His world,  
And the Cross stands for human redeeming.  
Far o'er the sad earth  
Heaven's radiance forever is streaming."

Because we are sinners we look with hope to the Friend of sinners. He is not only willing but He is able to forgive sins and give us strength to overcome temptation. We need not wish that we had lived when Jesus walked here among men. He is here, now. Those who seek Him in humble trust can feel "a hand-

clasp in the dark" and "catch a glimpse of Jesus passing by."

Character is an open secret, as it has always been,—good character as well as bad. Joseph was a stranger and a desolate slave, without a friend to "give him a character," yet his master soon discovered his value and left all that he had in Joseph's hand. Though he was falsely accused and thrown into prison, the keeper of the prison committed to Joseph's hand all the other prisoners. Daniel was a captive in Babylon, yet he was honored by each king who came into power. St. Paul was a prisoner, on his way to Rome to be tried for his life; yet he took command of the ship during the shipwreck, and the soldiers who were his guards obeyed every order he chose to give.

Christ was accused before Pilate and made no attempt to justify Himself, yet the hardened Roman governor instantly saw and acknowledged His innocence.

There are countless deeds of kindness and thoughts of lovely purity, which are hidden like violets in the grass, yet make the world sweeter and happier. To-day a letter reached me from an Alberta reader (Mrs. T. C. M.) containing four dollars for the needy. Several parcels of papers for the "shut-in" also arrived to-day. Gifts laid in the hand of Christ, without any desire to win the glory of men, come back in unexpected showers of blessing on the giver. You can be very glad if you have many lovely secrets which only you and God know about. The world may never shower admiration on you. Would you be any richer or happier if you became famous?

"God's ways are not as our ways: we lay down  
Schemes for His glory, temples for our King,  
Wherein tribes yet unborn may worship Him;  
Meanwhile, upon some humble, secret thing  
He sets His crown."

DORA FARNCOMB.

### 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 a stamped envelope ready to be sent on. (4) Allow one month in this department for answers to questions to appear.

### Washin' Clo'es.

BY WILBUR STOUT.

I like to wash in de shade ov de house  
When de sun 'gins to git hotter an'  
hotter  
I don' min' den for de jar-flies to buzz,  
'Cause I'm singin' an' splashin' in de  
water.

All de chillun plays in de beeg san' pile,  
An' talk 'bout good, dey never does  
fought,  
More'n all chillun will, when dey plays in  
de san';  
Dey knows dey better be good when I's  
about.

Jes' gimme a tub ov good spring water  
An' a bunch of clo'es with a whole lot  
ov lace  
An' I can wash de whole week aroun'  
Out in de shade at my washin' place.

"WASHIN' clo'es" isn't a half bad job provided: one has good health and plenty of "muscle"; plenty of water, fuel and soap; washings that are neither too big nor too dirty; the right sort of utensils. One more requisite is necessary—that the laundress does not fuss because on laundry day her other household arrangements are a little disorganized.

The best way to keep them from being too much disorganized is to make Tuesday (not Monday) serve as wash-day, and to have everything ready for an early start and a smoothly-running day. Some housekeepers prefer to wash every second or third week, and make a huge washing of it; others prefer to wash every week, claiming that two or three small washings are not nearly so hard on health and strength as one large one. In either case let Tuesday be wash-day; that gives time to tidy up the house after Sunday;

catch a glimpse

secret, as it has character as well as danger and a desecration to "give him master soon disleft all that he had ough he was falsely into prison, the mitted to Josephs' ners. Daniel was et he was honored ame into power. er, on his way to s life; yet he took during the ship who were his orer he chose to

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our ways: we lay y, temples for our orn may worship e humble, secret own."

RA FARNCOMB.

**Nook**

in this and other write on one side of d name and address name is also given ublished. (3) When ed to anyone, place dy to be sent on his department for

o'es.

OUT. e ov de house o git hotter an'

beeg san' pile, dey never does

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isn't a half bad one has good ty of "muscle"; soap; washings or too dirty; the e more requisite ndress does not day her other are a little dis-

hem from being o make Tuesday wash-day, and y for an early ing day. Some sh every second a huge washing sh every week, small washings on health and one. In either -day; that gives e after Sunday;

and prepare "beforehand" meals that can be easily slipped on the table. For example: a roast of meat or a "mock duck" may be cooked on Monday; potatoes may be boiled and chopped all ready for "fried potatoes" or a potato salad, and kept in a covered dish in a cold place along with the hard-boiled egg, salad dressing, etc., which are to be mixed in at the last minute; late Monday evening a simple dessert may be got ready,—gelatine jelly, for instance, that will stiffen over-night and needs only to be served with sugar and cream. Instead of this, on Tuesday, while the washing is going on, a piece of cake that has passed its early deliciousness may be steamed and served, with sauce or cream and sugar, as pudding.—One can think of numbers of other things that will keep very well over night.

An electric or motor washer certainly transforms wash-day almost into a holiday, comparatively speaking. An ordinary hand washer helps considerably. So does a good wringer—for colored clothes. But if you want to have your white clothes a good color, whether with wash-board or machine, be sure to choose a bright, sunny day for the washing process, and hang the clothes out *very wet*, where the sunshine will strike fully upon them. White clothes don't need blue, but they do need excellent rinsing through two or three waters, and exposure to bright sunshine, which is both bleach and disinfectant. As clothes bleach under sunlight only when they are wet, the advisability of very light wringing, for white goods, may be easily understood.

For colored clothes, on the contrary, very good wringing is necessary. Since they simply must not bleach, they should be wrung as dry as possible, shaken out immediately and hung on a line in a shady airy place where they will dry as quickly as possible. To prevent colored gingham, muslins, etc., from fading, soak them for a short time in some water to which a little turpentine has been added, wring out and let dry, then launder as usual, using a mild white soap and water that is not too hot. Starch is not used for these dresses nowadays, as a soft effect is sought.

Should stains appear on white clothes or table linens, a cupful of Javelle water added to the boiler when washing will usually remove them. This may be bought at a drug-store, or it may be made at home. *Scientific American* gives the following method:

**Javelle Water.**—Take bicarbonate of soda, 4 lbs.; chloride of lime, 1 lb. Put the soda in a kettle over the fire with 1 gallon boiling water. Let boil 10 to 15 minutes, then stir in the chloride of lime, avoiding lumps. When cool strain through thicknesses of cheesecloth and bottle for use.

**Washing Compound.**—Some people use washing compounds to make the work easier or more efficient. The following mixture is said to greatly facilitate the process: Dissolve 2 lbs. bar soap in about 3 gallons hot water; add 1 tablespoonful of turpentine and 3 of ammonia, stir, then steep the clothes in this for 3 hours, keeping the boiler tightly covered. (The clothes are put in dry, if not too soiled). Afterwards wash the clothes in the usual way. The soap and water may be used a second time by adding a teaspoonful each of turpentine and ammonia.

**Washing Blankets.**

Choose a bright warm day, when the blankets will dry quickly. Two methods have been recommended—the "hot water" and "cold water," both of which, contrary though it may seem, are said to prevent the wool from shrinking and make the blankets fluffy. Perhaps all depends upon the particular way in which the work is done.

**Hot-Water Method.**—Have plenty of warm, (not boiling) soft water ready. Shake the blankets to remove the dust, then plunge into a tub of warm water in which plenty of Pearline has been dissolved. Let soak 15 minutes, then souse and wash with the hands until clean. The secret is to rinse in about three waters, the water being soft and *each hotter than the last*. Wring as dry as possible and dry at once in an airy place.

**Cold-Water Method.**—This "recipe" has been copied from *The Australasian*: "The method of washing blankets in cold water has much to recommend it, as it prevents the wool shrinking, and the blankets dry softer and whiter. Soap and borax should be added to the water to soften the dirt. Use 4 tablespoonfuls of

soft soap and 4 dessertspoonfuls of borax to 5 gallons of water. Take the borax and soft soap, and boil in a little water until the soap has entirely melted. Then pour into a trough, and add the cold water, stirring all the time to mix well. Put the blankets in and soak overnight. Next day rinse in cold water until the water that comes away is quite clear. They should be passed through a wringer, if possible, with the rollers very loose."

A nice idea is to put the blankets away with cloves between the folds. This helps to keep moths away, as well as giving a pleasant spicy perfume to the blankets. Bags of lavender are still nicer, and it is to be hoped that the day will come when this plant will be grown in every Canadian garden.

\* \* \* \* \*

Should the supply of soft water run out at any time during the summer there is no reason to despair, as borax or washing soda will "soften" hard water. It is wise, however, to use as little as possible of either for colored clothes, as both have a tendency to bleach out the color.

**Ironing.**

All white clothes, and such colored ones as will not "run," should be dampened in the evening and left over night. A clean whisk broom is good for sprinkling, although sprinklers for the purpose may be bought. Roll the clothes up tightly in a clean old sheet kept for the purpose. If obliged to iron shortly after the clothes are dampened, use hot water for sprinkling; it will permeate the clothes very much sooner than cold water.

**A Letter From a Poet.**

Dear Junia.—I am writing you a letter which I hope will find a place in the Ingle Nook because I am sure it will be of interest to your readers. Space is precious I know, so let me say at once that I congratulate you most sincerely on your splendid new book "The Forging of the Pikes." I suppose there are some Ingle Nook readers who do not know that you are an author of real fame and in that case it is time they knew. Besides the above mentioned book, Junia is the author of a novel of particular interest to country folk called "Carmichael." But no doubt many have read it and know its charm. "The Forging of the Pikes" is a love story woven about the thrilling scenes of the "Rebellion of 1837." It is full of gripping interest and is very carefully and faithfully told in regard to politics and conditions in Upper Canada in the days of the uprising. The love story is unusual in that it glimpses the deep places of a man's heart instead of dwelling on the emotions of women, as so many novels do. Alan's love for his "Wild Rose Woman," his loved companion of the "Golden-Winged Woods" makes a new and beautiful appeal. The new book promises to be a best-seller and I am sure everyone who reads the Ingle Nook will want to read it and so let me say to one and all, look for it in your libraries and book stores under the author's pen name, "Anison North." It is essentially Canadian and will be immensely popular in Canada for this reason. Thank you Junia for letting me talk to your shadow friends. You are so modest yourself it would never be known through you that you are a Canadian writer of note.

AMY E. CAMPBELL.

I thank the Western Ontario poet who sent the above letter to Ingle Nook with true appreciation of the spirit in which she wrote it. I am very proud indeed to have such recognition from "Amy E. Campbell." Some readers have written to us asking where "The Forging of the Pikes" might be got in book form. It is now on sale in the bookshops, and at the publisher's—McClelland & Stewart, 215 Victoria St., Toronto. (The price is \$2.00).—JUNIA.

**Worth Thinking Over.**

"Education ends only with life," —Bishop Vincent (Founder of the Chautauqua Movement.)  
"For the life of man upon this world of ours is a funny business. They talk of the angels weeping; but I think they must more often be holding their sides as they look on." —From "David Balfour," by Robert Louis Stevenson.

**"Premier Leader" STEEL RANGES**



These Davidson Ranges have a body of heavy polished steel, protected by asbestos and hand-riveted with cone-headed rivets, cast iron tops, centres and covers ribbed.

A contact reservoir can be supplied to attach to either left or right end. Steel Persian closet at top is an extra convenience.

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|---------------|--------|-------------------|--|---------------|
| 330           | 5-34-0 | 22"               | 7, 8, 9, 10                            | \$0.45        |
| 280           | 6-34-0 | 22"               | 5, 5, 6, 9, 9                          | .55           |
| 760           | 7-26   | 16 1/2"           | 3, 4, 5, 5, 6                          | .65           |
| 10            | 8-40   | 16 1/2"           | 3 1/2, 3 1/2, 4 1/2, 5 1/2, 8, 8 1/2   | .78           |
| 10            | 8-42   | 16 1/2"           | 6, 6, 6, 6, 6, 6, 6                    | .80           |
| 10            | 8-47   | 16 1/2"           | 5, 5, 6, 7, 7, 8, 9                    | .83           |
| 300           | 8-31   | 16 1/2"           | 3, 3, 3, 4, 5, 6, 7                    | .77           |
| 850           | 9-48   | 12"               | 6, 6, 6, 6, 6, 6, 6                    | 1.04          |
| 160           | 10-48  | 12"               | 3 1/2, 3 1/2, 3 1/2, 5, 6, 7, 8, 8 1/2 | 1.10          |

Also the following Styles in MEDIUM WEIGHT Top and Bottom wires No. 9 all others No. 12 gauge,

|      |       |         |                                |     |
|------|-------|---------|--------------------------------|-----|
| 360  | 7-26  | 8"      | 3, 3 1/2, 4, 4 1/2, 5, 6       | .62 |
| 600  | 7-42  | 13"     | 5, 6, 7, 8, 8                  | .55 |
| 1200 | 8-48  | 16 1/2" | 4, 5, 6, 7, 8, 9, 9            | .62 |
| 600  | 9-30  | 13"     | 3, 3, 3, 3 1/2, 3 1/2, 4, 5, 5 | .68 |
| 700  | 10-54 | 16 1/2" | 3, 3, 4, 5, 6, 7, 8, 9, 9      | .75 |

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Richly Bred Duroc-Jersey Hogs offered at your own price  
BRED SOWS, SERVICE BOARS, SPRING BOARS

Only choice individuals entered in sale at

Essex Agricultural Grounds, Essex, Ontario  
on SATURDAY, JULY 31, 1920

at 2 o'clock p.m.

COL. M. R. CLARK, Brimfield, Ill., Auctioneer

Write for catalogue and further particulars to

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## Grow Better Wheat with Freeman's Fertilizer

Wheat responds to fertilizer so well that this crop is now generally fertilized. Even on new soils, fertilizer on wheat gives profitable returns.

It aids the young plant in stooling out, thus increasing the number of stems and the yield.

Applied to late sown wheat, it enables the plant to "make up for lost time."

It prevents winter injury to wheat.

It hastens maturity and prevents rust injury.

It produces quality grain and increases the yield per acre.

Freeman's high-grade fertilizer has been the standard for 40 years.

Well mixed and chemically dry it is easily applied. Order today from the Freeman agent.

**W. A. FREEMAN COMPANY,**  
LIMITED  
**Hamilton, Ontario**

### Canning the Mid-Summer Fruit.

**C**HERRIES, raspberries, currants, gooseberries and blackberries may all be canned according to the "cold pack method," described in full in our issue for June 17th.

The following hints may be useful when doing them up:

**Cherries.**—Wash, remove stems and pits, saving the juice. Pack in jars as usual, fill up with thin or medium-thin syrup according to acidity. Sterilize 16 minutes after actual boiling begins.

**Currants.**—Wash and stem. Use medium-thin syrup and sterilize as for cherries.

**Gooseberries.**—Wash, snip off stem and blossom ends, use medium-thick syrup, and sterilize as for cherries.

**Raspberries.**—Clean, use medium-thin syrup and sterilize as for cherries.

**Blackberries.**—Clean, use medium-thin syrup and sterilize as for cherries.

Recipes for making the various syrups were given in June 17th issue.

### How to Save Sugar.

**T**EMPORARILY, as remarked in these pages recently, sugar can be saved by canning fruit absolutely without it. But eventually some sort of sweetening must be put in. Sugar is, of course, the best sweetener, and "Medicus" has drawn to our attention the fact that beet sugar, from the nutritive standpoint, is quite as good as cane sugar.

Any kind of sugar is, however, at the present time, more expensive than ever before, at least in the memory of most folk. It seems to be scarce, and so it may be advisable to look about for a substitute.

Honey is an excellent substitute, of course, but, unless one happens to keep bees, an expensive one. Saccharine is very sweet, but most people find it cloying. Then there is glucose, which is a good food as well as a fairly good sweetener.

During the War, when people were looking in all directions for "substitutes," for sugar as well as flour, glucose was very frequently recommended as a sub-

stitute for the former, and pamphlets giving directions for its use were sent out by various Governments. The one from Ottawa is before me as I write, and in it I find the following suggestions, which I am very glad to pass on to you.

#### Corn Syrup for Canning, Etc.

Glucose is a starch sugar made, in this country, chiefly from corn, hence the name under which it is sold, "Corn Syrup."

Corn syrup is of two kinds, golden and white—the latter being glucose with the addition of a small amount of cane sugar, and, therefore, better for some things than the golden. The golden may, however, be made equal as a sweetening agent by adding to it a quantity of sugar.

**Preserving.**—During the war the British Board of Agriculture and Fisheries issued a leaflet recommending the use of glucose for preserving in the proportion of one part glucose to two of sugar. This mixture does very well for jam, jelly and rich preserves, and is a substantial saving on sugar.

**Canning.**—Fruit may be canned or sweetened with white corn syrup, mixed with sugar as indicated in the following table:

| To 5 lbs.                | White corn syrup | Sugar   | Water  | Time of Boiling |
|--------------------------|------------------|---------|--------|-----------------|
| Berries.....             | ½ lb.            | 1½ lbs. | 1 pt.  | 15 min. (slow)  |
| Sour cherries..          | ¾ "              | 2½ "    | 1½ "   | 15 "            |
| Sweet cherries..         | ¾ "              | 1½ "    | 1½ "   | 15 "            |
| Currants..               | 1 "              | 3 "     | 1 "    | 15 "            |
| Gooseberries, (green)... | 1 "              | 3 "     | 1 "    | 15 "            |
| Sour apples..            | ½ "              | 1½ "    | 3 pts. | 15-20 "         |
| Pears.....               | ¾ "              | 1½ "    | 1½ "   | 15 min.         |
| Plums.....               | ¾ "              | 2 "     | 1½ "   | 20 "            |
| Peaches....              | ¾ "              | 1½ "    | 1 "    | 10-15 "         |

### Corn-Syrup Recipes.

**Apple Sauce.**—Eight apples, 6 tablesp. white corn syrup, ½ teas. cinnamon, ½ cup water. Cook until soft, then mash and beat until no lumps remain.

**Cake Without Sugar.**—One-quarter cup shortening, 2 cups corn syrup, 2 eggs, 3 cups flour, 1½ tablesp. baking-powder, ¼ teas. salt, 1 cup milk. Cream the shortening, add the syrup and the beaten egg and mix well. Add the milk. Sift flour and baking-powder together and add slowly to the mixture. Beat well. Bake in a moderate oven as a loaf or layer cake, or as small drop cakes. Raisins, currants or chopped nuts may be added to the batter.

**Chocolate Cake.**—Three and one-half teasp. shortening, ¼ cup sugar, ¼ cup corn syrup, 1 egg, ¼ cup milk, 1 cup flour, 1½ teas. baking-powder, ¼ teas. salt, 1 square chocolate, ¼ teas. vanilla. Cream the shortening; add sugar gradually, syrup and egg, well beaten. Mix and sift dry ingredients and add alternately with the milk to the first mixture. Add the chocolate, which has been melted over water. Add the vanilla. Bake about 30 minutes in a moderate oven.

**Oatmeal Pudding.**—Two cups cooked oatmeal, ½ cup golden corn syrup, ½ cup raisins (seeded and cut in two), 1 teas. milk, ½ teas. salt, ½ teas. cinnamon, ¼ teas. cloves. Heat the oatmeal, corn syrup, salt, spices and milk in a double boiler until smooth. Add the raisins. Turn into a greased baking dish and bake about 35 minutes in a moderate oven.

**Rice Pudding.**—One-quarter cup rice, ¾ cup milk, 2 teasp. white corn syrup, ¼ teas. nutmeg (grated), ¾ cup raisins. Cook the rice in boiling salted water until soft. Pour off the water, add the other ingredients and bake in a moderate oven 40 minutes.

**Potato Drop Cookies.**—One cup mashed potato, 1 cup corn syrup, ½ cup shortening, ¾ cup buckwheat flour, 2 teasp. baking-powder, ½ teas. cinnamon, ¼ teas. cloves, ½ teas. nutmeg, ½ cup raisins, 1 teas. salt, grated rind of a lemon, 1 teas. lemon juice. Mix in order given and drop by spoonfuls on a

slightly greased tin. Bake in a moderate oven.

### Cool Drinks for Hot Weather.

**Hungarian Coffee.**—Make some strong coffee and add sugar and cream to taste. Chill thoroughly, and when serving put a spoonful of vanilla ice-cream in the bottom of each glass.

**Fruit Frappe.**—Boil a cup of sugar with 2 cups water for 5 minutes. Cool and add the juice of any fruit—berries, currants, etc.—with half a cup of lemon or orange juice. Next beat in the unbeaten whites of 3 eggs. Freeze until just soft and serve in glasses.

**Iced Tea.**—To 1 quart freshly-made tea, poured off the leaves, add ½ cup lemon juice, sweeten to taste and chill. Serve with a slice of lemon on each glassful.

**Iced Coffee.**—Cool the coffee, then chill well; add sugar and cream, and serve at once. Chocolate may be served the same way with a little whipped cream on top on each glass.

**Fruit Punch.**—Mix together any kinds of soft summer fruit until you have a quart, using oranges for the larger share. Add juice of 3 lemons and a small cup of sugar. Let this stand while you boil 1 cup sugar with 2 cups water. Pour this over the fruit and stir well. When cool chill.

**Grape-juice Punch.**—To a quart of strong grape juice add a pint of strained lemonade. Put into a bowl with a piece of ice, and add bits of pineapple.

**Currant Punch.**—Two cups of strong red-currant juice, a quart of water, and a cup of sugar; simmer these together five minutes, and cool. Slice two lemons and two oranges thin, and put into a bowl with a piece of ice and pour the juice over. This may also be made by boiling currant jelly with water, straining, and adding the fruit.

**Milk-shake.**—To two-thirds of a glass of fresh milk add enough sugar-and-water syrup to sweeten it or, use fruit juice mixed with sugar. Fill up the glass with scraped ice, invert a nickel cone over it, and shake until it is light and foamy.

### Six Rules for Success.

BY CHARLES M. SCHWAB.

"Boys, you can have a good time in life, or you can have success in life, but you cannot have both," said Mr. Schwab to the undergraduates of Princeton, in an informal talk there this spring. "And let me tell you," he added, "that never before in history has there been such an opportunity for the successful man as there is to-day. The thing you want to do is to make up your minds as to what you are going to drive for and to let nothing stand in the way of its ultimate accomplishment."

Mr. Schwab gave the Princeton men the benefit of his own experience in the following six rules for success:

First, unimpeachable integrity. This is the very foundation. With this as a starting point the rest will be relatively easy.

Second, loyalty. As a rule I find that the university men are loyal. Be loyal to the people with whom you are associated. Give credit always where credit is due, and remember always it will attract credit to you to give credit to some one else.

Third, a liberal education in the finer things of life, of art, of literature, will contribute toward success in life. Man needs imagination, and these are the sources of it.

Fourth, make friends. Enemies don't pay. You will be surprised at the pleasantness that will surround you when you have made friends instead of enemies. Whatever your misfortunes in life, boys, just laugh.

Fifth, concentrate. Learn to concentrate and think upon the problem in your mind until you have reached a conclusion. Don't be afraid of mistakes. Don't blame a man if he makes them but it is the fool that makes the same one twice.

Sixth, go at your work. You may not find yourself the first year. Don't hesitate to change from distasteful work, but don't change because difficulties come up or troubles arise. Give the best that is in you.

## The Royal Bank of Canada



The Road from the Farm to the Bank should be well worn.

Go to the Manager of the nearest Roy. Bank branch with your financial difficulties while they are small and he can usually help you.

Your affairs will be treated with strict confidence. The Bank's employees are pledged to secrecy about the business of every customer.

CAPITAL AND RESERVES \$35,000,000

TOTAL RESOURCES - \$535,000,000

825 BRANCHES

## Tractor for Sale

One twelve-twenty-four kerosene tractor and one three-bottom Cockshutt plow. Cheap for quick sale.

Box 35, Farmer's Advocate, London, Ontario

**FOR SALE** about 300 squares new 28 gauge corrugated sheets suitable for barn roofing and siding also ridge rolls and have starter etc. at a bargain.

Listowel Drilling Machine Co., Listowel, Ont.

Dates of Fall Fairs, 1920.

Issued by the Agricultural Societies Branch of the Ontario Department of Agriculture, Toronto. J. Lockie Wilson, Superintendent.

Table listing dates for various locations including Aberfoyle, Abingdon, Acton, Agincourt (Scarboro'), Ailsa Craig, Alexandria, Alfred, Alliston, Almonte, Alvinston, Amherstburg, Ancaster, Arden, Arnprior, Arthur, Ashworth, Atwood, Avonmore, Aylmer, Ayton, Bapcroft, Barrie, Baysville, Beachburg, Beamsville, Beaverton, Beeton, Belleville, Berwick, Binbrook, Blackstock, Blenheim, Blyth, Bobcaygeon, Bolton, Bonfield, Bothwell's Corners, Bowmanville, Bradford, Bracebridge, Brampton, Bridgen, Brighton, Brockville, Bruce Mines, Brussels, Burk's Falls, Burford, Burlington, Caledon, Caledonia, Campbellford, Carp, Castleton, Cayuga, Centreville, Charlton, Chatham, Chatsworth, Chelmsford, Chesley, Clarence Creek, Clarksburg, Cobden, Cochrane, Coe Hill, Colborne, Coldwater, Collingwood, Comber, Cookstown, Cooksville, Cornwall, Delaware, Delta, Demorestville, Desboro, Dorchester Station, Drayton, Dresden, Drumbo, Dryden, Dunchurch, Dundalk, Dungannon, Dunnville, Durham, Elmira, Elmvale, Embro, Emo, Emsdale, Englehart, Erin, Essex, Exeter, Fairground, Fenelon Falls, Fenwick, Fergus, Feversham, Flesherton, Florence, Fordwch, Forest, Fort Erie, Fort William, Frankford, Frankville, Fre. Iton.

Table listing dates for various locations including Galetta, Galt, Georgetown, Glencoe, Goderich, Gooderham, Gordon Lake, Gore Bay, Grand Valley, Gravenhurst, Haliburton, Hanover, Harriston, Harrow, Hepworth, Highgate, Holstein, Huntsville, Hymers, Ilderton, Ingersoll, Inverary, Iron Bridge, Jarvis, Kagawong, Keene, Kemble, Kemptville, Kenora, Kilsyth, Kincardine, Kingston, Kirkton, Lakefield, Lakeside, Lambeth, Lanark, Langton, Lansdowne, Leamington, Lindsay, Lion's Head, Listowel, Lombardy, Loring, London (Western Fair), Lucknow, Maberly, Madoc, Magnetawan, Manitowaning, Markdale, Markham, Marmora, Massey, Matheson, Mattawa, Maxville, Maynooth, McDonald's Corners, McKellar, Meaford, Merlin, Merrickville, Metcalfe, Middleville, Midland, Mildmay, Millbrook, Milton, Milverton, Minden, Mitchell, Morrisburg, Mount Brydegs, Mount Forest, Muncey (United Indian), Murillo, Napanee, New Hamburg, Newington, New Liskeard, Newmarket, Niagara-on-the-Lake, Noelville, North Bay, Norwich, Norwood, Oakville, Odessa, Ohswekin, Onondaga, Orangeville, Orillia, Oro, Orono, Orrville, Oshawa, Ottawa (Central Canada), Otterville, Owen Sound, Paisley, Pakenham, Palmerston, Paris, Parham, Parkhill, Parry Sound, Perth, Peterboro', Petrolia, Picton, Pinkerton.

Better Bull Bulletin No. 6 Ontario Cattle Breeders' Association Toronto, Ontario

The Confession of the Scrub Bull

My inheritance is a mean one, and I can only hand on the indifferent qualities I possess. My appearance is not prepossessing, and yet my appearance is the strongest point in my favor. My use in a good herd means destruction; in a fair herd means deterioration; in a poor herd means stagnation and poverty. I occupy the place which should be taken by well bred bulls of good quality. I am dependent for life on indifference or ignorance. I am a curse to Ontario's Live Stock. I have no friends. How long can I endure, if the Country is once aroused against me? The block beckons me, "I MUST GO."

Use Better Bulls. Logo with a dollar sign and the words 'BETTER BULLS' and 'BOOST'.

Table listing dates for various locations including Porquis Jct, Port Carling, Port Elgin, Port Hope, Port Perry, Powassan, Priceville, Providence Bay, Queensville, Rainham Centre, Rainy River, Renfrew, Riceville, Richmond, Ridgetown, Ripley, Roblin's Mills, Rocklyn, Rockton, Rockwood, Rodney, Rosneath, Rosseau, Russell, St. Mary's, Sarnia, Sarnia Reserve, Sault Ste. Marie, Schomberg, Seaforth, Shannonyville, Shedden, Sheguiandah, Shelburne, Simcoe, Smithville, South Mountain, South River, Spencerville, Springfield, Sprucedale, Stella, Stirling, Straffordville, Stratford, Strathroy, Streetsville, Sturgeon Falls, Sunderland, Sundridge, Tara, Tavistock.

Table listing dates for various locations including Teeswater, Thamesville, Thedford, Thessalon, Thorndale, Thorold, Tillsonburg, Tiverton, Toronto (Can. National), Tweed, Udora, Underwood, Utterson, Vankleek Hill, Verner, Wallaceburg, Wallacetown, Walsh, Walter's Falls, Warkworth, Warren, Waterdown, Waterford, Watford, Welland, Wellandport, Wellesley, West McGillivray, Weston, Wheatley, Wiaraton, Wilkesport, Williamstown, Winchester, Windham, Wingham, Wolfe Island, Woodbridge, Woodstock, Woodville, Wyoming, Zurich.

Gossip. The Dryden-Miller Sale.

It is certain that never before in the history of Shorthorns in Canada, has a more important offering been scheduled for the public sale-ring than the Dryden-Miller offering of imported cattle advertised for July 21. The large number of animals selling is, in itself, out of the ordinary for a one-day sale in Canada, but the quality of the offering throughout may well be looked upon as being just as exceptional as the 120 in number which are selling. With a half dozen exceptions, the entire offering is made up of imported cattle, all of which were carefully chosen from the best Scottish breeding establishments and are now consigned to the sale-ring under what is probably the most liberal guarantee which has ever been attached to a public offering in Canada. The individuality of each of the 120 lots will probably be found of more importance on sale day than that of any half dozen or more lots which are outstanding among them. There are, of course, a number whose individuality and type stand well above others, but as seen recently by an "Advocate" representative, the quality throughout was found so uniformly good, that individual mention, at this time at least, may well be dispensed with. Of the 100 cows selling only two in the offering are above five years of age, and sixty-five of the number, either have calves at foot or are due to freshen within a few days, all to the service of the old country sires. Others had been safely settled in service in Britain and are due from sale time on to early fall, and it is almost impossible to sum up the value of these breeding females to the Canadian breeders who will acquire them at their own price on July 21. In every instance the pedigrees attached to them will be found full of fashionable present-day breeding, and in nearly every instance the breeders listed on these pedigrees will be found to be Scotland's best. The entire offering will be selling in average breeding condition only, and when contending for them in the open market, Canadian breeders will do well to keep in mind that they are the best of two importations, all guaranteed to be breeders and sold subject to the 60-day retest guarantee against tuberculosis. In arranging accommodation for visitors on sale day, Messrs. Dryden & Miller have done everything possible to make everyone comfortable. A huge tent will form the sale arena, and a special train has been ordered from Toronto, which will leave for the farm immediately upon the arrival of all important morning trains from west and southern points, returning to Toronto the same evening after the close of the sale. All requests for catalogues should be addressed to W. A. Dryden, Mapleshade Farm, Brooklin, Ont.

# Important Auction Sale of WORLD'S RECORD STOCK

TO BE HELD AT

## Waterville, Quebec, July 17th, 1920

I purchased the herd, 40 head of cattle, that produced Plain Mary, World's Champion Jersey cow, from Kelley & Cossar, Bangor, Me.; 16 of these, close up to the Champion cow, will be sold. Also in a car from the herd that produced Successful Queen, a number of three-quarter sisters and their sons will be sold. A number of fine bulls, cows and heifers of Sophie Tormentor stock and other strains will be sold. A total of 58.

All enquiries will be answered and catalogues will be promptly sent to anyone interested.

Sales Manager, THOMAS IRVING, Ottawa, Ont.

**F. G. GALE, Proprietor** - **Waterville, Quebec**

### Gossip.

July 21st at Mapleshade.

In giving hear this short summary of the Dryden-Miller offering to be sold at Mapleshade Farm, Brooklin, Ont., on July 21 it is impossible to mention in any great number the outstanding females of which there are so many. As has been previously stated, 100 of the 120 females listed, are two, three and four-year-old heifers, and only three or four individual cows in the entire offering are above five years of age. By this time, no doubt, many breeders have already received a catalogue of the sale and after seeing the offering itself, we have no hesitation in calling their attention to a few of the lots which will hold more than ordinary interest for them on sale day, if they appreciate the best and are prospective buyers of good cattle. Charming Undine, a big seven year old roan cow of Undine breeding, and got by the Bruce-bred sire Winning Gift, is probably the most outstanding individual of all the cows selling. She has tremendous scale, carries plenty of the best of Shorthorn character and sells with a June bull calf at foot which is sired by Secret Light, the great young Secret-bred son of Archer's Hope. Lady Violet 2nd, a five-year-old cow bred by Henderson of Perthshire, and Augusta Pride, a four-year-old roan cow bred by Bruce are the next two oldest imported cows selling, the latter, although probably too thin in flesh to bring value, should prove one of the best breeding propositions in the sale, and will be selling with a red bull calf at foot, which is sired by the Duthie-bred bull, Collynie Count Royal. Then comes, a whole line-up of three year-old heifers, among which are Countess Broadhooks 3rd, a nicely colored roan got by the Anderson-bred sire, Clifford King, and selling with a roan bull calf at foot, which is sired by a Cameron-bred bull Claret 2nd, another three-year-old heifer, carries a strong Claret pedigree, and came out with a former importation as a two-year-old. She is probably one of the best bred things in the sale, and is due in October to a Missie-bred son of Archer's Hope. Lawton Daffodil 2nd, still another of the same age, is a dark roan show heifer, got by Douglas Chieftain, and comes from the great Patterson herd at Invernesshire. Lady Ramsden 2nd, also a three-year-old is one of the best grown heifers in the sale and sells with one of the best bull calves at foot, which will be found in the sale. Countess Julia, the same age, is a striking heifer, bred by Durno and sired by the Anderson-bred bull, Royal Count. She too, has a bull calf at foot which is sired by one of the herd sires now used at Collynie. Thurstin Gipsy Queen, a roan Goldie heifer, may well be said to be one of the best three-year-olds in the offering and also has one of the best roan heifer calves at foot, which will be in the sale; and Countess 21st, now carrying her first calf, is probably one of the best two-year-old heifers listed. Of special interest to all and what promises to be one of the big features in the sale, is a group of 10 to 15 months' heifers, 14 of which are imported and 4 of which are Canadian bred.

## Your Tractor is Waiting



**YOU** farmers who own tractors—why let your tractor stand idle while a custom thresherman threshes your crops? An idle tractor represents inactive capital—an investment on which you are paying interest. And a custom thresherman represents grain profits shared with someone who had no part in the actual production of your crops.

Your tractor is waiting for an **International thresher**—waiting to save threshing fees and losses that are so often sustained through careless handling of your crop by disinterested threshing crews or through shelling or sprouting of grain left standing in the shock waiting for a delayed custom threshing outfit.

A 10-20 tractor will handle a **22 x 38 International thresher** with all attachments, and a 15-30 will furnish ample power for a **28 x 46 separator**. These light threshing outfits are just the size for individual threshing on the average grain farm, and for neighborhood service. When you are through threshing your own crop, you can make a good profit threshing for your neighbors.

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HAMILTON CANADA

WESTERN BRANCHES - BRANDON WINNIPEG MAN. CALGARY EDMONTON LETHBRIDGE ALTA.  
EASTERN BRANCHES - HAMILTON LONDON OTTAWA ONT. MONTREAL QUEBEC QUE. ST. JOHN N.B.

The Canadian-bred heifers can be relied upon to keep up rather than pull down the average for the imported ones and taken collectively, this lot of heifers without doubt make up the greatest aggregation for age ever sold in one sale ring on the continent. All carry splendid pedigrees, and while all

are selling as open heifers, every one must prove, and is sold to be, a guaranteed breeder. Regarding the Canadian bred part of the offering, which numbers less than one dozen lots, very little need be said. The breeding and the individuality of them, as may be expected, is far above the average, or they would

not have found their way into this sale. Beauty 37th, a seven-year-old Marr Beauty cow, the only mature cow among them, is due in October and now has one of the best bulls at the farm raised last year. Princess Royal 32nd, a nicely-bred roan three-year-old, is the next oldest. Crocus 17th, a good two-year-old heifer got by Archer's Hope, selling with a Duchess of Gloucester bull calf at foot, and a red August Augusta bull calf, got by an imported Durno-bred bull completes the list of Canadian cattle. The latter will be the only bull listed, other than the calves which will be selling with their dams.

### An Important Jersey Sale.

Have you seen the announcement made by F. G. Gale, Waterville, Quebec, concerning the sale of record-stock Jerseys on July 17? Sixteen head from the herd that produced Plain Mary, the Champion Jersey cow, will be sold at auction as will a number from the herd that produced Successful Queen. Three-quarter sisters of the latter cow and their sons will be offered in sufficient numbers to make the sale attractive from that angle alone, but in addition there will be bulls, cows and heifers of the Sophie Tormentor stock and other worthy strains. Look up the announcements in "The Farmer's Advocate" and write to sale manager, Thomas Irvine, Ottawa, Ont., for catalogue and full particulars.

The National Dairy Council of Canada, organized some months ago, is accomplishing more for the dairy industry than most producers realize. They have been instrumental in keeping the express companies and railway companies from getting increased rates for the shipping of cream and milk, and are continually working in the interests of the industry. The Council purposes starting an educational campaign to endeavor to get the public to appreciate the importance of drinking more milk and eating more dairy products. This would help increase the market for the producer. The work they are doing entails considerable expense, and the Dairy Council are asking every dairy farmer for a contribution of 50 cents a year. This is to be collected through the factories, creameries, distributors, and all who gather milk or cream. Every producer should have the interest of the Council at heart and assist in defraying expenses.

An officer on board a warship was drilling his men.

"I want every man to lie on his back, put his legs in the air and move them as if he were riding a bicycle," he explained. "Now commence."

After a short effort, one of the men stopped.

"Why have you stopped, Murphy?" asked the officer.

"If ye please, sir," was the answer, "O'm coasting."—*Pittsburgh Chronicle Telegraph.*



### SAVORY & MOORE'S BOOK

Messrs. Savory & Moore, Chemists to The King, and makers of the well-known Infants' Food, issue a little Book entitled "The Baby," which gives a great deal of useful information on the Care and Management of Infants.

#### A USEFUL GUIDE

The book contains hints on Feeding, Teething, Development, Infant Ailments, and such matters as Sleep, Exercise and Fresh Air, which are so important for baby's well-being. It also contains a chart for recording baby's weight, a dietary for older children, and recipes for simple, nourishing dishes. It forms, in fact, a useful mother's guide, which should find a place in every home. It is not intended to take the place of medical advice, when such is needed, but it will often serve to allay needless anxiety, and indicate the right course to be pursued.

#### FREE TO MOTHERS

Those who are genuinely interested in the subject may obtain a Free copy of the Book by sending name and address on a postcard to Savory & Moore, P.O. Box 1601, Montreal.

### The new way the sure way -



### 1/2 sugar and 1/2 LILY WHITE SYRUP FOR PRESERVING

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## The Double Track Route BETWEEN MONTREAL, TORONTO, DETROIT AND CHICAGO

#### Unexcelled dining car service

Sleeping Cars on Night Trains and Parlor Cars on Principal Day Trains.

Full information from any Grand Trunk Ticket Agents or C. E. Horning, District Passenger Agent, Toronto.

**For Sale**—Waterous Engine—Portable, develops fifteen h.-p. Ready for silo-filling and threshing. Threshers say: "Best boiler ever unloaded at this station." \$360.00 takes it. Speak before August first. ED. O'HARA, Dalhousie Lake P.O., Ontario

### The Back-to-the-City Movement.

BY DONALD STEWART

Go into any city or town in Canada to-day, and try to rent a house in which to live, and you will find that houses are as scarce as Hebrews in Aberdeenshire. The people of our towns and cities are huddled together like herrings in a box. They are glad to pay \$50 monthly to a landlord for a respectable six-roomed house on a respectable street. Many of them, unable to rent houses, have had to pay exorbitant prices for houses. A respectable house in one of our cities to-day costs at least \$5,000. The average purchaser of such a house is able to put down just a small payment; by the time he has paid the balance and the 7 per cent. interest charge his little home will have cost him \$6,500.

After he has solved the housing problem if he ever solves it, Mr. City Dweller has several other problems to tackle. He finds that milk, butter, eggs, flour, vegetables, shoes, clothes, meat, sugar;—in fact everything he and his family need, are distressingly costly. He must keep up appearances at all costs, and he cannot stint himself and his family at the table. His wages disappear like morning dew in the sunshine. He despairs of saving, and worries secretly as the cost of living steadily rises. The average salaried man in our cities to-day is living in a state of genteel poverty, and, being a salaried man, and living in this enlightened age, he protests but mildly and trusts in Providence and the Government.

The population of the world has not increased during the past three years. The population of Canada has not increased rapidly during the past three years. Then why should cities in all parts of the world be over-crowded? Why should the cities of Canada be so badly overcrowded? An answer is not hard to find. It is that the war started a great movement from rural districts to urban centres. Our people, especially the young and those not rooted securely to the soil, have been seared by the excitement of war. They want crowds, the roar of city traffic, and the stuffy twilight of moving picture shows. Moreover, our young people are not so ready to accept responsibility as they once were. They would rather draw good wages for a short day's work in the city than don overalls and build a farm home out in the country. Like the Romans of old, they are content with "bread and the circus." This, then, is the real reason why our cities are overcrowded.

And what will grow out of such a condition of affairs? I answer without hesitation: "Nation-wide poverty, unemployment and discontent." This country is an agricultural country, and the farmer is already supporting too many urban middlemen and parasites. The farmer can stand a good deal when prices are high, but the burden he is now carrying is just a little more than he can bear. The result is that he is preparing to protect himself by curtailing his activities and expenditures. He will not build a new house or barn if he has to buy lumber at prohibitive prices and pay carpenters, plasters and plumbers prohibitive wages. He will not milk cows if he cannot find men to help him to do the milking. He will not produce hogs if they are not profitable. He will not grow crops that require a great deal of labor. He will curtail his borrowing. Think of what will happen if the farmers of this country do these things. There will be a greater shortage of milk and farm products than exists at present, which means that the salaried man in the city will have to pay more for his milk, butter, eggs, cheese, flour, beef and pork. The manufacturer who sells goods to the farmer will find that the farmer is not buying new machinery and equipment, because he is practising economy, and curtailing his farming activities. The banks will find that there is a poor demand for their money. Everybody will suffer, from the banker to the shoe-maker. Last of all, the worker in the city will suffer, because more men will drift in from the stagnant country, until there are more men in our cities than there are jobs. When the farmer starts to economize, he economizes in earnest. Over night he decides that he will not continue to produce hogs or milk. That means that he buys less equipment from some city manufacturer. The manufacturer begins to get anxious

### Protection and Profit



When money is in a Savings Account in The Merchants Bank, it is absolutely safe from loss, as far as you are concerned. All the time it is here, it is earning interest—so that the bank actually pays you to let it take care of your money. Don't carry unneeded sums on your person or hide them at home. Protect them against loss, theft and fire by opening a savings account.

### THE MERCHANTS BANK

Head Office: Montreal, OF CANADA Established 1884. With its 138 Branches in Ontario, 44 Branches in Quebec, 1 Branch in New Brunswick, 2 Branches in Nova Scotia, 36 Branches in Manitoba, 46 Branches in Saskatchewan, 86 Branches in Alberta, and 12 Branches in British Columbia, serves rural Canada most effectively. WRITE OR CALL AT NEAREST BRANCH.

### PROGRESSIVE FARMERS!

A Branch of this Bank has been established in your locality to render you every banking service.

We suggest that you call on our Manager, and get acquainted. It is our aim to assist progressive farmers in every way. 252

### IMPERIAL BANK

180 Branches in Dominion of Canada.

### Pocket Money

**\$2.00** A WEEK and more if you want to earn it, looks like a lot of money for most boys. You can do this easily if you are earnest and determined to succeed in what you undertake.

#### In Spare Time

One of our boy representatives earned \$30.00 in two months. Another made \$2.50 the first afternoon he tried our plan to help him make money. These are just two examples. Boys, Girls, and grown-up people too, all over Canada, are making money to buy things for themselves by giving us a few hours of their spare time each week.

#### We Pay Well For Their Assistance

and the work they do is easy and pleasant, and they can do it at whatever time they choose.

#### How is it Done?

If you want to know, cut out the coupon at the bottom of this advertisement, and we will show you what others have done and tell you how you can do the same or better.

#### Coupon

THE FARMER'S ADVOCATE AND HOME MAGAZINE, LONDON, ONT.

Gentlemen: I am interested in your plan to make money in spare time—please explain your plan.

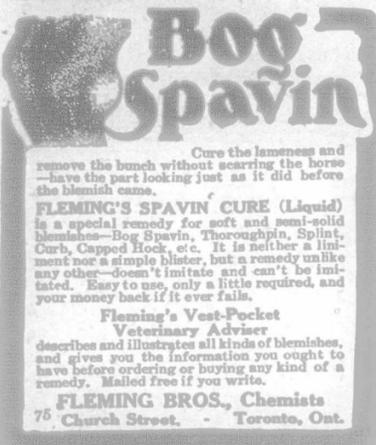
Name of Sender..... Age.....

Address.....

Name of Subscriber.....



**There's a Big Need for**  
**KEATING'S**  
**It KILLS**  
Disease Carriers:  
Bugs, Flies, Fleas  
Reaches



**Boo Spavin**  
Cure the lameness and  
remove the bunch without scarring the horse  
—have the part looking just as it did before  
the blemish came.  
**FLEMING'S SPAVIN CURE (Liquid)**  
is a special remedy for soft and semi-solid  
blemishes—Bog Spavin, Thoroughpin, Splint,  
Curb, Capped Hock, etc. It is neither a  
liniment nor a simple blister, but a remedy unlike  
any other—doesn't irritate and can't be imi-  
tated. Easy to use, only a little required, and  
your money back if it ever fails.  
**Fleming's Vest-Pocket**  
Veterinary Adviser  
describes and illustrates all kinds of blemishes,  
and gives you the information you ought to  
have before ordering or buying any kind of a  
remedy. Mailed free if you write.  
**FLEMING BROS., Chemists**  
75 Church Street - Toronto, Ont.

**Aberdeen - Angus**  
A few typey young bulls and females to  
offer, of choice breeding and individuality.

**Shropshire and  
Southdown Sheep**  
Yearling Rams and Ewes for breeding  
purposes or fitted for the show ring.

*Inspection invited, satisfaction assured.*

**Larkin Farms - Queenston, Ont.**

**SUNNY ACRES**  
**Aberdeen - Angus**  
Present offering—A few young bulls  
ready for service.

**G. C. CHANNON, - Oakwood, Ont.**  
Telephone—Oakwood. Railway—Lindsay.  
G. T. R. and C. P. R.

**Aberdeen - Angus**  
**Meadowdale Farm**  
Forest, Ontario

**Alonzo Mathews**      **H. Fraleigh**  
Manager                      Proprietor

**ALLOWAY LODGE  
STOCK FARM**  
Angus—Southdowns—Collies

Recent addition of Imp. Idealist of Maisemore as  
junior herd sire. Yearling rams and ewes,  
all of superior merit, priced to sell.  
No Collies at present.

**ROBT. McEWEN, R. R. 4, London, Ont.**

**Messrs. A. J. Hickman & Co.**  
Halse Grange - Brackley, England  
Exporters of all Breeds  
of Pedigree Live Stock.

Send for an illustrated catalogue and see what we  
can do for you. Whether you want show  
or breeding stock, buy direct from  
England and save money.

**SUNNY SIDE HEREFORDS**  
12 bulls, serviceable ages; 5 by breed-  
ing; size and individual merit are good  
enough to head any pure-bred herd.  
Females of different ages. Inspection  
invited. They are priced to sell.

**ARTHUR F. O'NEIL & SONS, Denfield, Ont., R. No. 2**  
Phone 27-12 Granton

**Aberdeen-Angus**—Middlebrook Abbot 2nd,  
a prize winner at Toronto and  
Ottawa, for sale, as have had 5 years—price \$500.  
Young bulls and heifers \$175 and up. Get a pure-  
bred sire even if herd grades.—It pays. A. Dinsmore,  
Mgr., "Grape Grange" Farm, Clarksburg, Ont.

as his sales decrease, and finally he is obliged to decrease his staff of workers. As soon as this happens, unemployment becomes general and wages fall rapidly, for a score of men looking diligently for work in a city make all the surplus of labor that is necessary to bring wages down.

It seems to me that this condition of affairs will come to pass in the near future unless the people of our cities come to their senses. We cannot defy natural laws indefinitely, and we are certainly defying natural laws at the present time. We will save ourselves from economic stagnation, unemployment and high living costs if we can get people to join the ranks of the producers. And, speaking in a general sense, the farmers are the only real producers in Canada; the manufacturer of commodities, other than those produced on the farms of this country, could not exist for long if agricultural development ceased. What we need in Canada to-day, and we need it more than anything else just at present, is a Back-to-the-Land Movement. The Back-to-the-City Movement, which is now in full swing, spells disaster for this country if it continues long enough.

The business men of this country, the farmers themselves, the press and our educational institutions, should put forth their best efforts to get people, especially young people, to stay on the land. If nothing is done, the problem will be solved, of course, but it will be a raw solution—the starving of city dwellers and wide-spread stagnation of industry. Nobody wants this sort of thing to happen but history tells us very plainly that it has happened whenever the producers of a country are outnumbered by middlemen.

**Conserving Moisture in Orchard and Garden.**  
(Experimental Farms Note.)  
There are some parts of Canada where the rainfall is so light that it is impossible to grow crops successfully without irrigation, whereas at the other extreme there are districts where the rainfall is so heavy that it is impossible to grow many kinds of crops because it is too wet; but in most places in Canada, while there is usually enough rainfall to grow a great variety of fruits and vegetables successfully, unless the moisture is prevented from evaporating from the soil the fruits and vegetables will suffer badly in some seasons.

In orchards, if there is a lack of moisture just after blooming, the set of fruit will be materially reduced as there will be heavy dropping, hence the importance of beginning cultivation as early as possible, and at this season of the year when there may be a severe drought, cultivation should be very thorough, the surface soil being kept loose by frequent stirring, and thus preventing to a large extent the evaporation of moisture. If moisture is conserved in the early part of the season it will be available for the crop when it is nearing maturity as, unless there is abundance of moisture at that time, the fruit will be small and the market value very much reduced. Hence, during the month of June much attention should be given to cultivation, as late in the month or at the beginning of July it will be necessary to stop cultivation in some places in order that seed for a cover crop be sown. In some parts it is necessary to cultivate until near the middle of July to insure sufficient moisture for the full development of the apple crop.

There are districts in Canada where the rainfall is so light that if the orchards are in sod there will not be enough moisture for the trees, and there are soils in districts where there is a moderate rainfall where there will not be enough moisture if the orchards are in sod.

The thorough cultivation of vegetables is even more important than for fruits. The root system of some vegetables is very shallow, and the plants will soon be affected unless the ground is kept cultivated. After each rain the surface soil should be loosened so as to conserve the moisture and let the air into the ground. Some vegetables, such as celery, require more moisture than others, and these are likely to suffer badly in a dry time. In districts where the rainfall is light and there are usually poor results in the average vegetable garden, very fine crops of vegetables are obtained by good gardeners who keep the surface soil loose practically all the time.—W. T. MACOUN, Dominion Horticulturist.

## Our Tire Prices Have Not Advanced



Do you know you can still purchase absolutely new tires at a tremendous saving? Our tires are the biggest bargain on the market. Our prices are unequalled anywhere in the Dominion—they are far below quotations of other dealers, as we disregard the recent 20% increase.

No matter in what Province you live, you can examine your purchase and convince yourself it is a genuine money-saver before paying a cent. Order by mail or wire, and we will ship tires express paid, C.O.D. to any address east of Fort William. If you are not satisfied, ship them back at our expense.

**LOOK AT THESE PRICES**

| Size     | Plain Tread | Non-Skid Tread |
|----------|-------------|----------------|
| 30x3 1/2 | .....       | \$16.50        |
| 32x3 1/2 | .....       | 17.00          |
| 31x4     | ..... 18.00 | 26.00          |
| 33x4 1/2 | .....       | 30.00          |
| 34x4 1/2 | .....       | 33.00          |
| 35x4 1/2 | ..... 28.00 | .....          |

Other sizes in proportionately low prices. When ordering state size and style—whether "Clincher" or "Straight Wall," plain or non-skid.

**Special 30x3 1/2 Tubes, Guaranteed, \$2.25**

Don't lose this golden opportunity — Buy your season's tires and tubes NOW.

**Security Tire Sales Co.**  
516 Yonge Street, Toronto

## FOUR FEATURES

Each of importance to those considering Life Insurance, are clearly shown in the Report for 1919 of The Great-West Life Assurance Company.

- 1.—THE STRENGTH OF THE COMPANY—the unquestioned excellence of the investments and their profitable nature.
- 2.—THE PROMINENCE OF THE COMPANY—for fourteen years first for Canadian Companies in Canadian Business.
- 3.—THE ECONOMY OF THE COMPANY—exceptionally low expense rates.
- 4.—THE POPULARITY OF THE COMPANY—clearly proven by the record Business written and the record Business GAINED.

Ask for a copy of the Report.

**The Great-West Life Assurance Company**  
Dept. "Z" Head Office, WINNIPEG



## IMPERIAL BRAND HARNESS

Fifty-four years in the Harness business is assurance that our goods are right. We manufacture the strongest and best looking harness it is possible to make and we figure our prices as low as they can be sold for. Ask your dealer for Imperial Brand Harness, made by Samuel Trees & Co. He will recommend it. If your dealer does not handle Imperial Brand, write us direct for prices on any style of our guaranteed Harness.

**SPECIAL** We have made an extra good Team Harness, No. 640, at a special price. **\$57**  
NO. 640 Ask your dealer or write to us about it.

**SAMUEL TREES & CO., LTD. (Established 1866)**  
Manufacturers of Harness and Wholesalers of Auto Supplies  
42 WELLINGTON ST. EAST      TORONTO, ONT.

**BROOKDALE HEREFORD FARM**  
Young stuff for sale at all times. Visitors always welcome and met any time.  
Telephone.      **W. READHEAD, Milton, Ontario**

On the Insulator  
look for



It is your guarantee of efficient, satisfactory and economical spark plug service.

It is the selection of over 300 manufacturers of motor-cars, trucks, tractors and gasoline engines in Canada and the United States.

Could proof of service value be more conclusive?

Champion Dependable Spark Plugs, with our famous "3450" insulators and our patented copper asbestos gaskets, are a combination that insure perfect ignition and dependable service under the most adverse conditions.

They withstand shock, vibration, expansion and hard usage to an unusual degree, in or out of your motor.

Be sure "Champion" is on the insulator of the plug that we have developed for your particular motor.

Any dealer in motor supplies can sell you the right type

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

Largest Factory in Canada making Spark Plugs exclusively



Champion AA-53  
3/8-inch, 18 long  
Price \$1.00

For use in McLaughlin cars, tractors, trucks and stationary engines

102

Questions and Answers.

- 1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
- 2nd—Questions should be clearly stated and plainly written on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

Harvesting Sweet Clover Seed.

When should yellow-blossomed sweet clover be cut for seed? W. K.

Ans.—As a rule, harvesting for seed commences when about three-quarters of the seed pods become dark. Harvesting can be done with the binder, and further operations carried on the same as with grain crops. Handling should be avoided when the straw is very dry, as the seed will shell badly. The threshing and hulling, however, should be done when the straw is dry.

Boy Quits Work.

I hired a boy for nine months, starting March 8, and agreed to let him help his father when he needed him. He has been away about a week each month since he started, and now has left me for good. Can he claim his wages or part of them for the time he has put in? He has left me without help when I need it most. F. R.

Ans.—The boy can rightly claim his wages but he may not legally be entitled to them until the end of the time for which he was hired. You agreed to let him help his father when he wanted him, apparently without any stated time; the boy could now argue that his services were needed at home all the time. We admit that it leaves you in an awkward position, but in no worse than scores of others.

Customer.—"By jove, I am glad to see you back. Has the strike been settled?"  
Waiter.—"What strike, sir?"  
Customer.—"Oh, come now! Where have you been since you took my order?"

Mistress.—"Haven't you any references?"  
Maid.—"I have, but they're like my photographs—none of them do me justice."

Burnbrae Shorthorns

Eighty-three years without change, we have been breeding Scotch Shorthorns. The foundations of many of the best herds in America were laid from our farms.

I am in a position to furnish you with the best in either sex that can be found. High-class young bulls for the breeder and the farmer. Cows and heifers of the finest breeding to start you right, and you cannot afford to start wrong. Every animal that I have sold in two years has been satisfactory, the most of them sold by letter. I can satisfy you with the best in what you want at a price that will give you a chance, and I will pay the freight or express to your station. Augusta Sultan =93092=, one of the greatest living sires at the head of my herd. Write and if possible come and see, it is worth while. Post Office, Telegraph, Telephone and Station is Stouffville, Ont. 30 miles from Toronto.

ROBERT MILLER :: Stouffville, Ont.

PUSLINCH PLAINS SHORTHORNS

Five bulls for sale by Burnbrae Sultan =80325=.

A. G. AULD, - - R. R. 2, - - GUELPH, ONT.

BLAIRGOWRIE SHORTHORNS

3 Imported bulls. 10 Imported females in calf or calf by side. 2 Scotch bred bulls. 5 Scotch bred cows with calves by side.

JNO. MILLER - - (Myrtle C.P.R. and G.T.R.) - - ASHBURN, ONT.

Pure Scotch Shorthorns

Special offering in bull calves and a few choice females. Our herd includes some of the best Scotch breeding in Ontario today—Brawith Bud's, Mina's, Roan Lady's, Cecilia's and Castilla's. Herd headed by the Miss Ramsden sire, Royal Ramsden by Golden Edward. Dam by Royalist. Write or call. JOSEPH BREWSTER :: SEAFORTH, ONT.

Newcastle Herd of Shorthorns and Tamworths for Sale—Three nice bulls, 11 to 13 months old, and several yearling heifers and cows with calves at foot, both sexes, all splendid milking strain. Several Tamworth sows due to farrow in May, June, July. Young stock, both sexes, at weaning up to six months old. All from prize-winning stock. Long-distance 'Phone. A. A. COLWILL, R.R. No. 2, Newcastle.

Spring Valley Shorthorns

—Herd headed by Sea Gem's Pride 96365. We have a number of good bulls for sale, including the Champion Ivanhoe 122760, and his full brother also, an extra well-bred Rosewood and others. Write for particulars. Telephone and telegraph by Ayr. KYLE BROS., Drumbo, Ont.

20 Bulls—SPRUCE LAWN—100 Females—Clydesdales, Shorthorns, Yorkshires. Herd headed by Imported Golden Challenger 122384 a Rubyhill, bred by Earl of Northbrook, by Ascott Challenger, bred by L. De Rothchild. Special bargains in farmer's bulls. Cows and heifers in calf, yearling and heifer calves. Yorkshires either sex. J. L. and T. W. McCAMUS, Cavan, C.P.R.; Millbrook, G.T.R. and P.O., Ont.

Roan Bull—Calved April 23rd, 1919

Sire, Chief Orator =122385= (Imp.). Dam, Spring Beauty =138815= (Imp.). Good enough individually and in breeding to head a good herd. Could spare a few females. J. T. GIBSON, Denfield, Ont.

What is Your Spare Time Worth?

You can make money by securing NEW SUBSCRIBERS to THE FARMER'S ADVOCATE AND HOME MAGAZINE. Write for instructions to THE WM. WELD CO., LTD., London, Ont.

"Hints on the Flax Harvesting."

(Experimental Farms Note.)

Flax when grown for its fibre is always pulled and not cut as wheat, oats or linseed flax. The exact time to uproot or pull the crop so as to secure the greatest financial return from the fibre and seed combined varies according to the conditions of labor and climate. It is not possible, however, to have all the seeds fully matured and yet produce a first grade fibre. When growing the crop for fibre the seed should be considered a secondary product.

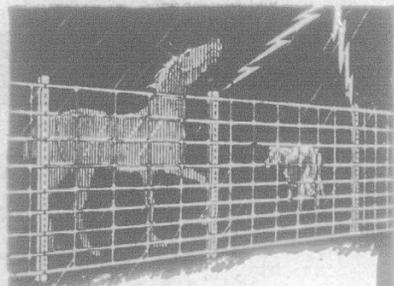
The best yield of both fibre and seed may be obtained if the crop is pulled exactly in the middle of the period between the flowering and final ripening. When the stem is yellow and the leaves have fallen off, the crop may be considered as ready for harvesting. The easiest way for unskilled flax producers to determine when the flax is ripe, or ready for pulling, is to select a few seed bolls, crack them between the fingers and if the seed falls out easily without adhering to the shell, it is then ripe.

Pulling. It is of great importance to keep the tips of the roots well butted when pulling, as this renders the subsequent handling of the flax much easier. Any soil that may adhere to the roots should be shaken off. The bundles should be tied loosely, should be uniform in size and of about eight inches in diameter. About as much flax as can be conveniently caught between the hands should be pulled at a time, grasping it just below the seed bolls with the right hand, thumb downwards, left hand still lower and in the same position.

With unskilled labor great care should be taken to avoid pulling off the seed bolls, as this is likely to occur if the flax becomes entangled. Each handful as pulled should be laid flat on the ground and more flax placed on the top, until there is sufficient to form a bundle or sheaf. Short flax should, if at all possible, be kept separate from the long, otherwise it is detrimental to it when undergoing the scutching process.

R. J. HUTCHINSON, Fibre Specialist.

In our recent report of the Aberdeen-Angus sale at Toronto we gave Heather Lady as being purchased by S. P. Forbes, of Ancaster. This cow was purchased by Mr. Forbes for Mrs. A. Dick-Lauder, Ancaster.



**Fence Posts that act as Lightning Rods.**

A single bolt of lightning flash along the fence wires may kill a dozen or more animals at a stroke. That cannot happen if your fence is strung on

**PRESTON STEEL POSTS**

Besides effectually "grounding" the wire, these posts are completely fire-proof and unbreakable. Write for our Folder which tells how to have a fence that requires no upkeep.

METAL SHINGLE & SIDING COMPANY, LIMITED  
PRESTON, ONTARIO

**SAVE MONEY!**  
IF YOU OWN A CAR

Every automobile owner saves himself much money and a great deal of trouble when he knows all about his car.

Our Automobile Course is particularly designed for car owners. It includes working models and gives diagrams and covers all the intricate points that the average person does not understand. It is exceptionally interesting yet thorough. Here is an opportunity to get accurate mechanical instructions, with your car right before you.

A few spare minutes a day on this course will provide you with a complete practical knowledge of your automobile. It will pay for itself ten times over in one single year.

Details about the course and all particulars, showing how you can acquire this knowledge on easy payments sent free. Send this coupon to-day.

The Canadian Correspondence College, Limited, Dept. L.A., Toronto, Canada. Send me free all particulars of your Automobile Course.

Name.....  
Street or R.R.....Town or City.....

**BOOK ON DOG DISEASES, And How to Feed**

Mailed free to any address by the Author,

**H. Clay Glover Co. Inc.**  
118 West 31st Street, New York, U.S.A.

America's Pioneer Dog Remedies

**English Dual Purpose Shorthorns**

Begin the pasture season by the purchase of a sire which will add value to your calves. For milk and beef. From imported stock of choice breeding. We have a fine choice of bull calves and bulls.

Also English Large Black Pigs. A thrifty breed. Write or call.

**LYNNORE STOCK FARM**  
F. W. Cockshutt, - Brantford, Ont.

**Mardella Dual - Purpose Shorthorns**

Two sappy, strong young bulls, now ready for service, for quick sale. Females all ages. Some bred to The Duke. Dam gave 13,599 lbs. milk, 474 lbs. butter-fat. All have size and quality. Great producers.

**THOMAS GRAHAM, R. 3, Port Perry, Ont.**

**DUAL-PURPOSE SHORTHORNS**

A number of females, some with heifer calves by their side. Also Dorset Horned sheep.

**VALMER BARTLETT - Canfield, Ontario**

**Questions and Answers.**  
Miscellaneous.

**Material for Wall.**

How many cubic yards of stone will it take for a stable wall 4 feet deep and 36 by 60 feet? How many cubic yards will it take to floor it 1½ feet deep? How much cement will it take for a wall 36 by 30 feet and 2 feet deep?

T. M.

Ans.—It will take about 30 cubic yards of stone for the wall, and 120 cubic yards for the floor. The 2-foot wall will require approximately 11 barrels of cement.

**Night Flowering Catch Fly.**

What is the name of the enclosed weed?

E. H. M.

Ans.—The weed which was received at this office was a sample of night flowering catch fly, a weed which is not overly troublesome where a regular crop rotation is followed. It is especially objectionable in fields intended for clover seed production. Deep cultivation and hand pulling to prevent the plant from seeding will rid the field of this weed.

**Why Tanks Not Cleaned.**

When a dairy inspector has visited a cheese factory twice this summer, and where the whey tanks have not been cleaned out for the season, is he doing his duty towards the patrons when he does not enforce the cleaning out of the tanks?

K. C.

Ans.—We think not. It is important that the tanks be cleaned frequently in order that the whey will be in the best condition to feed to hogs.

**Five-finger.**

What is the enclosed plant?

C. C.

Ans.—This plant, characterized by its 2-ft. long, erect, hairy stems, palmately divided leaves and yellow flowers, is known as the Erect Five-finger, also as the Sulfur Potentilla—*Potentilla recta* in botany. It is a plant of European origin, but now introduced into many places in this country. It does not become noxious as a weed unless it is given very favorable opportunity.

J. D.

**Mites in Hen-house.**

What will rid a hen-house of lice and mites? What should be put on young turkeys for lice?

A. S.

Ans.—The hen-house should be thoroughly cleaned, and nests, feed boxes, etc., which are movable, taken out. Then spray the hen-house with kerosene emulsion, or with any good spray to which kerosene has been added. This should be applied with a spray pump, or else forced well into the cracks and crevices with a brush. A three-per-cent. solution of crude carbolic acid, zenoleum, creosote etc., may also be used for disinfecting and cleaning the pen.

**Keep of Horse.**

A hired B first of April, 1919, for one year, and was not to keep horse. On the 26th of January B bought horse and wanted A to keep it; and A said he would keep it the rest of the year on condition that B hire to A for 8 months longer, beginning 1st April, 1920; and B signed a contract for 8 months longer. On June 2nd B left.

1. Can A charge B for horse? (It got hay and grain.)
2. If so, what charge?

A. F.

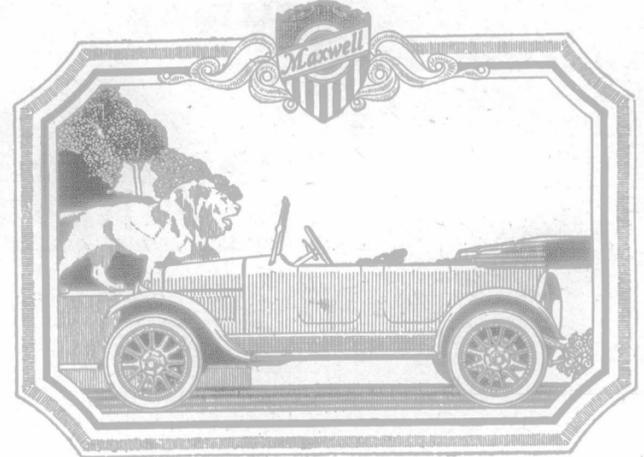
Ans.—1. Yes.  
2. Whatever is reasonable, according to amount fed figured at cost of hay and oats.

**A Tree Nuisance.**

We have a neighbor on the next farm to us who set some tall poplar trees along the line fence some twenty-five years ago. They became a nuisance to us—both the roots and tops. They are on our side of the line fence. It is his half of the fence. What can we do to get rid of them? Is it lawful for us to cut away the roots and destroy the trees? Or should we compel him to do so?

A. W.

Ans.—We think that you should first inform your neighbor that these trees have come to be a nuisance and request him to remove same. In the event of his failing to comply with such request, it would then be in order for you to remove the trees yourself.



An Analysis of the "Road Speed"

of a

**MAXWELL**

is a tribute to its special steels

Men driving larger cars have often wondered at the "road speed" of a Maxwell.

True, in an open, straight stretch they have run away from a Maxwell.

But in any "piece of going" (and we have many such roads in Canada) in which hills, turns, curves or rough roads enter into the general average, they do not outrun a Maxwell.

The reason for this is the special steels in a Maxwell. They are made to Maxwell's own formulae, and make possible construction combining great strength with light weight.

The lightness of the weight enables a Maxwell to take a turn with more ease and less slowing up, come down a hill under better control, ascend a hill as well, and make more time over a rough piece of roadway.

The strength of its steels enables a Maxwell to stand equally as well, or better, side strains, road unevenness, etc.

In other words, a Maxwell makes speed when a larger car cannot, and thus evens up to a high average its "road speed" without breaking the speed laws.

This ability in a Maxwell is one of many that is winning new friendships daily. Nearly 400,000 of them to date; in another year 500,000.

**Maxwell Motor Company of Canada, Limited, Windsor, Ont.**

**Reyburn Milking Shorthorns**

Herd headed by Victor 3rd, Imp., Grand Champion at Erie Show and Congress. Herd average over 9,500 lbs. milk per cow. Choice cows, heifers and herd-heading sires for sale.

**R. R. WHEATON** :: **THORNDALE, ONTARIO**  
Long-distance phone and telegraph.

**DUAL-PURPOSE SHORTHORNS**

Herd headed by Dominator 106224, whose two nearest dams average 12,112 pounds of milk in a year. Bulls from 1 to 6 months old for sale, also a cow or two. Inspection of herd solicited.

**WELWOOD FARM - Farmer's Advocate - LONDON, ONT.**

**MILKING SHORTHORNS** Young stock from R. O. P. cows by imported sires.  
**BERKSHIRE PIGS** Choicely bred sows and boars, all ages. Can supply pairs, not akin.

**J. B. PEARSON, Manager - Credit Grange Farm - Meadowvale, Ont.**

JULY 8, 1920

AUTOMOBILES, FARM MACHINERY AND FARM MOTORS

The Farm Water Supply.

The improvement of farm water supplies, a matter long neglected by American farmers, is now in some degree attracting the consideration it merits. It is becoming widely recognized that in many cases the farm water supplies are perhaps dangerously polluted. In addition, those who are so unfortunately situated as to be required to carry water from the well to the house are becoming extremely weary of this drudgery. Every farm must have a water supply, and it is safe to say that a plentiful supply of clean water, made available where most used by the mere turning of a faucet, or at the worst by pumping without carrying, is one of the main factors in making modern farm home life desirable.

Securing clean water in the farm house is a somewhat different problem from that of providing a city or town supply. In the latter case the purity and availability of the water supply is taken care of by engineering and public health officials; in the former a personal understanding of the dangers which lie in a polluted water supply is necessary.

Perhaps the most important consideration in connection with the farm water supply is to get clean water. In the past clean water has usually meant clear water. But it is now known that water to be clean must not only be clear, but it must be pure. Water may be vilely polluted, and at the same time be beautifully clear and sparkling. It may be clear and yet contain the invisible and deadly germs of typhoid fever or other intestinal disorders. It may also contain considerable poisonous matter in solution. A polluted water supply is evidence of the existence of bad sanitary conditions, which it is of the utmost importance to remedy.

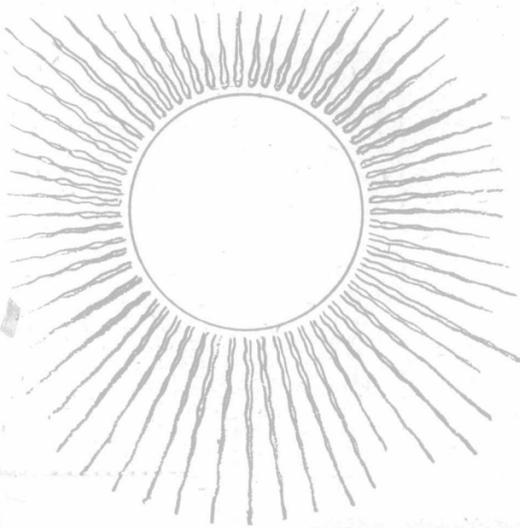
The main sources of water for farm use are streams, springs, cisterns and wells. Perhaps the majority of supplies are derived from wells and cisterns, although springs are often used. In rarer instances, where other supplies are difficult to obtain, stream water is used.

With the growth of population and development of industries there is progressive pollution of streams, so that in the more thickly settled regions streams not already contaminated or subject to pollution are very rare. Surface water supplies from small streams should, therefore, never be used for household purposes unless no other supply is available. In the event that it must be used such water should be clear and should be thoroughly boiled. Other processes of purification, such as filtering, treating with chemicals, or distilling, are also sometimes used, but are generally impracticable from the farm standpoint. Under ordinary conditions surface water of any kind should be looked upon with considerable suggestion.

The well is the most commonly used source of farm water supply. It may be a shallow dug or driven well or a deep dug or bored well. It may be said, however, that the majority of shallow-dug wells on farms where contamination is present are contaminated. This has been abundantly proved by investigations. The State of Illinois has made extended surveys of its farm water supplies, and the report of these surveys shows that out of a large number of typical shallow wells examined three-fourths were dangerously polluted. The boards of health of Indiana, Minnesota, Missouri, North Carolina, Virginia and other States have published official statements no less startling. In a large number of cases it is stated that pollution might have been prevented by proper precautionary measures.

Contaminated water is, however, by no means confined to shallow wells. Contaminated surface water often gains access to deep wells at the top in the

# When days are hot and Pastures short



—and your cows spend most of the day under the trees, unless you supplement their scant pasturage with a feed that will offset these hot weather conditions, a **SHRINKAGE IN YOUR MILK CHECKS** is bound to follow.

Cows that are well nourished in the summer will keep up their milk flow during the hot months and will also respond with a greater milk yield in fall and winter than cows that are forced to depend for their summer feed on short, dried up pasturage.

## SCHUMACHER FEED

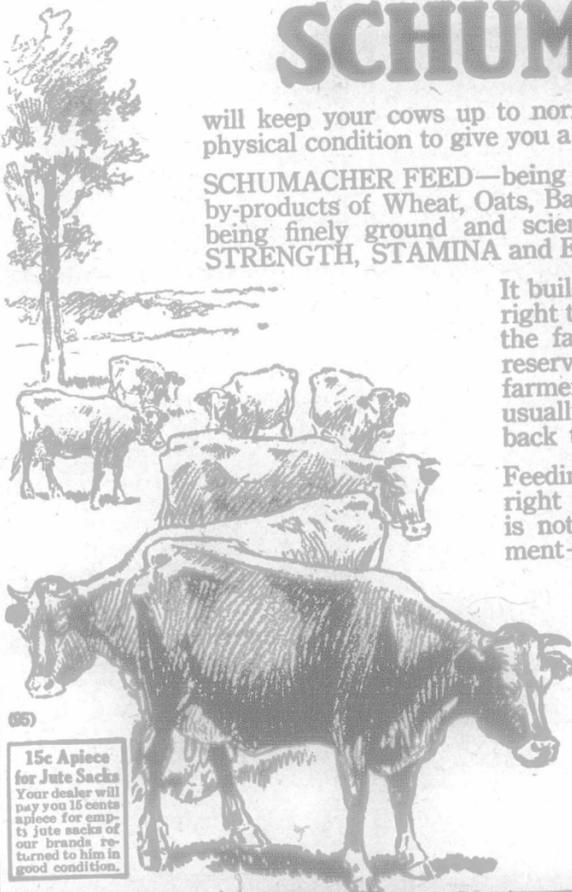
will keep your cows up to normal production all summer long and keep them in good physical condition to give you a larger flow this fall and winter.

SCHUMACHER FEED—being a grain ration composed principally of specially selected by-products of Wheat, Oats, Barley and Corn, together with Linseed Meal, the whole being finely ground and scientifically blended—supplies cows with the **ENERGY, STRENGTH, STAMINA** and **ENDURANCE** so much needed in hot weather.

It builds up "constitutional" powers, keeps cows "going strong" right through the hot summer months and brings them up to the fall and winter season well fortified with abundance of reserve energy to keep up their maximum flow, thus saving farmers and dairymen the expense of the "heavy feeding" usually required to get their cows back to normal condition.

Feeding SCHUMACHER FEED right through the summer months is not an expense—it's an investment—the added returns in milk production and the improved health conditions of your herd pays you big dividends on the small amount you pay for the feed.

SCHUMACHER FEED is not only good for dairy cows, but it is also a splendid feed for dry cows, young stock, horses and hogs. Ask your dealer for SCHUMACHER. If he can't supply you, write us. (C-95)



15c Apiece for Jute Sacks Your dealer will pay you 15 cents apiece for empty jute sacks of our brand returned to him in good condition.

### The Quaker Oaks Company

PETERBOROUGH & SASKATOON CANADA

#### A NEW IMPORTATION OF 40 SCOTCH SHORTHORNS

arrived home Dec. 17th. From our herd of 125 head we can offer a large selection in choicely-bred bulls and females. Anyone in need of foundation stock may find it to their advantage to look over our offering before making any purchases.

J. A. & H. M. PETTIT :: FREEMAN, ONTARIO  
Burlington Jct., G.T.R., only half mile from farm.

#### SPRUCE GLEN SHORTHORNS

We have a few choice, well bred, thick, deep level, mellow young bulls of breeding age for sale; also heifers in calf to a right good sire. Write for particulars. Dundalk, Ontario  
JAMES McPHERSON & SONS

Imported Scotch Shorthorns For Sale—Three imported bulls, one yearling, one two-year-old and our three-year-old herd sire; also a choice two-year-old Orange Blossom of our own breeding, and three well-bred bull calves a year old. Would consider exchanging an imported bull for Scotch females.  
R. M. MITCHELL, R.R. No. 1, Freeman, Ont.

Pear Lawn Shorthorns, Hackneys and Yorkshires—One imported in dam Miss Ramsden one Golden Rose bull, 6 months, imp. sire and dam; one bull, a Flattery, 12 months, imp. sire. A few young cows with calves at foot. One imported Hackney stallion, A 1; two Hackney stallions rising one year; one registered Clyde mare; also Yorkshires at weaning time. HERBERT J. MILLER, Keene P.O., Ont. Stations—Keene G.T.R., Indian River C.P.R. Peterborough County

#### Maple Shade SHORTHORNS

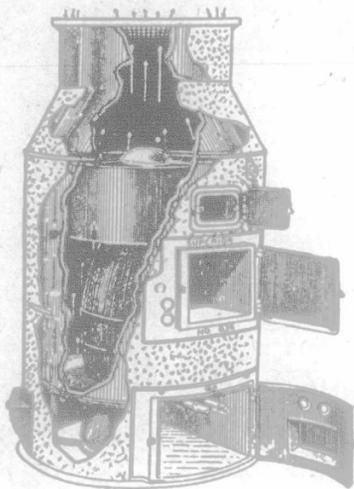
A dozen young bulls imported and my own breeding at moderate prices.

W. A. DRYDEN  
Brooklin - - Ontario

Scotch Shorthorns—Herd headed by Master Marquis -123326-, by Gainford Marquis. Stock of either sex for sale. Also Oxford Down ewes.

GEO. D. FLETCHER, Erin, R.R. 1, Ont.  
"Advocate" Advt. Pay.

## The Pilot Superior System is Healthful and Sanitary



The PILOT SUPERIOR is a very sanitary furnace. No dirt nor dust can come through the register, because the heat from the PILOT SUPERIOR is generated directly from the hot castings and circulates by nature's method through the register. All castings are air-tight, and there are no leaky joints or pipes to take up the dust and gas produced in the firebox. Curtains, draperies and other fabrics that are easily soiled, remain fresh and clean for a remarkably long time in PILOT SUPERIOR-heated homes. A PILOT SUPERIOR PIPELESS FURNACE can be installed in six hours.

Manufactured by  
**The Hall Zryd Foundry Company, Limited**  
Hespeler, Ontario

1870 Our Golden Jubilee 1920

# 2 + 2 = 4

Many men carry insurance that does not amount to more than a year's salary; they seem to think that there is magic in insurance funds so that 2 plus 2 will have the value of 5 or 8.

A dollar of insurance money will not go any farther than a dollar from our pay envelopes.

Is your insurance sufficient or as near to being sufficient as you can make it? Remember that 2 + 2 = 4 after you are gone, just the same as it does to-day. If possible

Put on More Insurance

**The Mutual Life of Canada**  
Waterloo-Ontario

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## Cream Wanted

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

**ONTARIO CREAMERIES Limited**  
LONDON ONTARIO

**20,000 lb.—Holstein Bulls—20,000 lb.**  
Write us for extended pedigrees and full particulars of 1920 bulls whose dam and sire's dam average over 20,000 lbs. milk and 850 lbs. butter in R.O.P. R. HONEY & SONS, Dartford, Ont.

**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 Station, C.T.R.

same manner that it gains access to shallow wells. Poorly-protected shallow wells are sometimes polluted through the soil, although this does not occur as often as is commonly thought. Deep wells, if not cased, may be likewise polluted through the soil or through rock fissures, and if cased, surface water may follow the casing to the bottom and thus enter the well. However, deep wells are, as a rule, less likely to be polluted than are shallow wells.

The soil in which a well is sunk may more or less affect the extent to which it is polluted. Often a shallow well in a tough clay or hardpan soil which extends to the water-bearing stratum is fairly safe from pollution if protected at the surface. Deep wells in very sandy soils, if protected at the top, are not often polluted. Perhaps the most dangerous wells are those in a limestone region. The limestone often contains open underground passages or channels. These channels frequently lead to open fissures or sinks at the surface, into which filth, sewage, garbage and other contaminating matter is dumped. Rain water can carry these impurities directly to wells through the channels.

Obviously the logical first step in securing a clean well water supply is to remove all the sources of possible contamination. Among the worst of these are the open privy vault, the leaching cesspool, and barnyard filth. A well in ordinary pervious soil located lower than, and within 100 feet of, any of these is almost certain to be polluted. Even though the well is located on higher ground than these sources of contamination, heavy pumping or dry weather may so lower the ground-water level that it will reach the zone of contamination and thus pollute the well. It is evident, therefore, that the open privy vault and leaching cesspool should be discarded and a sewage purification system, or at least a sanitary privy, be used instead. Sewage, garbage, manure, or other waste should never be dumped into sinks or fissures, and most certainly never into old abandoned wells. An old well used for this purpose is very likely to communicate directly with the water-bearing stratum from which other wells in the immediate vicinity draw their supply. Slops or waste water should never be thrown out of the back door or window on to the ground. If the pigs and chickens must run at large they should at least be kept away from the well. A box built around the pump and filled with manure in winter is an extremely unsafe way to prevent the pump from freezing.

Concrete manure pits, impervious floors, and water-tight drains are desirable features for farm buildings. If these are beyond the farmer's purse the manure pile should at least be placed a safe distance away from the well.

The well itself should be located as high as possible with respect to buildings, stock pens and chicken yards, and as far away from all sources of contamination as convenience and local surroundings will permit.

The final safeguards to a well-water supply are to give the well an impervious lining of tile, cemented brick, iron casing, or concrete, and to provide a water-tight curb, not only to keep out surface wash, animals and vermin, but to prevent the pump drip and dirt from shoes and buckets from entering the well. It is well here to suggest that those who use the well should attempt to remove the most of the dirt from their shoes before stepping on to the well curb.

Concrete makes a good lining for a dug well, owing to the fact that if a mixture of mushy consistency is used an almost water-tight bond can be effected between the soil and the concrete, thus preventing in a measure the entrance of surface water to the well by this route. A concrete well curb can always be used with advantage. Concrete drains to carry away the pump drip and surface wash, are desirable.

Deep wells are usually lined with smaller tile or with iron casing. Small tile castings, however, where the joints are not cemented, allow contaminated surface and soil water to enter the well. The iron casing is more frequently used in deep bored or punched wells of smaller diameter, being usually driven into place. With such a casing the well can be polluted only at the bottom.

Ordinarily for shallow water supplies a driven well is safest and the most satisfactory, particularly if the soil is sandy. It consists mainly of a point and screen

## Hamilton House Holstein Sires

Our young bulls of serviceable age have all been sold but we have a number of the best young calves we have ever bred. All are from dams with good combination records for both milk and butter. Several are up to 700 lbs. of milk and 81 lbs. of butter for 7 days. If you are interested in a good calf, write or see them now—they can be purchased at considerably less than we will be pricing them next winter.

**D. B. TRACY** - (All Railways Bell Phone) - **COBOURG, ONT.**

## Hospital for the Insane, Hamilton, Ont.

**HOLSTEIN BULLS ONLY FOR SALE**

Senior sire is from one of the best sons of King Segis Alcartra Spofford. Junior is grandson of the noted May Echo Sylvia, by Champion Echo Sylvia Pontiac.

Write to the Superintendent for prices, etc.

## Raymondale Holstein-Friesians

A herd sire of our breeding will improve your herd. We have sons of our present sire, Pontiac Korndyke of Het Loo (sire of \$12,750 Het Loo Pieterje), and also sons of our former sire, Avondale Pontiac Echo. Several of these are of serviceable age, and all are from good record dams. Quality considered, our prices are lower than anywhere else on the continent. Their youngsters should not remain long. Write to-day.

**RAYMONDALE FARM, Vaudreuil, Que. D. RAYMOND, Owner, Queen's Hotel, Montreal**

**"Premier" Holstein Bulls Ready for Service**—I have several young bulls from dams with 7-day records up to 32.66 lbs. of butter, 755.9 lbs. of milk, with 110 lbs. of milk in one day—over 3,000 lbs. in 30 days. All are sired by present herd sire, which is a brother to May Echo Sylvia. Step lively if you want these calves.

**H. H. BAILEY, Oak Park Farm, PARIS, ONT.**

### HOLSTEIN BULLS FROM 30-lb. DAMS

If you want 30-lb. bulls—good individuals—and priced right—you should see my present offering. I also have lower priced bulls, and am offering females bred to Ormsby Jane Burke. Correspondence solicited.

**R. M. HOLBY, Manchester C.T.R., Myrtle C.P.R., PORT PERRY, ONT.**

**Cloverlea Dairy Farms**—Herd headed by King Pontiac Rauwerd, who combines the blood of Canada's greatest sires and dams. His offspring are a choice lot. We have stock for sale, both male and female, 75 head to choose from. Consult us before buying elsewhere. Could book a few more cows for service to "King."

**GRIESBACH BROS., L.-D. 'phone, Collingwood, Ont.**

### WALNUT GROVE HOLSTEINS

I am offering a choice lot of bull calves sired by May Echo Champion, who is a full brother of world's champion, May Echo Sylvia; also a few cows just fresh.

(Take Radial Car from Toronto to Thornhill). **C. R. JAMES, Richmond Hill, R.R. No. 1, Ont.**

**Sylvius Walker Raymondale** is the sire of the majority of our young bulls now listed. If you see these calves you will appreciate them. Their dams are mostly daughters of King Segis Pontiac Duplicate. Don't delay if you want a good bull at a right price. We are also offering females.

**R. W. WALKER & SONS, Port Perry, Ont.**

**9 HOLSTEIN BULLS 9**—Every one a show calf. Any age up to 14 mos. Dams untested, or with records up to 24-lb. 4-year-old, 22-lb. jr. 3-year-old. All sired by Gipsey Pontiac Cornucopia, that perfect 30-lb. sire, who is a grandson of May Echo Sylvia. Priced for quick sale.

**JOSEPH PEEL, Port Perry, Ont.**

**Elderslie Holstein-Friesians**—Am all sold out of heifers, just have three bull calves left, from four to six months old. They are sired by Judge Hengerveld De Kol 8th, a 32.92-lb. bull. The dam of one is a 20.225-lb. cow. Write for prices and come and see them.

**ARCHIE MUIR, Elderslie Farm, Scarboro' P.O., Ont.**

**Cedar Brook Farm Holsteins**—(Farm one-half mile from Inglewood Station, C.P.R., G.T.R.)—We are offering two young sons of Highland Pontiac Sylvia (his two nearest dams average 36.51 lbs. of butter, 786.4 lbs. of milk), a son of Avondale Pontiac Echo—the \$50,000 son of May Echo Sylvia. We guarantee these calves, and we are going to sell them quick. Write, or call and see them—don't delay.

**CEDAR BROOK FARM (B. Misener, Manager) Inglewood, Ont.**

## BRAMPTON JERSEYS

THE LARGEST JERSEY HERD IN THE BRITISH EMPIRE

At Toronto Exhibition, 1919, we won twenty-five of twenty-seven first prizes. We now have for sale first-prize young bulls from R. O. P. dams, as well as females of all ages.

**B. H. BULL & SONS :: Brampton, Ontario**

### ALL BULLS OF SERVICEABLE AGE SOLD

A few young bulls sired by Financial Raleigh King, son of the \$6,000.00 Financial Beauty King for sale, from R.O.P. dams.

**JAS. BAGG & SONS, (Woodbridge, C.P.R., Concord, G.T.R.) EDGELEY, ONT.**

**Laurentian Producing Jerseys**—The oldest bull we have at present is a year old youngster, sired by our herd sire, Broadview Bright Villa, No. 5630, and from Brampton Astoria, one of the best imported cows in the herd. We also have others younger of similar breeding, as well as a few bred heifers for sale. **FREDERICK G. TODD, Owner, 801 New Birks Bldg., Montreal, P.Q. Farm at Morin Heights - F. J. WATSON, Manager**

**The Woodview Farm Jerseys**—CANADA'S MOST BEAUTIFUL JERSEY HERD Herd headed by Imported Champion Rower, winner of first prize with five of his daughters on the Island of Jersey, 1914, second in 1916, and again first in 1917. We are now offering for sale some very choice bull calves, ready for service, sired by imported bulls and from Record of Performance imported prize-winning cows. Also some cows and heifers. Prices right. We work our show cows and show our work cows.

**DON HERD OF PRODUCING JERSEYS**  
We have three young bulls of serviceable age—good individuals and priced right. Could also spare a few choice bred heifers. Visitors welcome.  
**D. DUNCAN & SON, TODMORDEN, ONT.**

**Stockwood Imported and Ayreshires**—Write me for your next herd sire. I have my own herd sire, Killoch Gold Flake (imp.) 51225, and from imported dams that are still in the herd. Call and see the kind we breed. Also pricing a few young cows safe in calf to herd sire.

**D. M. WATT, St. Louis de Gonzague, P.Q.**

DOES YOUR NEIGHBOR SUBSCRIBE TO  
**The Farmer's Advocate and Home Magazine?**

If he does not, collect the sum of \$1.50 from him, and we will advance the date shown on your own label **SIX MONTHS FREE.**

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attached to a pipe which is driven until the water-bearing stratum is encountered. The screen on the point prevents coarse matter from being pumped up.

From what has been said regarding wells it may be concluded that the watchword should be "Keep the surroundings clean and protect the well from surface wash and soil drainage." For further safety it is a good idea to have the water tested occasionally for signs of pollution.—U. S. Dept. of Agriculture Year Book.

**Questions and Answers.**  
Veterinary.

**Fatality in Bull.**

Bull refused to eat for about 10 days. He voided no excrement. I gave him 3 doses of salts with ginger, saltpetre and soda. He died, and after death a lot of stuff ran from nostrils. Was this impaction of the rumen, and was he properly treated?  
A. H.

Ans.—This was constipation. No doubt both stomach and intestines were affected. It is possible there was some obstruction in the intestine. It would have required a careful post mortem to determine the exact condition. A veterinarian could probably have diagnosed definitely by the symptoms, but from the symptoms you mention this is not possible. You were right in the administration of Epsom salt, ginger and soda, if you gave the proper doses, but the saltpetre should have been left out. About 2 lbs. Epsom salt and 1 oz. ginger should be given at first, and this followed by 2 drams nux vomica 3 times daily. If the action of the bowels were not established in about 24 hours 1½ pints of raw linseed oil should have been given, and this alternated with a pound of Epsom salts with ginger about every 12 hours and the nux vomica continued. Rectal injections of warm, soapy water would probably have helped.  
V.

**Fatality in Horses.**

We have lost two horses that showed the following symptoms: Inability to swallow, lay down and stretch out for a while, then got up and walked around with weak, trembling gait for about 10 hours, then lay down and refuse to rise, beat with feet and head for about 12 hours, and died. Post mortem revealed throats inflamed, lungs filled with blood, heart a little enlarged, urine dark. They died within 2 days.

Ans.—The symptoms indicate a disease known as "Cerebro Spinal Meningitis," but just why it gets this name is not readily understood. The first symptoms generally noticed is inability to swallow, followed by the symptoms you mention, more or less well marked and of different intensity and duration. The disease is due to partially decayed vegetable or animal matter, taken in either food or water. Partially-decayed vegetable matter as roots, silage of poor quality, or impure water may cause it. No cure has been discovered for acute cases. Prevention consists in a change to food and water of good quality, the administration of a purgative followed by 1 to 2 drams of iodide of potassium 3 times daily, the dose depending on the size of the animal. A horse of 1,400 lbs. would require about 1½ drams each dose.  
V.

**Miscellaneous.**

**Fertilizing Light Land.**

1. Do you advise top-dressing with basic slag on light land?
2. How can I get rhubarb to grow? I have tried getting roots from neighbors but they do not do well.

Ans.—1. We have found basic slag to give good results on wheat, roots, clover and grasses, and have seen where it has given results on spring crops. There are others who see no marked results on their land from using basic slag. It depends a good deal on the nature of the soil. Where a catch of clover or grass is desired the slag is recommended.

2. We cannot understand why the rhubarb will not do well for you if it thrives for your neighbors. It is possible that the soil is deficient in plant food where you have set the roots, or else something has been applied to the soil which does not agree with the rhubarb. Try planting it in another part of the garden. As a rule there is very little difficulty in getting it to grow.



**Well-Fed Cows  
Give Biggest Returns**

**Monarch Dairy Feed**

When the pasturage is poor or scant, a liberal feeding of Monarch Dairy Feed will keep the milk flow up to normal and the herd in good condition.

Even if the grass and clover is ample, it will pay to feed Monarch Dairy Feed, because it keeps the cows in good condition and its effect will be noticed later on. Especially will you find this true if you feed Monarch to two-year old heifers. You will find that they will develop

into better animals than your neighbor's that are not fed "concentrates" to balance the grasses. In addition, the richer droppings of animals given Monarch Dairy Feed add considerably to the fertility of the soil.

Monarch Dairy Feed is not a medicine. It is a milk-producing, wholesome, palatable, highly digestible food.

Guaranteed Analysis:—Protein 20%, Fat 4%.

It is sold at a price that makes it a profitable feed for the dairyman to use the year round. Order a ton from your dealer. If he is sold out, he can get it promptly for you, or you can write us.

The Campbell Flour Mills Co., Limited, affiliated with  
**Maple Leaf Milling Co., Limited**  
Toronto, Ont.

**Monarch Hog Feed**

A correctly balanced feed for the brood sow and the growing pig. Guaranteed Analysis—Protein 15%, Fat 4%.

**Sampson Feed**

A general purpose feed for cattle and hogs. Guaranteed Analysis—Protein 10%, Fat 4%.

**RAPLA STOCK FARM  
COTSWOLDS**

Yearling rams for flock headers. Yearling ewes and breeding ewes in car lots.  
Chas. J. Shore, - Glanworth, Ont.

**Oxford Down Sheep, Pioneer Flock**—We are offering this season a up-to-date lot of yearling and two-shear Rams. Also imported two-shear Ram and a number of Yearling and two-shear Ewes, also Ram and Ewe Lambs.  
HENRY ARKELL, Office and Telegraph, 207 Sherman Ave. South, Hamilton, Ont. Shipping Station, Guelph and Corwhin

**Berkshires**—Boars ready for service and boar pigs, rich in the blood of Lord Premier's Successor 161500, Grand Champion, 1914, Champion Sire of 1915, 1916, 1917. His descendants have won Grand Champion honors at the largest and strongest shows of 1919. The Champion Berkshire barrows of 1918 International were double grandsons of Lord Premier's Successor. We have shipped many Berkshires to Canada with satisfaction to customers. Prices on request.  
HOOD FARM, INC., Lowell, Mass.

**Chester Whites**  
Our sixth importation has just arrived. One litter farrowed in quarantine—sired by Champion boar Ohio State Fair—and a sow in pig to "Volunteer," Champion of Nebraska. Also ten litters sired by 1st and 2nd prize aged and champion boars at C. N. E. Unrelated pairs, as a baby herd. Illustrated catalogue.  
JOHN G. ANNESSER, Tilbury, Ont.

**ELMHURST LARGE ENGLISH BERKSHIRES**  
From our recent importation of sows, together with the stock boar, Sudden Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.  
H. M. VANDERLIP, Breeder and Importer, R. R. 1, BRANTFORD, ONTARIO  
Langford Station on Brantford and Hamilton Radial.

**YORKSHIRES**  
Pigs of different ages, both sexes, from large litters.  
**WELDWOOD FARM**  
Farmer's Advocate, London, Ontario

**TAMWORTHS**  
Young sows, bred for June and July farrow, and boars for sale. Write or phone.  
JOHN W. TODD - Corinth, Ontario  
**Meadow Brook** Registered Yorkshires—Ten choice young boars fit service, from prizewinning stock. Prices reasonable for quick sale.  
G. W. MINERS, R.R. No. 3, Exeter, Ontario

**BERKSHIRES**  
—My Berkshires for many years have won the leading prize 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.

**Inverugie Tamworths**  
Young sows, bred for September and October farrow. Choice boars of all ages.  
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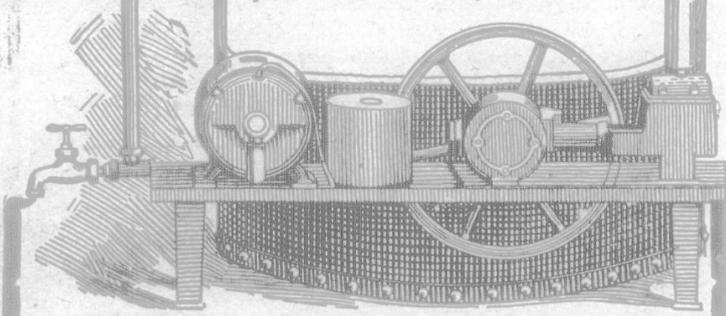
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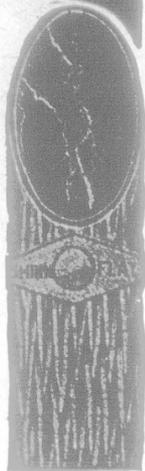
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**Our School Department.**

**How We Learned to Know Weeds at School.**

FROM THE NATURAL SCIENCE READER,  
BY S. B. MCCREADY.

(Continued from June 17).

For next day's lesson Miss Allin asked us to try to find out at home what the names of some of the unknown weeds were. None of us were very successful in this. I gathered about a dozen of the same kinds of weeds in our land when I went home, and after supper asked father and mother about them. They did not know any names for most of them, and "didn't like to say" what the others were. When we reported to Miss Allin our failures, she told us she was going to let us try to find out for ourselves by looking them up in Farmers' Bulletin No. 28. (U. S. Department of Agriculture—Ed.). She handed over her copy of the Bulletin and said she would give us until the next afternoon to work at it. We had a busy time at recess and noon hour that day and the next. Many a weed was pulled, too, to compare with the pictures in the book.

This time we knew the names better. There were a few that we were not very sure of, and there were a few we couldn't find in the Bulletin. But we had correct names for twenty.

Miss Allin was quite pleased with our results and gave us the names of the unknown ones. There were two that we had to send to the Agricultural College to be named for us. We made a list of them all on the blackboard and afterwards wrote this out on a large sheet of paper to hang as a record of our discoveries for future weed students to wonder at. For Miss Allin said that now that we knew what a weed bed our school yard was, it would be a disgrace if we allowed the weeds to remain. This is another story. I haven't time to tell you how we got rid of most of them and got grass to grow in their stead.

From our school grounds our weed studies were extended to the gardens, the fields and the roadsides. Before the snow came, we had learned to recognize about sixty weeds. We made studies of the seeds of some of them, too, and collected samples to glue on cards or put in little glass bottles. Miss Allin showed us also how to press the weeds and mount them on paper. I mounted only six last fall, but I now have over thirty. I keep them in a portfolio. It is an interesting collection to me, for nearly every plant represents a new discovery. I have also learned a great deal about the plants while I have been working with them. Both father and mother are interested in my collection. They know the weeds now about as well as I do. Sometimes they find a new plant that none of us knows. If we cannot find it in our Bulletin and Miss Allin does not know what it is, we send it off to the Botanical Department of the Agricultural College to be named. The professor there is always pleased to help us.

At school we have had some interesting weed examinations. Miss Allin would hold up specimens for a moment and then we would write down their names. Or we would go outside and, as we went about, write down the names of the plants that Miss Allin would point out for us. It is pretty hard for her to catch us now with anything that we cannot recognize. We have had some good naming and spelling contests on Friday afternoons also. As a rule the boys can beat the girls at naming, but the girls beat the boys in spelling.

In the winter we had a few lessons with samples of clover seed. My father got them from the seed dealers in Lynden, and I brought them to school. We found that one of the samples had eight different kinds of weed seeds in it. Another had six, another had four, and the best of the samples had three. None of the samples were fit to sow on our farm. There would be thousands of weed seeds in a bushel. We didn't know the names of all the weed seeds, but found them by forwarding samples to the Agricultural College. The most abundant of the impurities were dodder, ox-eye daisy, common ragweed, buckhorn, wild carrot,

black medick, worm seed mustard, and pigweed. Father decided to send away and get guaranteed seed. He had to pay a high price for it, but he considers it cheaper to do that than to fight bad weeds.

I do not suppose there is any place or any farm in the world that has not its share of weeds. The Stony Plain School district has its full share. I know that. We have to keep fighting them. That seems to be part of a farmer's job. But knowing them when one sees them and understanding their habits give one a great advantage in the fight. I feel that my weed studies at school will help me now to keep this enemy under control, and it makes work more interesting, too, when one is thinking about the things he is working with.

**SUGGESTIONS.**

1. If the school carries on correspondence with a school in another part of the country or in another country, it will be interesting to exchange specimens of weeds as well as wild flowers.

2. Send to Washington and your State Agricultural College for Weed Bulletins. Articles from the agricultural papers might be cut out and pasted on the back of the weed mounts, or on other sheets of paper that will fit the portfolio.

3. For a reference collection for school use, selections of the best mounts made by individual pupils should be donated. Likewise the school collection of weed seeds should be a souvenir of the work of different pupils. The recollections should be kept in a cupboard or a drawer where they will be safe.

4. For your school fair, an interesting event is a weed-naming contest. Some times this is combined with the naming of varieties of apples, species of grasses, trees from specimen leaves, kinds of grain, etc. When grown-ups can be prevailed upon to join the contest, there is usually more fun for the boys and girls.

5. If several pupils in a school are mounting specimens of weeds for collections, it is advisable to buy a supply of suitable paper sufficient for all cut to a uniform size. The standard plant-mount paper is a white ledger paper, 11½ inches wide and 16½ inches long. For ordinary collections, however, a strong, heavy manila paper will suit better, and a sheet the same dimensions as letter note paper is more suitable for keeping in a handy portfolio.

**What do We Plant?**

BY HENRY ABBEY.

What do we plant when we plant a tree?  
We plant a ship which will cross the sea,  
We plant a mast to carry the sails,  
We plant the beams to withstand the gales—  
A keel, a keelson, and prow and knee;  
We plant a ship when we plant a tree.

What do we plant when we plant a tree?  
We plant the houses for you and me,  
We plant the pillars, the shingles, the floors,  
We plant the studding, the laths, the doors,  
The rafters and roof, all parts that be;  
We plant a home when we plant a tree.

What do we plant when we plant a tree?  
A thousand boons that we daily see;  
We plant a spire to out-climb the crag,  
We plant a staff for our country's flag,  
We plant a shade, from the fierce sun free;  
We plant all wealth when we plant a tree!

**How a Steer Will Dress.**

A 1,200-pound steer will dress out about this way:

|                      | Lbs.         |                  | Lbs. |
|----------------------|--------------|------------------|------|
| Sides.....           | 660          | Dried blood..... | 4    |
| Hide.....            | 85           | Hard bones.....  | 4    |
| Tallow.....          | 60           | Horns.....       | 2    |
| Fertilizer.....      | 14           | Hoofs.....       | 5    |
| Liver.....           | 10           | Sweetbreads..... | 2    |
| Heart.....           | 4            | Sinews.....      | 4    |
| Tongue.....          | 5            | Tail.....        | 2    |
| Weight of steer..... | 1,200 pounds |                  |      |
| Net.....             | 861          |                  |      |
| Waste.....           | 339          |                  |      |

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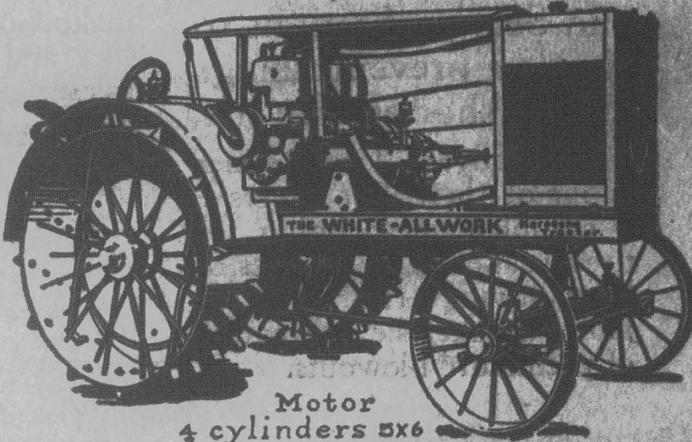
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The Geo. White & Sons Co., Ltd.,  
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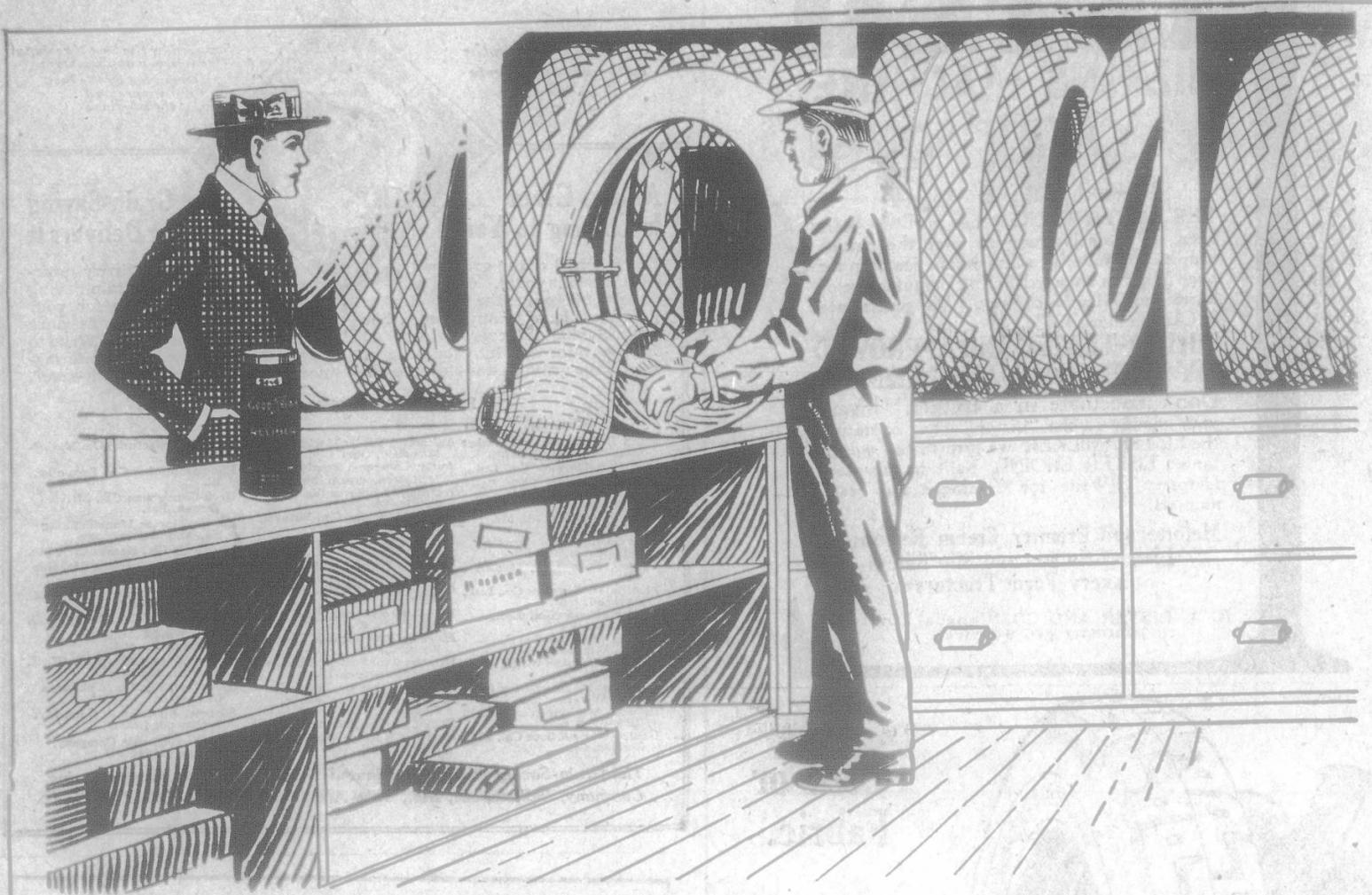
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