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is pure, long-fibred felt, which is thoroughly saturated with asphaltum under great pressure. This asphaltum is an indestructible fire-resistant material, compounded with other necessary high-grade water and fire proofing ingredients.

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off live sparks, cinders, acids and chemical fumes to which they are frequently subjected in large cities.

Just pit these many superior points of BRANTFORD ROOFING against other roofing materials, remembing its long fibre-felt "base," its asphalt saturation, its rock surface, its pliability, its pure materials and its defiant weather- and timeresisting qualities.

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THE FARMER'S ADVOCATE.

INDIAN

Resists Rust and Protects Against Lightning

Those are the two great truths that every farmer should know about Armco (American Ingot) Iron.

A building roofed with Armco Iron Roofing, that has the conductor pipes properly grounded, is proof—yes, absolutely proof—against lightning.

If you have any roofing to do this spring, don't forget that fact. You insure against fire, but it may come none the less. You can be proof against lightning. Will you be? Great as that is, you will be more interested in the fact that

No one needs rust-resisting Armco Iron as much as you farmers do. Manufacturers have most of their equipment under cover. Most of yours is exposed to all the weather. You have fencing by the mile, water tanks, cribs, silos, roofing and many other sheet metal products that are exposed to the direct attacks of rust.

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There are too many others to list here. Eighty stove makers use Armco Iron for the sheet metal parts of their ranges.

If you have any trouble at your roofer's or hardware store getting Armco Iron products, write to us. We will see that you are supplied. Motocycle is the BEST Motorcycle WHEN a stock motor shows its ability day after day in all sorts of tough tests, you 695

Stock models of the New Indian Powerplus Motor perform brilliantly every time they have an opportunity of proving their superiority. For power, speed, climbing, cleanliness, noiseless action and endurance they are mechanical marvels.

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You don't have to "tune up" a Powerplus Motor or "coax" it to make good. Any stock Powerplus, selected at random, will do at least 70 miles an hour—and probably more!

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Indian is the only Motorcycle MADE IN CANADA thus giving the rider the best,

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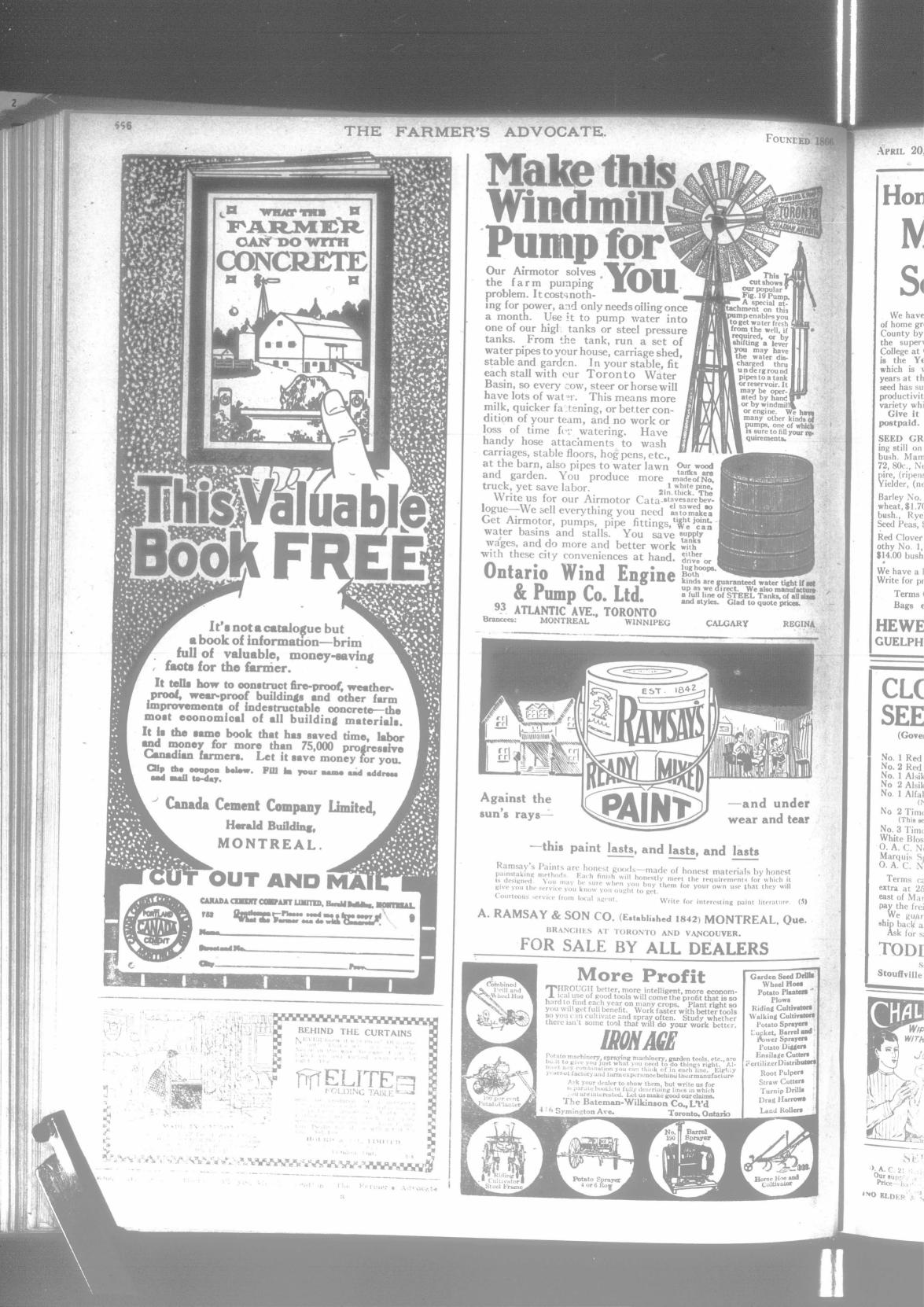
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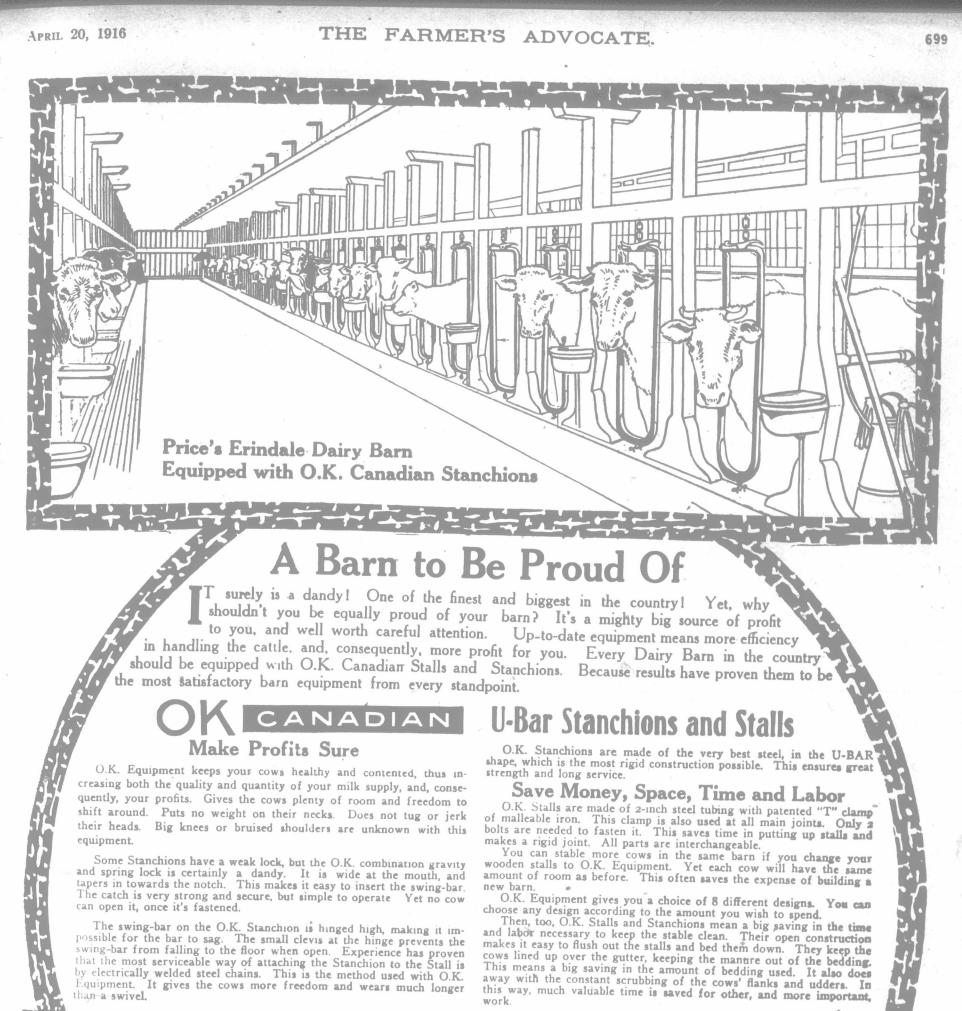
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And Here's the Proof Beaver, Que., Aug. 30, 1910.

Dear Sirs.

St. Thomas, Ont., June 27, 1913. Dear Sir.



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CR nearly forty years the De Laval Cream Separator has led in the cream separator field. It was the pioneer in 1878. It had a long start and has always held its lead. It has always led in every step of cream separator development and popularity, and more De Lavals are in use today than all other makes combined.

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Because of its cleaner skimming, ease of operation and wonderful durability, every De Laval user is a "booster" and the better its work is known in a neighborhood the more popular it becomes.

The better quality of cream it produces is attested by the fact that De Laval produced cream and butter have scored highest at every annual contest of the National Buttermakers' Association for twentyfour years and in every great representative contest for over thirty years. Last but not least, the De Laval was awarded the Grand Prize at the San Francisco Exposition in 1915 as at every other great exposition since its invention.

The creamerymen's choice can't be far wrong. The world's greatest dairymen and mechanical experts who act as judges at the great expositions can be depended upon to recognize real merit, and the fact that the De Laval is the choice of the majority of all cream separator buyers must mean a good deal to you. In your purchase of a cream separator can you afford to ignore these considerations?

Let the De Laval start saving cream for you right now. See the nearest De Laval agent at once, or if you do not know him write us direct for any desired information.

DE LAVAL DAIRY SUPPLY CO., Ltd. MONTREAL PETERBORO WINNIPEG VANCOUVER 50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER



THE WRONG OIL RUINS YOUR SEPARATOR

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standard for years. The mica fills the pores in the spindle. Saves friction, wear and money.

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ways of sending it to the junk pile. You need a special oil for the finely adjusted mechanism of this delicate farm machine.

Standard Hand Separator Oil

is made especially for cream separators—and for that reason it will most satisfactorily lubricate your machine. It keeps the bowl spinning smoothly and enables you to get *all* the cream. It doesn't "gum." Saves repair expense. Ask your dealer.

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farmer in your community.

doing to improve rural schools?

trition, or of abnormal appetite?

roots planted now will do the trick.

their seed this spring.

not a stimulus to recruiting.

more stock. Careful selection is necessary.

pasture this year, as recommended in this issue.

test; but if she fails in a fair test, she should go.

EDITORIAL

If you are going to raise colts, breed for draft and

It may be that you are killing your young chicks

Make up for a late seeding and a smaller acreage

Imitation is no crime, provided you imitate the best

What is the Department of Education in Ontario

Is German militarism the result of perverted nu-

Plan to grow your own root seed for 1917. A few

More land is going down to pasture. This means

If the acreage pastured is small, try an annual

Do not condemn the cow until she has had a fair

Potato diseases were prevalent last year, which

Some have hinted that the number of soldiers held

If the hens have not produced eggs for Easter, you

in almost every town of any size in the Dominion is

makes it imperative that growers exercise care with

Get after the weeds early.

Leave an extra acre or two for corn.

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LONDON, ONTARIO, APRIL 20, 1916.

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Mal-Nutrition or Abnormal Appetite?

As the European nightmare goes on from one day's slaughter to another, and the German soldiery continue in their campaign of frightfulness and killing, no matter how it is accomplished, one wonders why Germany with its education, "kultur," and advanced civilization (which is uncivilized), prepared for so many years to plunge the world into war, and finally, after the cataclysm had been inaugurated, used all the barbarous methods which an advanced science alone could devise to annihilate human beings, because they belonged to nations which were not Hun in spirit and which were human rather than Prussian. One wonders that the German people, among whom there were at the beginning of the war enough Socialists to elect to the Reichstag so many members that the other parties had to unite in order to control things, would be willing to carry out the orders of the militarists, and yet they must be willing, for the bravery shown by the German troops in recent fights proves that up to the present, at least, they have believed they were right and that through militarism and its awfulness they must gain their ends. Has it all been the result of perverted Have they been so long nurtured on nutrition? militaristic ideas that it has turned them from the truth, biased them against the right, and made military proselytes of the entire nation; or is it that the people, particularly the Prussians who have been the dominating influence, have an abnormal appetite for slaughter and conquest? It seems strange sometimes, when considering the whole situation, that a people could be so invested with things military if they did not want to be. We are ready to grant that it is possible for a few men at the head of affairs in a nation to swing public opinion, but it seems almost beyond comprehension that a group of militarists could so hoodwink a thinking people into believing that through causing death and awful carnage they could become the rulers of the world in this age of democracy, and government by the people for the people. There surely must have been in Germany an appetite for such frightfulness or if this was not the case, her constitution must have been badly out of order to allow such ideas to be nurtured up to the present stage.

Give the Boy Responsibility.

The business man recognizes that the best way to get good work from his employees is to develop, maintain and increase their interest in the business. Several himself, to you as his father, and to the agricultura community at large.

1230

The Influence of One Good Farm.

It is impossible to estimate the value of one well managed farm operated by an up-to-date, energetic wide-awake farmer in each neighborhood. It is in this particular that the District Representative has done his best work. If he has been able through Farmers' Club movements through Short Course work, and through his labors in other directions to interest a few farmers in each district, men betweer the ages of sixteen and forty, in becoming live wires in their community, he has accomplished the greatest good which he can do. Once the young man become enthusiastic and goes back to his farm determined to make it a better farm and so reap larger crops thereform he is bound to do, unconsciously, more good in his community than could a thousand preachers of ag riculture who are not willing to practice what they preach. The practical farmer who is making good on his land, who is sowing better seed, is practicing more thorough cultivation, is rotating his crops, is testing his cows, is breeding improved live stock is a power for good in his community. At first his neighbors are likely to scoff, but, as with Goldsmith's village parson, those who came to scoff soon remain to pray. Before very long they are enquiring about the successful methods of the enthusiast. As W. L Martin said in a recent letter, the farmer who calls scientific agriculture crazy is often the first one to enquire about it once he sees a practical demonstration of its success. The young farmer soon has a following if he is able to show the other men that what he is doing is giving him bigger crops and higher returns than they are getting from their haphazard, work-a-day methods, and his hundred acres well worked may be really a little model farm for the rest of the surrounding country

Colts at Smaller Cost.

The Horse Department, in this issue, contains two special articles which every horseman should read When horses are slow sale and the market is "drugged' is the time that more care is necessary if the colts are to be raised at a profit. In place of the all-too-common neglect which ensues when the market is glutted should be exercised the most economical means of producing colts so that they may be sold at a profit to the man who raises them. The stallion which sires them must be kept in a vigorous, healthy condition before and during the breeding season. The mare must get regular and judicious exercise, feed and care throughout her pregnant period, at foaling time, and after. The colt must be started right. The attendant must be "on the job." All these things are explained in a practical manner in the articles mentioned.

had better change the breed, the strain of the breed, the feed, or the date of hatching.

In watching the political developments, we sometimes wonder whether the parties are more interested in the chance to govern the country than in its welfare.

- The right kind of recruiting officer is the man who realizes that some Canadians are worth more to the Empire by remaining at home than if they went to the front.

Technical education should get a big boost at the end of the war. Returned soldiers should be taught to do that which they prefer to do and which they can best accomplish.

It might be as well to consult returned soldiers as to what they want to do when the war is over, rather than attempt to make farmers of them all, even in such a good section as New Ontario.

methods are used to gain this end, but the one which generally proves most successful is to throw responsibility on employees and put them in a position where it is necessary that they take responsibility and with it become more efficient in the work of the concern, whatever it may be. This applies to the farm as well as to business. The farmer's son does not care to be merely a laborer, and no one can blame him. If he is to be induced to take the interest which he would like to get in his father's occupation, he must feel that he is responsible for some part or department of the management and operation of the farm. The minute he gets this chance to show what he can do his ideas of farming change; he is not so anxious to hurry away to the city; he is able to plan, practice, and reap the benefits from this work, and he should reap the benefit if he is successful in the particular part of the farm operations entrusted to his care. Give the farm boy a free hand in some branch of the work, make him wholly responsible for it and allow him returns on it commensurate with the work and ability shown in operation and you have made your son of vastly greater value to the farm, to

The "New Variety" Trap.

It is human nature to be gullible and the farmer is by no means immune. One of the commonest schemes for which he falls is that of color-plate and pen-picture advertising of something new in the way of farm crops True, many new varieties are good and heavy yielders but some of them are simply devices for getting high prices for seed or trees. There is much in variety but something authentic should be known about any variety before planting or sowing it on a large scale. Our Experimental Stations are for the purpose, among other things, of testing new varieties. The Experimental Union in Ontario tests, on individual farms, scores of varieties of all kinds of farm crops It is well before buying a "boosted" variety in large 102

THE FARMER'S ADVOCATE

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

Published weekly by THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal," Winnipeg, Man.

- THE FARMER'S ADVOCATE AND HOME MAGAZINE
- 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 fur-nishes the most practical, reliable and profitable informa-tion for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
 TERMS OF SUBSCRIPTION.—In Canada, England, Ire-land, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s.; in advance.

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- change of address should give the old as well as the new P. O. address. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Sugges-tions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots or Vege-tables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns." Rejected matter will be returned on receipt of postage. ADDRESSES OF CORRESPONDENTS ARE CONSID-ERED AS CONFIDENTIAL and will not be forwarded. ALL COMMUNICATIONS in reference to any matter con-nected with this paper should be addressed as below, and not to any individual connected with the paper. THE FARMER'S ADVOCATE, or

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juantity at a high price to know what some of these experimenters think of it. It is better to try it on a mall scale on your farm unless it be fruit trees, and with these the standard varieties should be adhered to. Every man has within him the desire to try something lifferent. This is all right if what he has been growing s not the best sort for his soil, but before changing he hould be absolutely certain that what he is buying te better.

Will It Be More Grass?

Indications point to a larger acreage of pasture and tay land in Canada. Men are going to the war and live-stock prices are comparatively high. The natural consequence one would expect to be more grass. More grass cannot be made profitable without more stock und it takes a few years to very materially increase the latter. The city man who would seed down his farm and multiply his stock by two or three or four often forgets that it takes years, not days, to accomplish :his and in the meantime the land must be cultivated and cropped. With it all a big acreage of grass land is assured With this we would eastion against promiscuous breeding in the hope of rapidly increasing ive stock. As the numbers increase very often the ruality decreases. Do not lose sight of quality and preeding in the increase of the stock. A few of the right kind are more profitable than large numbers af scrubs

colored parts, which may be from six to twelve in number, are really the sepals. The three green parts which form the outer envelope of the flower look like sepals, but are really bracts, as the fact that they are borne a little distance below the flower demonstrates. When the blossoms are young they close at night and on dark days, but when they become old they remain open all the time. The result of this arrangement is that the stamens are protected as long as they are shedding the pollen. The leaves are evergreen and are three-lobed, and those which have passed the winter under the snow and are present when the blossoms open are purple beneath and mottled green and purple above. At the time the plant is flowering it puts out new leaves, and these are mature by the middle of June when the seeds are ripe, as may be seen from Fig. 2. These leaves are active in the fall after the foliage has fallen from the trees, and store up food in the crown of the plant so that it is all ready for an early start in the spring.

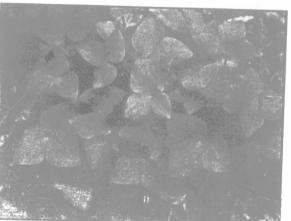


Fig. 1-Hepatica.

The Hepatica is often called "Mayflower," which is not a particularly apt name considering its flowers appear in April, or sometimes in very early springs even at the end of March. Moreover, the name "May-flower" really belongs to another species, a plant also known as the Trailing Arbutus which does bloom in May, and it is also applied to other flowers in different parts of the country—in certain sections of Ontario the Spring Beauty being so called, and in parts of New Brunswick the White Violet being called by this same name.

This species is found from Nova Scotia and New Brunswick to Western Ontario, but is apparently scarce in the eastern provinces, and most abundant in the central and south-western parts of Ontario.

It is very interesting at this time of year in our walks in the woods to observe the various plants, just emerging from the ground, and to see how many we can call by name in their infantile stages. It is quite a different matter to know a plant when it is in flower, and when it is either very young or is



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Studies in Political Economy-VII EDITOR THE FARMER'S ADVOCATE:

My chief justification for trespassing further on your readers' patience, in attempting to apply some of the conclusions already arrived at, is that we face a serious industrial and financial problem in which we as farmers are vitally interested, and in whose solution we are destined to play an important part. Before the outbreak of the war we had, as a people, incurred financial obligations to the extent of between three and four billion dollars, most of which had been borrowed to "develop" our secondary industries. The conse-quence was that our industrial structure had become top-heavy, and our primary industries, upon whose success the ultimate success of our secondary industries depended, were staggering under the burden. Nature's effort at a readjustment, by a toppling of the superstructure, was, as had been predicted, in operation when the war broke out. This process, much lamented in certain quarters but nevertheless essentially salutary, was suddenly retarded by "war business." New burdens are being thrust upon us. Enlistment is taking away a large proportion of our workers, and threatens to giv Canadian agriculture a crushing blow. Our Federal indebtedness is increasing by leaps and bounds, and is being largely met, not by taxation, but by further loans, and in the face of all this we must now admit that the methods of taxation hitherto in vogue are now quite inadequate to meet the requirements of the situation. Let us see, then, if some of the teaching of political economy already presented will not throw some light upon these pressing problems of the day.

One of the greatest economic needs of Canada to day is the stimulation of her primary industries, chief among which is agriculture. There is no need to argue this point, because nobody disputes it. It is admitted by economists and public men on all hands. The practical question is: how can this be done?

Before attempting to answer the question in a posi tive way, I should like to point out that many answer being given are entirely irrelevant. The fundamental law that man seeks to satisfy his desires with the least effort is a sufficient explanation of the general fact that labor and capital flow towards those industries which return the greatest rewards. These rewards are by no means all of a material or financial character Taken all together, however, they are in some rough manner estimated by men, and these estimates whose essential accuracy it is idle to dispute, control the dis-tribution of labor and capital between the various industries. It is therefore quite beside the mark, in trying to explain the relative deterioration of our primary industries, to advance the argument that farmers do not treat their sons and daughters as they should, or that the social life of our towns and cities possesses a tremendous attraction for the young people in the country. These and many similar things may be admitted. They are, however, all included in the more general statement that labor and capital have not been adequately rewarded in Canadian agriculture; and if we set ourselves to discover how and why this condition has arisen, we shall incidentally answer and solve all the minor questions and problems.

Bearing this in mind, let us address ourselves to the question above-mentioned: How can agriculture be stimulated? I shall not attempt to give an exhaustive answer, for the whole answer cannot but be many-sided hope, however, to direct attention to some few ways in which, first, the burdens now being borne by Canadian farmers may be lightened, and, second, the positive rewards may be increased.

One of the inevitable expenses which every farmer must meet is the cost of his land. Other things being equal, the cheaper the land the greater the profit, and vice versa. Unquestionably this largely explains the tremendous attraction of the Canadian West. And yet even in that new country the cost of getting land has, been enormously increased by speculators. F. J. Dixon M.B.A. for Centre Winnipeg, speaking before the Convention of the Saskatchewan Grain Growers Association, in Saskatoon on February 15 last, stated that out of the 150 million acres of arable land in the three prairie provinces 100 million acres was already in the hands of speculators, only 30 million acres in the hands of the Government, and only 20 million acres in the hands of those living upon and working their land. The iniquity of this situation will be ap parent, and will be more fully shown in the sequel Now, however, let us see how it affects agriculture in the Canadian West. In the first place this condition drives settlers away back from the railways in order to get cheap land otherwise they must pay a heavy toll to the absentee owners for the privilege of getting land conveniently located. Thus sparse settlement is encouraged; nay, i almost compelled. Many evils spring from this condition. Farmers have to incur heavy expenses for teaming out their produce and bringing back their supplies. Road building is made very difficult. Farmers' children are deprived of proper educational facilities, and wholesome social intercourse is almost banned. Men, women, and children, and especially women, suffer and often die from lack of proper medical attention. All these and other similar evils arise our of the fact that the land is owned by non-users; and all of them either make the farmer's financial returns positively smaller or make his own and his family's life well-nigh intolerable. Taken all together, they decrease the rewards of labor and capital applied to Canadain agriculture, and thus tend to curtail production.

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Nature's Diary $\mathbf{A}_{i} = \mathbf{P}_{i} = \mathbf{X}_{i}^{T} \mathbf{U}_{i} \cdot \mathbf{Y}_{j} - \mathbf{X}_{i} \cdot \mathbf{y}_{i}$

The early spring howers are not spontane in works, and the hollows in which the same so econdy by do place now gay with blocket. the w e. and, the action of now gay with the solution of the resident. Other trace base pioneers at the detail pro-ession. Other traces have are, there is not inter-tention ensemble is to the solution of the fin-near tweeter and it is to the solution of the plant in a pring into the new solution and solution the plant in our heats way to is forth to one considers of the evaluation of the solution.

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Fig. 2-Hepatica at time of shedding seeds.

past flowering, with only leaves and perhaps fruit present. To recognize the species when in bloom is in the case of many of our plants very easy, but to know them in all stages is an aquisition which comes only with years of experience in the woods and fields, and this ability is one of the hall-marks of the true

A spritely little bird which has arrived from the south and whose song is to be heard in our woods is the Winter Wren. This species resembles the wellknown House Wren in appearance, but is smaller, has a good deal shorter tail and has a whitish streak over the eye. The name of Winter Wren was given to this bird in the middle States, not in Canada, because it passes the winter farther north than any of the other wrens. It is an inhabitant of our deeper and moister conferens woods, of the type of country which is usually referred to as a "Cedar swamp. The song of this species is one of the most beautiful and due to the species is one of the most beautiful radiations in the chorus of spring bird-music. It is of a multicy people to itself—a high, metallic, yet liquid woulde, which begins softly, swells in volume and dies grad-ally away.

The nest of the Winter Wren is usually placed in an upturned root, and consists of a ball of moss, lined with feathers, and with an entrance at one side.

How can these evil conditions be removed? The answer is given in part by the Province of Alberta. 1914 the Alberta Legislature passed an Act to tax wild

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land, and collected \$700,000 revenue from this source land, and confected \$100,000 revenue from this source in one year. This tax not only increased the positive rewards of the users of land in Alberta, but made it increasingly difficult for the speculators to withhold the land from cultivation. Thus it had the effect of assisting those wanting land to get land cheaply. Whether or not the Alberta tax will put a stop to land speculation one cannot say, but one can say that just a speculation one cannot say, but one can say that just as soon as the tax on land withheld from use equals the estimated "unearned increment," then the speculator must sell. And he cannot sell to another speculator; he must sell to a user, or have his land revert to the State. Therefore Society has it within its own power to kill speculation

Society has it within its own power to kill speculation in land, with all its consequent evils, by suitable taxation. As previously pointed out, the appropriation of the ground rent by the community solves the problem of just distribution — that is, of ensuring to every worker a just reward for his labor. Now, the "unearned increment," the land gambler's reward, is the ground rent capitalized; and the organized farmers of Alberta, in agitating for and finally getting a tax on wild land, have made a distinct step in advance towards the soluhave made a distinct step in advance towards the solu-tion of the problem of just distribution, and have at the same time made it easier for every Alberta farmer to get an adequate return for his labor. They have thus done one thing to stimulate Canadian agriculture. which, as has been stated already, is admitted by everyone to be most desirable.

Brant Co., Ont.

W. C. GOOD.

Lameness in Horses-XVIII. Corns-Thrush.

THE HORSE.

Corns are a common cause of lameness in horses They are often present without causing lameness, but are liable to become troublesome at any time; hence a horse with a corn should be condisered unsound, although here with a corn should be condiscied unsound, atthough he may be going sound. A corn is usually situated in the inner quarter of the sole, between the bar and the wall at the heel. It is caused by a bruise which wounds the blood vessels of the part and causes an extravasation of blood between the sensitive and insensitive soles. Bruises which cause corns may be caused by the shoe, when the bearing is too great near the heel, or by the horse treading upon objects which are small enough to insinuate themselves between the shoe and the bar of the foot. In some cases lameness is not caused, while in others it is noticed, and its degree will depend upon the severity of the bruise and the amount of blood extravasated. In some cases pus is formed, when the lameness is acute. It is a peculiar fact, that when a corn is once formed, there is a great tendency to its perpetuation without apparent cause, and notwithstanding the greatest care. Symptoms.—As stated, a corn may be present without causing lameness; hence will not be suspected,

nor noticed, unless the sole be pared somewhat deeply over its seat. While corns usually appear in the inner quarter, they are occasionally noticed in the outer. When the outer surface of the horny sole is pared away, little red streaks will be noticed, and a little deeper paring will reveal some dried blood. The surface over which this condition exists varies greatly in different subjects. When lameness is present its intensity will depend upon the severity of the bruise, and upon the depend upon the severity of the bruise, and upon the nature of the ground upon which the animal is travelling. As with many lamenesses, especially those upon which concussion acts directly, the lameness from corn is more marked when the horse is travelling on hard ground. There is no pecularity of lameness that will lead the observer to diagnose corn, rather than other

THE FARMER'S ADVOCATE.



Dunure Footline. Winner of £100 Glasgow premium.

foot lameness. When the foot is examined, it will be found that pressure exerted upon the seat of corn (with a pinchers, tester or other instrument) will cause the animal to flinch. If there be suppuration, pressure upon the heel with the thumb will cause pain, and if the sole be not opened to allow escape of pus, it will soon work up between the sensitive and horny wall and escape at the coronet, thus causing quittor.

Treatment.—Remove the shoe, pare the sole well down, and, if pus be present, it will escape; if not, the sore and inflamed part is exposed. Then apply poultices of hot linseed meal for two or three days and nights, to allay the inflammation, when lameness will disappear. The wall of the foot, at the quarter, should now be rasped down, so that no weight will rest on the shoe

above the seat of corn, and a bar shoe giving good frog pressure put on. If pus has been present, the hole in the sole should be filled with tar and tow, before the shoe is put on in order that gravel or other foreign matter cannot enter the opening. The shoe should be re-set every three or four weeks, and pressure kept off the quarter. By this treatment a perfect cure may be effected, but there is a great tendency for reappearance of corn in a quarter where one has existed.

Thrush.

Thrush consists in a discharge of a foetid matter from the cleft of the frog, arising from a diseased con-dition of the secretory surface of the sensitive frog. In neglected cases the whole frog becomes involved, the horny frog becoming detached over its whole sur-face. Thrush is caused by irritating substance generated during decomposition of urine and faces which become during decomposition of urine and faeces which become insinuated in the cleft of the frog, and allowed to re-main there, by allowing horses to stand in liquid or main there, by anowing horses to stand in liquid or semi-liquid manure, or other filthy substances, and is sometimes noticed in horses that are grazed on damp pasture ground. The usual causes of thrush are: allow-ing horses to stand in damp, dirty places, and neglect in cleaning foreign substances out of the cleft regularly. In some cases thrush appears without any appreciable In some cases thrush appears without any appreciable cause. There appears to be a congenital predisposition to thrush in some horses. The liability to thrush is one reason why the groom should always have a foot hook on hand, and thoroughly cleanse the sole of the foot, and the cleft of the frog every time he grooms the horse, and, even if the horse is not regularly groomed, the feet should be cleansed regularly.

Symptoms.—Usually slight lameness, when the foot is examined, a peculiar, foetid liquid will be noticed escaping from the cleft of the frog, the cleft will be deeper than normal, and the animal will evince pain when the foot-hook or other instrument is inserted to the bottom. In extreme, or neglected cases the whole the bottom. In extreme, or neglected cases, the whole frog becomes soft, and moist, and easily separated from the sensitive frog. The lameness will, of course, be severe in proportion to the extent of the disease.

Treatment.—Prevéntive treatment consists in look-ing well to the cleanliness of the animal's surroundings, ing well to the cleanliness of the animal's surroundings, and attending regularly to cleaning the foot. Curative treatment consists in removing the cause, by placing the animal in a thoroughly dry, clean stall, cleaning the cleft; and removing any partially detached portions of the horny frog. A little calomel or sulphate of zinc should be introduced into the cleft, and worked down to the bottom with a foot-hook, or other blunt instru-ment every two or three days, and it is good practice ment every two or three days, and it is good practice to put a little batting in the cleft to prevent the en-trance of foreign matter. This treatment soon arrests the discharge and dries up the parts, and, if attention be paid to the foot, a growth of new horn soon takes place. Another treatment that has given good results is to pour a little formalin into the cleft, instead of the powders mentioned.

Putting Vim, Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition when they are for and clock Vigor and Virility into the bin good condition the bin good condition the bin good condition the bin good condition to the It is again the time of year when all stallions that are to stand for service this coming season should be in condition for their work. Most animals are said to be in good condition when they are fat and sleek, but when this term is applied to antire horses it implies

but when this term is applied to entire horses it implies more than appearance and depth of flesh. The horse that will be prepotent and leave strong, healthy colts must have muscular, respiratory, nervous and sexual energy. Heavy feeding, of boiled or prepared feeds may put on weight and give the desired appearance, but such treatment injures the constitution of the animal lessons his willing and tonda to induce mechanics animal, lessens his virility and tends to induce weakness in the foals he does leave. It is very disappointing to the owners of valuable mares when the finest and most popular horse in the district fails to leave colts. Sometimes when the mares do get in foal, the colts come either dead or very weak. The failure to conceive or the production of weak foals is not entirely the fault of the mares. The ability of the stallion to get mares in foal depends largely upon his care between seasons, as well as during the stud season, while the vigor and strength of the foal when born is to a large degree in proportion to the vigor and constitution of both parents at the time of copulation and conception. Observant breeders have noticed that a stallion that has been allowed to rough it is a more successful breeder and leaves a much higher percentage of strong, vigorous colts than does the horse that has been pampered. Wherein lies the difficulty with the better-cared-for animals? Is it not largely due to lack of proper exercise and feed? The breeding and individuality of the animal should count for more than it does with the average person. The fleshing and grooming counts far too much with many people. Owners of entire horses naturally endeavor to have their animals in the condition that will attract the attention of the public, and in so doing often loose sight of the essential point in fitting a horse for the season's work. Where the stallion is kept on a farm, the owner usually does not have the time to give regular exactly attention to the to give regular exercise and special attention to the animal throughout the greater part of the year. The horse is given a box-stall to run in between seasons, and, while he may be in good flesh and high spirits, his muscles are not not a block but a fast the whole muscles are sole and flabby which affect the whole animal system if put directly to hard work. On many farms there is no suitable paddock to turn the horse in, or when there is the owner is sometimes afraid to

turn him loose on account of the danger of injuring himself while racing around. Owing to the lack of time, or bad roads the horse receives no exercise until a few weeks before the season opens, then possibly he is overworked and the owner wonders why more mares do not get in foal. Too many horsemen stake their horse's reputation on the amount of flesh he carries and the number of mares he breeds, rather than on the percentage of strong, healthy, vigorous colts that he leaves. The experience of many horsemen has been that breeding stallions should be kept in only moderate condition, fed regularly on good quality feed as grown on the average farm and given regular work or exercise which aids in keeping up constitutional vigor and tends to make him more prepotent. The methods of handling stallions as practiced by successful stallion owners or their grooms may be of value to some breeders in preparing their horse for the season's work.

to see how little feed massive, heavy draft horses were fed, and yet they were in prime breeding condition. For fitting horses in this stable they are fed about six gallons of rolled oats per day. Cut alfalfa is mixed with a little salt and molesses then boiling water is poured gallons of rolled oats per day. Cut analia is mixed with a little salt and molasses then boiling water is poured over the mixture. This is allowed to steam for a time and is fed twice a day. Besides this, each horse gets a little uncut alfalfa hay. The horses are watered be-fore each meal. The amount of whole hay dependence fore each meal. The amount of whole hay depends on the horse, if it is desired to increase his middle more hay is fed than if he already has sufficient body. The hay is led than it he already has sumclent body. The horses that are considered to be fat enough are fed about five gallons of rolled oats and ten or twelve pounds of alfalfa hay per day. Molasses, or steamed cut hay are not considered necessary. A little sulphur is fed every week as a blood purifier and sometimes saltpetre is given. In another stable Freen solts is described. is given. In another stable Epson salts is fed regularly in place of sulphur. It is considered a mistake to

Preparing the Horse for the Season's Work.

In order to prepare the stallions that have stood in idleness the greater part of the past nine months to give satisfactory results the coming season it will be necessary to start giving regular exercise or work. If the horse is in low condition he must be fed heavier and if over-fat the flesh should be slightly reduced, as stallions in moderate condition usually prove the most satisfactory. The horse should be in training for several weeks before the season opens. It takes time to harden the muscles. The horse that has been idle all winter cannot be put in as good physical condition as the one that has been exercised every day since the previous season closed.

Rolled oats, hay and bran are the feeds the majority of horsemen rely upon. Alfalfa hay is given the preference. It contains the nutrients that go to keep the animal vigorous. When alfalfa cannot be secured, bran is fed to take its place. The feeding is done as regularly as clock work and herein lies the secret of success in keeping the animal in condition. Regularity in feeding, watering, grooming, working, or exercising is a big factor towards keeping the animal heaithy. In one stable recently visited the writer was astonished

resort to drugs or tonics in fitting a stallion.

The stallion should be given a comfortable, well ventilated box-stall. In the majority of the large stables there are no mangers, the hay is picked off the floor. Regular and careful grooming is considered essential in preparing horses for work. The best feed, without the curry comb and brush, will not fit a horse. The pores of the skin must be kept clean. The feet and legs usually require attention and the horse should be carefully shod.

Regular exercise is not to be neglected. The horse that has run in a paddock, or been exercised on a line during the winter, will be able to stand more strenuous work than the horse that only had the run of a boxstall. The groom should start six weeks before the season opens to get the horse hardened so that he will not lose flesh when he goes on a route. At the first a daily walk of a mile or two will be sufficient for a horse that has been idle and this distance could be gradually increased until the horse is accustomed to walk farther each day than he would be required to travel between stands. Unused muscles require considerable time to harden them sufficiently to stand the season's strain. Some breeders use the stallion at light work on the farm during seeding and if he is judiciously worked it is beneficial. The lighter breeds of horses may be exercised on the line, in harness, or in the saddle according to the desire of the groom. If several stallions are kept in a stable the expense of exercising all of them is considerable. If they can be broken to do

necessary work, the cost will be considerably reduced. Good feed, good general care, careful grooming, and regular exercise are necessary to put a horse in condition.

Care During the Breeding Season.

The breeding season is rather short, as the majority of mares are bred during May, June and July. horse is usually on the road about ten or eleven weeks of the year and possibly has a stand at two different places each day of the week, returning to his own stable for the week end. The stallion is usually entrusted to the care of a hired groom. If the groom is a real horseman, understands feeding and looking after a horse, knows the animal's limitations, and governs things accordingly, everything will go satisfactorily. The horse will gain in flesh, rather than fail, and a large percentage of mares will be got in foal. If the groom does not understand his business, there is no end of trouble. The owner of a valuable stallion should endeavor to hire the services of the best groom money will secure. Too often the groom is more concerned about the appearance of his horse and the number of mares he is able to get rather than the health of the animal and the number of mares the horse is "stopping" each week. Some grooms walk and lead the horse from stand to stand, while others take an extra horse with a rig in order that certain equipment may be carried. It is handy to have your own comb, brushes, pail, sponge, etc. A couple of feeds of oats may be carried so that in case of unavoidable delay on the road the horse would not have to miss his feed at the regular time. It is convenient to have a heavy and a light blanket along owing to the changeableness of the weather. The more comfortable a horse can be kept, the better he will stand the season.

The feed at each stopping place should be similar to the feed in the home stable, and be fed at the same time. It may be difficult to secure the same quality feed and arrange to feed at a certain time each day, but an endeavor should be made to have stable conditions and feed on the route as near like what the horse has been accustomed to as possible.

The stallion on a route usually gets sufficient exercise and will stand fairly heavy feeding, especially of grain, but only a limited quantity of hay should be fed except at the evening meal. Most grooms prefer rolled oats and if the horse is used to them at home arrangements should be made ahead at the different stands to have a supply on hand. Very few places have a supply of alfalfa hay, and bran may be fed to take its place. Both hay and grain should be of firstclass quality. Grass can usually be obtained and it is considered good practice to allow the horse to pick a little each day. Water should be given before and after meals and even between meals if the horse appears thirsty. Any change in feed, travelling on a hot day after a heavy meal, together with sexual excitement tend to weaken the digestive organs and predispose to disease of them. Stallions on a route are more subject to digestive troubles than those standing in their own stables.

While most grooms make a practice of feeding only three times a day, one very successful groom, who

claims he has yet to have a stallion take sick on the route, has a system of feeding that entails a little more work than the average man is inclined to do. About six gallons of rolled oats and bran are fed in six feeds, only a wisp of hay is given morning and noon, but the horse gets a good feed of hay at night. The horse is given from a quarter to half a mile walk first thing in the morning, then watered and fed grain. In a couple of hours time the horse is again watered and fed. Two feeds and water are given at the noon stand. On reaching the evening stand, the horse is again watered and fed, then later in the evening is fixed up for the night. On Saturday nights steamed feed and a little sulphur is fed. Exercise is given on Sunday, but the feed is reduced. Possibly the same amount of grain fed in three feeds would keep the horse in as good condition as the six feeds. Every groom has his own ideas regarding the amount and times of feeding, but all are unanimous regarding the necessity for regularity in feeding as well as in feeds. For a heavy draft stallion, a route of twenty-five or thirty miles is considered sufficient for a week's travel. An animal of the light breeds may travel considerably faither.

The number of mares to which a stallion may be bred in a day with satisfactory results and without injury to his constitution is a moot question. It is difficult for a groom to refuse the horse on a mare that has come a distance, consequently some grooms will breed their horses to mares almost any hour of the day or night, allowing only about an hour between services. While the popularity of the horse may be indicated by the number of mares he breeds, it does not prove that a large number of mares get in foal. If stallion owners and grooms would limit the number of mares to two or three a day, and have at least three hours between services, there would be a much larger percentage of foals. Of course, the groom should use judgment. If the stallion is "stopping" the mares the number might be increased, but every horse has his limitation. It must be remembered, however, the reputation of a sire depends on the number of strong, vigorous foals he leaves, rather than on the number of mares he covers. A mature stallion may be safely used on 100 to 130 mares during the season. A three-year-old about sixty mares. If sixty per cent. of the mares bred get in foal, it is considered very good, although some horses get as high as eighty per-cent.

The weather is often cold the fore part of the season and the mares do not conceive. If, during this time, the groom accepts a large number of mares, and they return later in the season when the milk mares are coming around it over-taxes the stallion and results in a low percentage of foals. It is often wise not to breed too many new mares the first few trips over the route. Drugs should never be used to stimulate the generative organs, as they tend to injure the horse. Attention should be given the stallion's feet. If the roads are dry and hot, it is a good plan to poultice the feet occasionally.

Some grooms wash the stallion after every service in order to run no risk of the horse contracting any disease from a mare. Other stallion men do not take this precaution unless a mare should show signs of disorder. It is wise to examine the stallion at least once a week and wash the sheath with a weak antiseptic solution, then apply lard or vaseline.

Between Seasons.

At the end of the breeding season when the stallion comes in from his route, he should continue to receive good feed and regular exercise. Too many owners have the horses' shoes removed and then turn them loose in a box-stall where they spend the greater part of the nine months between seasons. While the best of feed and attention may be given, if they receive no exercise the muscles become soft and flabby and a good deal of work is necessary the following spring to put them in condition to stand the season's work. Importers and breeders of entire horses usually take particular care to keep their stallions looking well, but at the same time they are kept hardened by regular exercise. Every day the weather is favorable, the horses are walked or are turned loose in paddocks for an hour or two. In this way no extra work is required to fit the horse in the spring. The stallion that is put in condition for service in a few weeks in the spring is not as sure a breeder as the one that is kept hardened from one season to the other.

The man who has farm work to attend to besides looking after the stallion frequently neglects to give sufficient exercise to his horse, owing to lack of time. If there is no suitable paddock the difficulty may be overcome by working the horse on the farm. The Thoroughbred is trained for speed and it is believed that fast work by the ancestors is essential to develop speed in progeny. If this holds good with the race horse, it should be equally necessary to develop draft powers in draft horses. A stallion should be capable of doing the work that will be required of his offspring. Many heavy, draft stallions are used in doing farm work If they are judiciously used on the implements for doing fall and spring cultivation on the farm, they will make more prepotent sires. True, they may not look quite so well, but with muscles hardened by labor and outdoor exercise they leave a larger percentage of thrifty colts than the sire that remains in comparative idleness the greater part of the year. The highly bred, valuable stallion can be handled so that he will be just as sure a breeder as the mongrel horse. Good breeding and individuality are essential qualities of a sire, but along with these the animal should be kept in hard, muscular, healthy condition at all times. stallion that is worked can be kept looking well, although possibly not so fat as the idle horse.

Using the heavy draft stallions for necessary work, or driving stallions of the lighter breeds, will assist in paying for their keep during the time of year they are not required for breeding purposes. If it is not possible to work them, they should have regular outdoor exercise, either on the line or in a paddock. When breeders demand that the stallions they use on their mares be in good muscular condition as well as in good flesh there will be less difficulty in getting mares in foal and the foals will come stronger than they do when sired by pampered, under-exercised stallions.

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Lessening Losses in Foals and Foaling.

of stock is not in active demand upon the market, farmers incline to neglect this class and pay more attention to other stock on the farm. This is only natural, but when one stops to consider that with lower prices greater care is necessary to make a profit than when prices are high and demand keen, there is no real good reason why any stock already on the place, and particularly breeding stock, should be neglected in any way. Of late, the horse market has given horsemen some just cause for alarm, and the average farmer with one or two brood mares has been inclined to let the mares take their chance, and has evinced a tendency to let his horse breeding operations "slide" while he is busy with other things. In some instances mares bred last season have not received the care during the winter they should have received, and there may be larger losses this year than usual. However, we will assume that the mares have had good feed and plenty of exercise up to the present. This being so, what should the farmer plan to do with these mares from now until foaling time and for a week or two after the foals have arrived, and which is, as a general thing, the most critical stage? Through the winter mares should have had daily exercise in the open yard, or light work in the team. As a general thing the mare is better to work right up to foaling time, but the work should be regular and not of a spasmodic nature. It is not wise to let the mare stand idle for weeks at a time and then put her at strenuous work, requiring heavy pulling, or last trotting. But through the seeding it will not injure the unfoal mare to be worked judiciously on the harrows, or as outside horse in three or fourborse teams on disc, altivator or drill, provided the ground is solid and the mare is not pushed. It is not generally advisable to put the in-foal mare on the tongue, but sometimes where the footing is good, working on the drill or some implement which does not run heavily will not hurt, providing care is exer-cised in turning at the ends. The mare should not be over-fed, but should not be allowed to fail in flesh. As soon as new grass appears it is advisable to let her feed on this, Natura's best feed for all pregnant animals. A part of the grain ration should be com

posed of bran up until such time as pasture is plentiful, and even after that, if she is worked and requires grain. If she is not working but simply running on grass, she should require very little if any grain until after foaling. It is wise to exercise care in letting the mare on grass when working. Many valuable mares have been lost from acute indigestion brought on by eating grass after a heavy day's work in which they were over-heated and became very tired. We know of one particularly valuable animal which died very suddenly from this cause after feeding on fresh grass for about one-half hour after a strenuous day's work on a very hot day. Grass is the best feed, but the mare must be started on it with care, and preferably when the grass is dry and not after a day's

even in the same animal in different years, but as a general thing it is around eleven months, and it is always wise to be prepared. The mare approaching parturition, if stabled, should be kept in a comfortable box stall where there are no boxes or mangers in which the colt might drop and perish. It is not considered safe to allow a mare to foal when tied in the stall, because, so handicapped, she is not in a position to give the foal necessary attention and it may be lost. As foaling time approaches the box should be kept clean and well bedded down with short, dry straw. Never allow manure to accumulate. Veterinarians advise cleaning the stall out daily just before parturition, and keeping the floor sprinkled with a little

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Causes of Weak Foals.

If the mare has been well cared for throughout the year there should be little difficulty at time of parturition, and the colt, unless some mal-formation occurs, should be strong from the start. A Western writer has given the following three chief causes of weak foals, and they are worth consideration:

1. If the mares when carrying their foals are highly fed on fat-producing feeds and don't get enough exercise, the foal may be well nourished and possibly large at birth, but is not likely to be vigorous.

2. When mares are not given sufficient feed, forced to rustle for it in the snow and about straw stacks, thus becoming very thin, the foal is likely to be small and quite possibly weak. However, the thin mare has a better chance of having a healthy foal than the mare too fat. Some mares lack in constitution themselves and naturally will throw weak foals no matter how handled. Those weak in chest and light in heart girth with short back ribs are not the best brood types.

3. Foals sired by pumpered, fat stallions which do not get plenty of exercise. Such stallions, with reduced vitality, soft muscles and lacking vigor throughout cannot be expected to sire strong foals.

Is It Necessary to Watch the Mare?

The gestation period varies in different animals and

slaked lime which helps to dry it, acts as a deodorizer, destroys microbes and generally cleanses the surroundings.

It is necessary to watch the mare. True, many foals are raised each year which were dropped when the attendant was absent, but as a general thing it is safer to plan to be on hand, and as the mare begins to fall in at the hips and white wax in large drops forms on the teats, it is well for the attendant to keep his lantern well filled and the chimney clean, and have a comfortable bed of robes and blankets in a stall in the stable, and plan not to leave the mare until the colt is foaled. This is a wise precaution because the foal is a delicate animal immediately after its arrival, and the foetus will stand very little during parturition if any mal-presentation occurs and it is not quickly rectified. The enveloping membranes may be so tough and the newly-born animal so weak that it is unable to rupture these, and the mare on some occasions does not rise to perform this operation which nature intended her to do. The attendant must see to it that the foal is given a chance to get air immediately or death results. Occasionally a mare is vicious Where such is the case, if the attendant were not there she might kill or injure the foal; and occasionally the foal is born all right but too weak to rise, and it it does not get attention in a few hours succumbs. Under normal conditions little attention is required after the birth of the foal other than removing wet bedding and supplying fresh, giving the dam a warm feed of scalded bran and chopped oats, and seeing

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that both mare and foal are kept away from drafts. that both mare and foal are kept away from drafts. If the weather is warm when the colt is two or three days old they may spend a few hours on fine days out in a grass paddock. The colt should not be left out nights, even in good weather, until two or three weeks old, and should not be allowed to get wet until four or five weeks old. Precautions taken against these often save colts.

Be Prepared to Prevent Joint Ill.

The most fatal disease in foals is joint-ill or navelknown to the veterinary profession as septic hritis. The attendant should always be prepared arthritis. The attendant should always be prepared to do all in his power to prevent this disease. He should have in the stable before the mare foals some strong cord with which to tie the umbilical cord, strong cord with which to the the unbilical cord, for it is sometimes necessary for him to cut this, as it remains attached to the foal and the foetal membranes. Consequently he should also have a sharp knife. As an antiseptic he should have a ten per cent. solution of crude carbolic acid, formalin, zenoleum or other coal-tar products or a solution of corrosive sublimate, thirty to forty grains to a pint of water. The last named is now advised by some of our leading veterinarians, including "Whip." It is a our leading veterinarians, including "Whip." It is a strong solution, practically non-irritant for external application, and is an excellent germicide. As soon as the foal is dropped and the navel cord severed, the end remaining attached to the foal should be dipped in this solution, or the solution should be applied with a rag. Application should be made four or five times daily until the navel has become thorough-ly dried up and healed, which is usually about the third day. When these precautions are properly observed there will be small likelihood of joint-ill occuring. Where joint-ill does occur it is wise observed there will be small likelihood of joint-ill occuring. Where joint-ill does occur it is wise to get a veterinarian, because, once established, it is difficult to treat, and a cure is doubtful. Specially prepared serum and antitoxins administered only by a prepared serum and antitoxins administered only by a veterinarian, are successful in a reasonable percentage of cases. We do not need to go into the causes of the trouble, as it is now well known that it is a germ disease which gains access to the system through the raw navel cord, and disinfecting this cord is the best means to destroy the germs. The attendant should be careful to keep everything clean about the premises, as dust, dirt and filth make a favorable breeding ground for the germ of the disease.

Persistence of the Urachus.

Another disease which is quite common is known as persistence of the urachus, due to the non-obliteration of the tube called "the urachus," which carries the urine from the bladder during foetal life, but which should become obliterated at birth. It is first necessary to make sure that the urine can escape through the proper channel. In filly foals it may be necessary to throw the colt on her back once daily and dress the end of the umbilical cord with butter of antimony applied with a feather, being sure to get it well down into the opening. Do this daily for four or five days. If this does not effect a cure it will be necessary to get your veterinarian to enclose the cord in a thoroughly disinfected ligature, tightly applied and allowed to slough off. With the male foal where the urine has not been noticed to escape in the normal way a small catheter should be passed to break down any obstruction that may exist. When the urine escapes through the catheter you will know that the normal opening is all right. After you are once assured that the normal passage is pervious it is paced assured that the normal passage is pervious, it is necessary to stop the leakage at the navel by tying the cord if it protrudes sufficiently and repeatedly dressing with an antispectic until healed, or if the cord is not long enough to tie apply butter of antimony with a feather twice daily until the parts become dry and urine ceases to escape.

Retention of the Meconeum.

One of the commonest troubles in young foals is retention of the meconeum. There is an erroneous idea prevalent among farmer horsemen that this is constipation, and that the foal should get a severe purpative. As a matter of fact the trouble is in reality retention of the contents of the intestines at birth. A few hours after the birth of the foal, if it is normal and everything is all right, it will be noticed to pass this material in the form of darkish-colored If trouble is to ensue ineffectual attempts to defecate will soon be noticed. The colt will hump up in the corner of the stall and strain violently, but to no avail. The common practice of giving purgative medicines in cases of this kind should be condemned and never followed. In fact it is not wise to be dosing young foals with castor oil, linseed oil, melted butter and such material with an idea of preventing constipation. The first milk of the dam is intended to and will in most cases do all that is required in the way of acting as a laxative to the foal. Removal of the meconeum is a different matter, as the obstruction is in the rectum and floating colon and treatment should be directed to these parts. Remove all that can be reached with the oiled finger; give an injection of a few ounces of warm water and linseed oil or glycerin and warm water, and repeat this operation every few hours until faeces become yellow. Oc-casionally the obstruction is farther up, and it is necessary to use a tolerably stout piece of wire carefully doubled and the blunt end inserted into the rectum and carefully manipulated. If all these efforts prove unavailing the attendant is justified in administering a laxative of one to two ounces of castor oil at the same laxative of one to two ounces of castor oil, at the same time keeping up the injection and doing all in his

power to remove the meconeum. It is wise with all foals to assist a little in getting rid of this obstruction.

What to Do for Diarrhoea

Occasionally the dam's milk is too strong for the Occasionally the dam's milk is too strong for the colt, or from injudicious feeding or other causes diarrhoea results. The young foal will not stand this disease very long, and it is necessary if its life is to be saved that prompt action be taken. A good, practical remedy is given as 20 drops of laudanum and one tablespoonful of flour in the mare's milk. In very severe cases some breeders use lime water and catechu one tablespoonful. As a general thing castor oil and laudanum are used to get the foal over castor oil and laudanum are used to get the foal over this trouble. It is well to reduce the amount of milk and give castor oil to the extent of from two to four ounces following up with a little laudanum.

The Orphan Foal.

If anything should occur that the mare be lost and the colt live, a substitute for its mother's milk must be found. It is best to select milk from a newlycalved cow and to add to each pint a good table-spoonful of brown sugar and three to five tablespoonfuls of lime water and feed it hourly at first, onequarter of a pint at blood heat. An ordinary nursing bottle, or an old teapot with the spout wrapped or covered with the thumb of a glove, will answer. Watch the colt carefully and increase the quantity and of course to make the best growth they should

run with their dams on pasture.

LIVE STOCK.

Feeding and Grassing Steers.

The tenth day of May, 1916, will see a great number of partly finished steers turned to grass in Ontario. Some will probably be obliged to weather it two, three or four days prior to that date, but if the silo holds out and the hay and straw still last, some steers may have stable fare till the 12th. or 15th. However, May 10 is the time-honored day for turning to grass and out the majority of the cattle must go. Having in mind the last few years there is no apparent decrease or increase throughout the country this season in the number of grass steers. Feeders report about the same number and about the same degree of finish, but they lament the advent of the dairy cow and the consequent lack of quality in the feeder stock of the country. One can still go to stables and find one or two loads of the broad, deep, well-fleshed kind, but the feeder who has acquired them no doubt did considerable driving or culled them from some stock-yard offerings. Often a "scalper or dealer can supply a good load of steers, but it is all the same—he did the driving. Sometimes it appears as though the quality of the dairy stock up and down the township lines in set method work to the township lines is not good enough to compensate for the loss of many of those short faces, broad muzzles, wide foreheads and deep, well-fleshed bodies that were formerly more numerous. The dairy business is a good business and it can be conducted successfully with two kinds of stock and only two. One type is the out-and-out dairy cow, not only in conformation but in ability to produce as well. The other kind is the dual purpose cow giving 6,000 to 8,000 lbs. of milk per year and dropping a calf that can be reared to make a good feeder. There is place in the dairy business for a cow of either type just described but there is emphatically no place for that mean bovine that does not give suffi-cient milk to pay for her feed and then drops a calf which no man can afford stable room. It is the strictly dairy cow and that no-kind-of-a-cow that oblige the feeder to hunt more and more each year for the kind of a steer that he wants. One class of animal can be excused, the other cannot. However, the dairy business is gaining ground and feeders should not worry for they

always have the alternative of producing their own calves and finishing them as yearlings or two-year-olds. This would necessitate a few alterations in the methods and customs on the farm, but after all it might not be a bad practice for many to adopt.

Steer buying and feeding is a science. Those who think it is not have never mastered it. Many have ceased to feed cattle as a special line, their reason being that the profits are so slim that it is no longer a paying proposition. While this is true to a certain extent, yet there are neighbors of these same farmers who continue in the business with the old-time enthusi-asm and appear satisfied. The writer has in mind a pioneer steer feeder whose neighbors at one time were as energetic in the enterprise as he, but now he is practically the only one in the locality who continues to make feeding beef cattle his one leading pursuit. The others, it is claimed, could not buy to advantage or could not feed economically, so to put it in plain but homely language "they quit". Feeding necessitates considerable capital, much risk is incurred and good management is imperative, but on the other hand there is nothing more alluring to the lover of live stock than a stableful of comfortable, thriving bullocks with good appetites.

Steer feeding apparently runs in districts. Where there is plenty of good grass one will usually find a goodly number of steers, at this time of year, being prepared for pasture. In other localities where plenty of corn, hay and grain can be produced, but where large pasture fields are less numerous the stall-finished steer is more likely to abound. Cattle feeding is influenced by soil, local economic conditions, individual likes and dislikes, and often, to a very large extent, by the particular class of live stock that the farmers of the district may see fit to rear. In the more Eastern Counties of Ontario, steer feeding has, for obvious reasons, never become a prominent enterprise. It remains for the Western and Central Counties to supply the beef cattle of the best type.

The Northeastern Townships of Lambton county, Ontario, have long been noted for a good class of beef cattle. This is not intended to imply that other parts of the same County can be overlooked in this regard, for there are several feeders farther south who can be numbered among the class who know a good steer, and at the same time know how to feed it. In the township of Bosanquet and the northern parts of Warwick and Plympton many farmers feed a few steers through the winter, but in the spring they are sold to dealers who grass them. This includes the greater number of the grass-finished steers, but there are not a few who purchase steers in the fall, feed them through the winter, and finish them on pasture. A. and A. Johnson are spoken of in that district as men who have been quite successful in this direction. When visited recently by a representative of this paper, these feeders had 38 steers in their stable in addition to the cows and young stuff, making about 48 head in all. These had been wintered on cut straw, silage and chop, with alfalfa hay at noon, since the first of March. Three pounds of chop per steer per day has constituted the grain allow-ance all winter, and that will be the amount fed until the cattle are turned to grass, about the 15th of May. Messrs. Johnson follow the custom of giving their steers a good fill before turning them out. In this way they do not fill up so quickly on the fresh grass, the change is more gradual, and a case of bloat has never resulted on the farm mentioned. With this kind of moderate feeding a gain of 150 to 200 pounds is expected in the stable during the winter months, and a similar increase is looked for on the grass. The bunch of steers finished previous to these were put in, weighing from 1,100 to 1,125 lbs. They weighed off grass at about 1,500 lbs., thus showing a total gain of 375 to 400 lbs. These steers were sold in the late summer and had several months on grass.

It appears the custom for stockmen in the same district to feed in much the same manner. A neighbor of the gentlemen previously mentioned, William Smith, has fed 30 steers through the winter. They were fed the same amount of chop and a similar amount of



A Good Bunch of Steers Making Gains on Grass.

roughage to those already described. Another neighbor, David Taylor, feeds only two pounds of meal per day, but adds a pound of corn meal to this about the first of March. The steers also have one feed of hay per day all winter, the hay being mixed, clover and timothy, but some alfalfa hay is fed in addition. The 16 steers in this stable gave evidence of careful feeding and attention. Practically the same gains are looked for by Mr. Taylor with this slightly different method of feeding to that previously mentioned. Another stable visited was that of P. J. McCallum. His barn is given over entirely to feeding steers. The stable is divided into two parts by a long feed rack extending almost the entire length. Twenty steers are allowed to run loose on either side of the rack and there

Another stable visited was that of P. J. McCallum. His barn is given over entirely to feeding steers. The stable is divided into two parts by a long feed rack extending almost the entire length. Twenty steers are allowed to run loose on either side of the rack, and there is feeding accommodation for exactly forty head. The attendant carries the feed off the barn floor into the rack, which is elevated above the floor of the stable. These steers were being fed a mixture of silage, cut straw and cut corn stalks, the proportion being about ½ silage, ¼ straw and ¼ cut stalks. The chop consisted of oats and barley, of which they received, on an average, about 5 quarts per day. The animals were a well-chosen lot, and had done well. They, too, will go to grass on May 10 or thereabouts.

A Little Talk on Annual Pastures.

It is said that the weather in succeeding years goes to extremes. If such is the case, 1916, following a year of unprecedented moisture, may be dry. At any rate, many farmers who have a large stock to pasture and who have broken a large proportion of their land ready for spring grain and roots may feel obliged to provide some extra pasture in the form of an annual crop sown this spring immediately after the cereal seeding is completed. We have tried two different crops for this purpose at Weldwood, one of them being a mixture which Prof. C. A. Zavitz has recommended for several years, and which in trials for seventeen years at the Ontario Agricultural College gave the highest yield of pasture during the summer, and we also tried another crop very similar, only that the sugar cane was replaced with a fairly heavy seeding of hairy vetch. This was two years ago, and that year the mixture containing the vetch gave us a much heavier yield of pasture than did the other mixture Prof. Zavitz recommends sowing 51 pounds of oats, 30 pounds of Early Amber sugar Cane, and 7 pounds of common red clover per acre. This makes a total seeding of 88 lbs. per acre. The oats and the sugar cane are mixed together and are sown from the grain box of the seed drill, while the clover seed is sown in the usual manner from the clover seed box, spouts set ahead of the tubes of the drill. The purpose of the crop is to have green feed throughout the summer. The oats come on early, the sugar cane arrives in the hot weather of mid-summer, and the clover supplies the fall pasture. The crop which we found to beat this was about the same amount of oats per acre, with a heavy seeding of hairy vetch and 7 lbs. of clover. However, this latter crop cannot be considered this year, as hairy vetch is quoted by seedsmen at something over \$20 per hundred pounds. It is ordinarily worth somewhere around \$5 per bushel, so the seeding is expensive. The difference in soil must always be considered for annual pastures as well as for other crops. The soil at the Ontario Agricultural College is friable. well-drained, comparatively early and loamy; the soil at Weldwood is heavy, more difficult to drain, later, and inclined to be colder. We found that the oats and the clover did well in Prof. Zavitz's mixture, but there was not enough sugar cane to make it worth while in the mixture. As will be remembered, it was a fairly favorable season in 1914. We have discussed this mixture with several people, and most of them found that they had difficulty in getting the sugar cane to amount to very much on their land. Sugar cane does best in a dry, hot summer and for this reason it may be advisable to add it to the mixture, because it is the dry, hot season in which annual pastures are most profitable. However, for heavy land or land that is inclined to be cold, the oats and the clover alone make just about as good a crop as will the entire mixture. It would be a fine thing if our investigators could pro-duce some crop that would do well universally over Ontario in which sugar cane was replaced by some other plant which would furnish pasture between the flush of the oat growth and the best of the clover growth which comes late in the fall. Last year, on the farm proper, at the Ontario Agri-cultural College, a very successful pasture was composed of one bushel of wheat, one of oats and one of barley per acre and seeded to red clover, timothy and alsike for the following year. Prof. Leitch, who used this mixture, thinks a great deal of it. Of course, last year was a wet season and the crop grew well throughout the entire year and produced an abundance of feed. The objection that some have to this crop is that in a year it is inclined to grow rapidly and produce much ford at first, but falls down in the hottest doest period during the midsummer season. How event the mixture has given success and is worthy of one distation, and until something better is found which likely prove more primeble, particularly on heavy mat such soil, than would the mixture containing sugar There is one peint which should always be re-membered, and which is extremely favorable to the annual pusture (roo), and that is the fact that clover almost always critices well at d produces a good crop then the part of the well at d produces a good crop

Whole Milk for the Dual-purpose Calf.

The calf from the dual-purpose cow usually gets a different treatment from that given the pure-bred animal bred and reared for beef alone, or with beef the one main object in view. While it is generally believed, and has been many times shown that the early days of the calf's life are those in which it is more necessary than at any other time that the calf receive plenty of good feed and judicious care, those special-izing in dual-purpose cattle do not believe in allowing the calves to suck the cows. In the first place, cows would not be pushed to a maximum milk production and in the second the calf would get so much whole milk if its dam was a good milker, that it would develop beef tendencies to a greater extent than milking pro-pensities. We believe that the calf to be raised for a dual-purpose cow or sire should be well fed from the time it is dropped, and as a general thing it would be advisable to continue feeding the calf whole milk for some time, and then gradually change from whole milk to skim milk. We would not advise stopping the whole milk while the calf was yet very young. Scouring may result, and anyway the calf's growth and general condition would be impaired by substituting skim milk entirely. Besides the whole milk some of skim milk entirely. Besides the whole milk, some of the proprietary calf meals, linseed meal or some such concentrate as bran and oats should be fed and the youngsters given all the clover or alfalfa hay they will clean up. We would rather take chances on the cow or bull which had been kept in good flesh when a calf and on up through its earlier months and years, than upon one which had been fed a small ration, little more than a maintenance ration, and grew up thin, peaked, partially stunted and lacking in vigor. It is generally better to have a little flesh on the animals when they start their first lactation period to milk down than to have them commence low in condition and never prove profitable.

A Scourge Which Can Be Combated.

Bovine tuberculosis is a peculiar disease. A few days ago we heard of a cow being killed which had been in an isolation tubercular stable for seven years, with other cows affected with the disease. She, herself, re-acted from time to time, but never showed clinical symptoms of the trouble. When killed, practically the only lesions found in her carcass were located in the throat. Her liver appeared to have been at one time affected but had healed up. In the same stable are cows giving heavy yields of milk, some over 20,000 pounds in a year. Most of them show no effects of the disease and yet react. Some years ago we remember seeing a cow which had been affected with the disease for some time. She showed clinical symptoms, but milked heavily right up to the time she was killed, and when killed, several very large lesions of the disease were found—in fact, so badly was she affected that one would wonder from looking at her carcass how she lived. No doubt, many cows have the trouble, but it is not known to their owners. Where testing is done and the cows isolated and the calves taken away from them as soon as dropped and reared from milk from healthy cows, it is possible to use the diseased cows in the breeding herd and to produce a number of healthy calves from these heavy yielders which have fallen a prey to the disease. Calves are born as a general thing healthy, and if put in healthy surroundings, away from their diseased dams and fed on the milk from other and healthy cows, grow up all right. It is too bad to discard the best cows because they react. Young stock from cows in the stable already referred to are perfectly free from the disease, but have never, of course, been exposed to it.

Alfalfa Safest for Breeding Ewes.

Breeding ewes, without exercise, generally give trouble. A few days ago we noticed at the Ontario Agricultural College a flock of ewes of different breeds which we remarked as being over-fat, but which were producing a large number of smart, thrifty lambs. It is held by those in charge that the reason for these ewes being so fat is that they have had a liberal supply of well-cured alfalfa hay all winter. They have had no grain, but have laid on flesh all the time. In one part of the pen were three Leicester ewes with seven lambs living. They had eight and were raising seven. Ordinarily ewes as fat as these were, and housed in a comparatively small pen without an outside yard in which they could take exercise at will, give some trouble at time of parturition. Grain-fed ewes or ewes fed on grain and a heavy ration of roots kept under such conditions would sufely produce flabby lambs, which would increase the number of cases of difficult parturition and increase the losses in the lamb crop. Those in charge believe that alfalfa is one of the safest and best feeds for breeding ewes, particularly where the ewes get a limited amount of exercise. It would be equally satisfactory, however, where the ewes got the maximum of exercise. were being fed. Of course, they were sucking the cows, but calves four, five and six months old were getting, besides all the good hay they would eat, about three pounds per day of a mixture composed of half rolled oats and half bran. It looks as if this was a good mixture of grain for the calf being raised as these calves are, in fact it is not a very bad grain mixture for any calf.

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Making Pork Rapidly.

No hard and fast rule can be laid down regarding the breed of hogs or kinds of feed that will give the most satisfactory returns. A good deal rests with the care and attention given by the feeder. Some feeders claim to make large profits from feeding hogs while their next neighbor with the same breed of hogs, similar style of pen, and same variety of feeds barely meets expenses. Armstrong Bros., successful York county farmers, feed their hogs a little differently from most feeders but they secure very remunerative returns. Three Yorkshire sows of splendid type are kept and bred to a Tamworth boar. They have left large litters that do well both summer and winter. One sow raised three litters, of ten pigs each, since February 1, 1915, and is due to farrow again in May. The pigs are housed in a frame building which is ventilated by leaving two the four windows out all winter. In case of a storm, a bran sack is hung over each opening and the pigs never appear to suffer from cold. The pen has a

a bran sack is hung over each opening and the pigs never appear to suffer from cold. The pen has a concrete floor which is kept well bedded. When the pigs are two weeks old, they have access to sweet skim-milk and soon learn to supplement their regular ration. The custom is to wean the pigs when four weeks old and feed them principally on skim-milk for a few weeks. While the majority of feeders consider middlings and finely ground oats almost indispensable for starting young pigs, such feeds are not used for hog-feeding on the farm in question. Wheat and barley chop in equal proportion comprise the grain ration until the hogs are about four-months old, then the grain ration is composed of two-thirds wheat to one-third barley. Mangels are fed the growing pigs and dirt from the root house is thrown in the pen. On the feeds mentioned, one pen of nine would average about 150 pounds at four months old. Another litter of nine, farrowed November 6, averaged close to 190 pounds April 6. Six of this litter weighed over 200 pounds, but three were smaller. Last summer these same needers had two sows farrow June 8, and seventeen hogs were shipped Nov. 29, which averaged 200 pounds. These results with both summer and winter litters show that the method of feeding is giving satisfactory returns. The supply of skim-milk, the pigs

Without a liberal supply of skim-milk, the pigs could not be weaned so young, and wheat and barley would probably be too strong a feed for young pigs. On this farm skim-milk is valued highly. Another feeder might not have any success in feeding the ration outlined. The majority of hog raisers prefer to allow the pigs to remain with the sow until they are at least six weeks old, and then start them on skim-milk, middlings, and finely ground oats, using the heavier feeds for finishing.

Grading Wool and Flock Management.

Editor "The Farmer's Advocate":

A few years ago my brother and some of the neighbors took a liking to the Dorset breed of sheep. They started raising them and were producing a class of wool inferior to none, or very little, being put upon the market. Others were keeping either Lincolns or Leicesters. Their wool was coarse and of poorer quality. The wool was at that time mainly marketed at the woollen mills in Kingsville. There was a slight difference paid in favor of the finer wool but nowhere near enough to compensate for the difference in the weight of the fleeces. This difference in weight amounted to say from 4 to 6 lbs. per fleece, while the spread in price was only about four or five cents per pound. Thus the fine-woolled breeds were shearing, say, an average of 6 lbs., which sold at around 22 cents per lb.—\$1.32. The coarse or long-woolled breeds sheared an average of 10 lbs., and sold at 18 cents per lb.—\$1.80. The result has been to drive many from keeping short-woolled sheep. When the war started the woollen mills were closed because of a shortage of dye stuff. Since then the wool has in most cases, I believe, not been graded at all, because the men who bought it did not know how to grade it. This does not hurt me, because I keep Lincolns from preference. I am conducting things in a way that seems new to most people. I have a tag put in the ear of each sheep. This contains my name, and they number from L up. Then each one has a more in a note from 1 up. Then each ewe has a page in a note-book kept for the purpose. The number and sex of the lambs she drops also the weight of wool she shears are put down. The lambs are tagged before they are weaned, and the number of the dam is put down on the record of this lamb. I am using pure-bred on the record of this lamb. I am using pure-bred rams which shear a heavy fleece, and are desirable in other ways. I hope to build up a flock from heavyshearing dams and with a tendency to throw a large proportion of twin lambs. My flock last year sheared an average of 13 lbs. of wool each. But individually this runs from 11 to 16 lbs., and you could not always tell by looking at or handling these sheep which

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by sheepme twins so far the same ra year produc duced over in never in poo They weane ran with the from Februa lamb. The any shepher. Essex Co.,

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asks the forego We are going but in the me attention of t in this countr cruiting in (The situation, is unhappily n in recent issue districts in O time they were man to each 1 districts. Rec. since then. T been practical methods of rec jibes of over-ze his hired man good British bl through those a large percent raised on the fa more necessary send to Flander it is to produce food and farm p But, while the uous on the par cultural Departm duction and Thri must be in the ledge of the agr the farm boy, w large farm, migl duction and Th paper read in his man to tackle h have heard that advertisements also of farm home which might be s while other farm upon to enlist. for production a We have many t We would not for who thinks he ca question for the conditions and all who is to say wh The Militia Dep who can be induc who undoubtly con have remained wh the front. Ontario Provinces. The p selves to new con-Ontario. City inc ginning to feel the its best men. The acute. What can Ontario Legislatur both sides of the H and manner of re for this province in ities do not see th

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Oats and Bran for the Calf.

The beef-bred calf must be kept growing from the start. In the pure-bred herds it generally sucks the cow from the beginning. As time goes on it is necessary to give some grain, pulped roots, silage and alfalfa or clover hay. In looking over the beef herd at the Ontario Agricultural College a few days ago, we remarked that never had we seen, at that Institution, a better lot of calves, all in excellent condition and apparently good doers. We enquired as to what they

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would shear the most. Some also seem to have a tendency to produce only one lamb and sometimes that one is small. The largest ewe did not shear well, and she produced the smallest lamb (a single) in the flock, despite the fact of there being some triplets besides many twins.

I should like to hear a discussion on the question by sheepmen as to what controls the percentage of twins so far as it is known. For instance, this spring the same ram mated with the same ewes which last yeas produced over two-thirds twins, this year produced over two-thirds single lambs. The flock were never in poor condition at any time during the year. They weaned the lambs themselves, and the ram ran with them all summer and fall. The lambs came from February 13 till March 15. They were all with lamb. The ram is two years old this spring. Can any shepherd tell me the reason for this result? Essex Co., Ont. R. A. JACKSON.

THE FARM.

To Farm or to Fight-Which ?

I have no help on a two-hundred-acre farm and cannot employ any skilled help. My man has enlisted. He was with me twelve years. How can I handle this farm to make it pay?

A Wellington County, Ontario, correspondent asks the foregoing question of "The Farmer's Advocate." We are going to discuss the question in our next issue, but in the meantime we would just like to draw the attention of the military and agricultural authorities in this country to the effects of lack of system in recruiting in Canada, particularly in rural districts. The situation, as depicted in our correspondent's note, is unhappily not the exception but the rule. We have, in recent issues, published letters from many different districts in Ontario showing that there was, at the time they were written, only about an average of one man to each 100 acres of land in the main agricultural districts. Recruiting has been vigorously pushed since then. The farmer's son and his hired man have been practically forced to "join up", through the methods of recruiting sergeants and the taunts and jibes of over-zealous civilians. The farmer, his son and his hired man are not "yellow". They have just as good British blood in their veins as that which courses through those of any private or officer in the army, a large percentage of whose volunteers were bred and raised on the farm. If they could be assured that it is more necessary right now to recruit, train, equip and send to Flanders an extra 100,000 or 200,000 men than it is to produce an extra 100 million dollars worth of food and farm products in 1916 then they are all ready. But, while the recruiting methods become more strenuous on the part of the military authorities the Agricultural Department is sending out an appeal for "Production and Thrift." Which is right? One or the other must be in the right and from a fairly intimate knowledge of the agricultural situation it would look as if the farm boy, who is the only help his father has on a large farm, might be justified in flaunting the "Production and Thrift" advertisement, clipped from the paper read in his home, in the face of the first military man to tackle him about donning the khaki. We have heard that some boys are already saving these advertisements for this purpose. We have heard also of farm homes where there are boys in large families, which might be spared from their own particular farms, while other farm boys, only se upon to enlist. There is need for men. There is need for production and thrift. What is the remedy? We have many times advocated system in recruiting. We would not for one moment advise any boy or man, who thinks he can and should, not to enlist. It is a question for the individual to decide under present conditions and all who can be spared should go. But who is to say who can be spared and who can not? The Militia Department apparently would take all who can be induced to go. Already men have gone who undoubtly could have done more at home and men have remained who might have been of more service at the front. Ontario is in about the worst fix of any of the Provinces. The people of the West can adapt themselves to new conditions to better advantage than in Ontario. City industry in this old Province is beginning to feel the pinch caused by the loss of many of its best men. The condition on the farms is much more acute. What can be done? We understand that the Ontario Legislature has appointed a committee of both sides of the House to consider the matter, method and manner of recruiting. There is a ray of hope for this province in this move. If the Dominion authorities do not see their way clear to act, perhaps the

THE FARMER'S ADVOCATE.

Provincial authorities will plan something. There can be no question but Ontario has been doing and is ready to continue to do her share in the war. It is certain that, with system, there would be less trouble in filling up the ranks of new battalions. Why not try it? The new committee could not make a more populat and more needed move than to devise a scheme that would eliminate the intimidation from recruiting, would protect those who have offered and been rejected, would protect the munitions or food producer who is actually needed at home, and would show distinctly where the men are that should go. Call it enrolment if you will, or whatever you like, but for the sake of the Province, the country and the Empire, for the sake of the men (not yellow or cowards, but brave and ready to do the best thing for this country the minute they know what that is), for the sake of agriculture and industry, and to raise the required number of men quickly, let there be appointed committees in every county or municipality composed, if thought advisable, of one agricultural member, one member representing urban industry in the county, and one military man and let them decide which men and boys could be spared and which would be of more service at home. To those who have already been rejected as unfit give an armlet or badge, to those absolutely indispensible on the farm, in the factory, or to the country's national efficiency give some like badge or armlet to indicate to the military authorities and the general public that they are doing their best duty, and let those who can be spared be told in plain English that their place is in the army. Of course it would have to be left with them whether or not they enlist, but after going before such a committee there would be no other road open and the men would respond readily when their duty was fully understood. Such a system would be a start toward efficiency, would fill the ranks and would be the best safeguard to industry, to the country and to our army. What will the committee of the Legislature do? We feel sure they will recommend some system-if not the one mentioned some other, we hope, even better. The safety of Canada lies in her national efficiency and her national efficiency is based first on what she can produce from farm and factory. Farms cannot be farmed without men. Is it necessary to farm this year? It is if it ever was. If it is even more necessary that farmers fight they should be frankly told so.

Telephone Incorporation. Editor The Farmer's Advocate:

There has been a question agitating the minds of a great many farmers that has caused a great deal of indignation among them, and yet we have never seen it mentioned in any of the agricultural papers. In the early winter the secretaries of rural telephone lines were notified that a section had been added to the Ontario Telephone Act requiring all telephone companies to become incorporated, with two exceptions, viz., lines or sections owned by municipalities and systems owned by an individual or partnership of less than five persons. In January the Ontario Railway and Municipal Board wrote the secretaries explaining this, and adding that it would not be proper for this Board comment upon the action of the Legislature further than to say that the Board has been very strongly impressed with the necessity of placing all telephone systems upon the same basis as regards and also calling our attention to the fact that each shareholder is at present personally liable for all debts incurred on behalf of the system. Now, I might say that I don't think that the farmers could have desired or asked to have this protection imposed on them, for I have not yet met a farmer in our county who had anything to say in favor of it. The request has come from somewhere else. Some companies paid over their \$25.00 fee feeling, "We do it because we must." while others are still waiting. An agent of the Bell Telephone Co. told us that he had orders not to connect any new lines or renew any agreements with any company that was not incorporated. Evidently the Bell Company favors the move. Now, what we would like to know is: What is the real idea? Is it to put us in a position where our system can be taxed, or is it to provide a little more protection for the Big Interests? Some time ago Peter McArthur said that he didn't put in a telephone because he ob-jected to having to talk things over when he didn't feel like it. I wish now that he had as he might have been telling us a thing or two about this new piece of legislation ere this. The establishing of rural telephones is one of the few ways that farmers have found to co-operate successfully. Then why not leave them alone and let them incorporate when they wish to do so, or is it the fact that the poor farmers haven't brains enough to control a little telephone system of their own without assistance from the Government?

Be Careful of the Example Set. EDITOR "THE FARMER'S ADVOCATE":

I hae been daein' quite a bit o' meditatin' an' thinkin' one way an' anither this past winter, av l've been gaein' aboot ma wark, attendin' tae bossies an' such like chores as will aye be waitin for ye on the farm, an' I hae been wonderm' some times what's comin' tae us a', wi' "wars an' rumors c' wars" in ilka direction, an' no daylicht showin' yet as we can see onyway. Gin a mon's liver was oot o' order ye couldna' blame him for gettin'a wee bit blue at times over the prospect. But there's na money in that, an' I dinna' want ye tae think that I'm in the way o' bein' discouraged masel'. There's a purpose in it a', an' we'll maybe see it some day. If not, then future generations will. Sae long as there is wickedness in this auld warld it has tae come tae a head once in a while, an' then humanity gets its medicine an' punishment oot o' the same bottle. Those that need it maist dinna' always get the biggest dose, but when it's a nation that is sick ye canna' stap tae discreeminate. When money makin' an' pleasure-seekin' begin tae tak' up the best pairt o' the life o' ony people, something has tae be done, an' done quick, too.

But what I was wantin' tae speak aboot in connection wi' a' this concerns what, I'm thinkin', has mair influence on us juist at present, an' maybe at ony ither time than onything else in the warld. I hae juist been readin' a poem by auld Matthew Arnold in memory o' his father, wha, it seems was somewhat oot o' the common rin o' men, an' wha was evidently an' unco' inspiration tae his son. He says: "through thee I believe in the noble and great who are gone." The idea seems tae be that gin he hadna' kenned his father sae weel he wad be dootin' that sic like men had ever lived, except in the imagination o' those that were tellin' aboot them.

Sae here is what I say influences us mair than ony thing in life. The force o' example. It's pretty nearly as natural as breathing for us tae imitate the words an' actions o' ithers that we're much in company wi', an' mair especially gin we hae a high oppeenion o' them. Ye can notice this tendency children mair than in grown people, but it's a habit that is common tae humanity. Sae that is why I say, that at the present time the greatest effect oor soldier boys are exertin', even when they are in the firin'-line, is through their example tae the folks at hame an' tae the warld in general. Life an' health are the twa things that mankind as a rule set main value on, an' these are baith being sacrificed by the tens o' thousands o' oor soldiers wha are willin' tar pit country an' hame first. Dae ye think ony-thing can hae mair effect on the warld than an example like this. Will we wha are left behind think o' shirkin oor duty o' supplyin' the means o' carryin' on the war an' carin' for the wounded, when the boys are settin the pace for us by giein' their lives. There may be some that are proof against the force of example wher some that are proof against the force of example wher it comes the pryin' them apart frae their dollars, but they're no' in the majority, I'm thankful tae say, an' they're gettin' less ilka day. Sae I'll be thinkin' an' hopin' that this war will dae a guid deal for us maybe, affer a'. We canna' sit still an' see ither practically giein' their lives for us. We're bound the belo the thing through in some way, an' by foltae help the thing through in some way, an' by followin' the example o' ithers we may be settin' an example for someone else. Ye canna' tell. Guid wark spreads juist as fast as bad, though some dinna think it. Did ye ever think o' why some men day sae muckle mair guid in their neighborhood than ithers? They mayna' be able tae talk vera lang at a time, an their bank account mayna' be o' ony great import ance, but when ye want help tae get some wark done or ye are in trouble o' ony kind, it's tae them ye gang, an' they niver gae back on ye. Dae ye think the example o' a mon like that is no felt, an' followed too, tae a degree, by ilka person that comes intae contact wi' him. I mind o' an auld meenister we had in the place at one time. He stayed wi' us for seventeen years, an' in a' ma life I never heard onyone say a' bad word aboot him, except that he wis no' muckle o' a preacher. He wisna' what ye wad ca' a great orator, but he wis a hard worker an' easy satisfied when it came tae pay. He got aboot forty pound a year, an' a few acres o' land thrown in tae help him pull through. Between warkin' this land an attendin' tae the ither duties that cam' his way he was kept busy eneuch, but he never complained, an' neither did ony o' his congregation, for the mais critical among them couldna' pit theit finger on a' crooked thing in his life. An' the point is that the influence o' that auld meenister's example is felt tae this day in the lives o' some o' his people an' their children. An' no one can say when it will end. That's the best o' a guid example, an' the warst o' a bad one Its influence may hang oot for a thousand years, an' mair. Judgin' by the way the maist o' us gang through life ye wouldna' think it wis a vera muckle importance, but gin ye stap tae think a meenute o the possible consequence o' ony action, it's eneuch tae mak' ye find oot for sure that ye're on the richt track before ye gang vera far. There are twa things that we need tae be mair than particular aboot, an' they are the example we set, an' the example we follow. This includes the last, an' the example we follow. This includes the hale duty o' man, baith tae his fellow-man an' tae himsel'. An' since it's sae easy these times tae find guid examples tae follow, we'd maybe better gie a wee bit mair attention tae the ither side o' the problem and mak' oorselvee intae an example that it willna' be dangerous for onyone tae copy. It can be done, they say

R. M. WARREN.

Renfrew Co., Ont.

SANDY FRASER.

FUJI MICRO SAFETY -

THE FARMER'S ADVOCATE.

"Doubling-up" the Implements.

To secure suitable help has been difficult on many tarms for years, but this spring the problem is more scute than ever before. The call for young men to seep the ranks of the army filled has drained the country tistricts, as well as the cities and towns, of their stalwart rouths. In many communities there is not an average if one man to one hundred acres. Improved implenents have done a good deal to lessen the arduous abor of the farm, but with the most modern farm mplements men are still required to sow and reap in wrder that humanity may be fed. With an ever di-ninishing supply of farm labor, how is production of coodstuffs to be kept up to normal? A kind Providence may send a bountiful harvest, but man must prepare the seed bed, sow the seed and garner the crop. Neces-try is said to be the mother of invertion and so the ity is said to be the mother of invention, and so the iller of the soil devises ways and means of accomplishing, ingle-handed, what two men are usually required to do.

The sooner the seed can be sown, after the land is eady to work, the better the returns from many of the pring crops. Cultivating, rolling, sowing and harrowing ake time if one man is required to go over a field several This spring there is an abundance of horseimes. power, and, by use of wide implements, the work can be done more quickly than if narrow cultivators and meeders are used. Four horses hitched to a cultivator in disk, and three horses to a drill, can be kept going iteadily throughout the day, and if the driver rides, he is not too wearied to do chores in the evening. The use of the harrow-cart is becoming common, and with four borses hitched to a wide harrow a large acreage can be sovered in a day. However, there are farms on which narrow implements are kept, and the owner is not in position to exchange the old implements for new and wider. He may overcome the difficulty of shortage of man-labor by using two implements at once. We have seen men driving one team on the cultivator or irill and leading another team hitched to the harrow. In this way the work was accomplished with only slight nconvenience to the driver.

Possibly a lesson might be taken from the users of 'arm tractor power. By use of power two or three wide

implements are operated by one man at one time. Four horses could draw a narrow cultivator or disk with the drag harrow attached behind. The same would work with the drill, and when the grain was sown, the ground would also be harrowed. This method of using horse-power and fewer men to do the spring cultivating is followed quite satisfactorily on some farms. Some go even farther and attach roller and harrow to the cultivator. In preparing the ground for spring seeding, or for roots, corn, summer-fallow or fall wheat, the soil requires the use of several implements. By making use of horse-power and using two implements at once, the work may be done more quickly. True, working the implements tandem may be a little inconvenient at first, but it is one method of giving the soil the necessary cultivation at the proper time even with a scarcity of of farm help.



The First Catch.

THE DAIRY.

The Final Ruling Re Cheese Boxes. In the summer of 1914 a meeting was held at Montreal, where several interests affected by the produce

trade were represented. At this time cheese boxes were discussed, and the outcome was that the specifications printed in the following paragraph were adopted by the Canadian Freight Association and approved by the Board of Railway Commissioners for Canada These were to come into effect on September 1, 1915, but an extension of time was granted setting the date on which they would become effective as December 1 1915. Owing to the fact that a considerable stock of boxes and material is still on hand which do not conform to the new specifications, it was felt that an unwarrantable loss must result from the ruling. The matter was again taken up with the Board of Railway Commissioners and a second extension of time has been granted, making the date August 1, 1916, when cheese boxes must conform to the following specifica-

Note .-- When cylindrical cheese boxes are used as outside containers, they must meet the following requirements:

(a) Tops and bottoms (headings) to be not less than 5-8 inch in thickness, and consist of not more than 3 pieces.

(b) Hoops and bands to be not less than 1-5 inch in thickness

(c) Hoops to overlap at joint not less than 5 inches, and to be fastened with staples or nails not more than 1 inch apart and firmly clinched on the inside.

(d) Bands to be nailed to the heading (top and bottom) as follows: 1 nail on each side of every joint, with additional nails not more than 4 inches apart.

(e) Bottom rim to be not less than 11/2 inches in width, and top rim not less than 3 inches in width.

(f) Covers must fit closely and boxes must be trimmed flush so that the heading of the cover shall rest on the cheese

Cheese in cylindrical boxes not meeting these requirements not taken.

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the work.

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butter at o buttermilk tank, then Usually two depends on t not necessar butter as it i ing the but granules an maker soon salting the uniform proc three-quarter of cream. distributed t is used in t moisture an Just when the been worked the appearan ing it to stan ance of white the butter ha soon become and working butter is rea table where In this creat the butter. a person soo take long to p The butter w Hill Creame Butter is pac The butter in connection A team and commission h manufactured Last year abo but the capac more butter supply of crea to do the wo pasteurizing a **by no** means The engine mu emall utensils as well as the the heavy wor of detail wor making of goo must know ev out a high-clas ing after the result in serior

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have more skin draw or ship. The patrons is attached a s livered is mark pounds of but retained by the for payment.

Every crean to market. If may be retailed ually auctioned it away every d in connection

From Cream Can to Butter Box.

The labor entailed in manufacturing dairy butter **aas** been the cause of dairymen practically ceasing to make butter on the farm. Creameries were built in different sections of the country and there was almost 18 much cash in selling the cream, as in making butter ind the labor involved was considerably less. kim-milk could still be retained on the farm and this **yy**-product is highly valued by most stockmen. Its se facilitates the raising of calves and pigs. The reamery permits of a double revenue from the dairynerd. Competition is very keen among creameries out the bids are for quantity instead of quality in too nany instances. A dairyman need not live close to a reamery in order to find a market for his cream. If re lives near a depot the express will carry the cream nany miles to a creamery. Provided he is not so pcated, the auto-truck from large creameries penetrates he remotest part of the district in search of **ream**. Consequently, there is no dearth of outlet for **he** product. If one creamery refuses to take the **sream**, owing to it being off flavor or of a nature that nay tend to deteriorate the quality of the manufactured roduct, the dairyman immediately transfers his patonage to the creamery that will take it. Herein lies he weak link in Ontario creameries. There is no tandard at present to which all cream must measure n order to command the top price. If one creamery vill not take the cream, another will. Good and bad ream are emptied into the same vat and the result is only nedium-grade butter. All first-grade cream is required o make first-grade butter, and if Ontario dairymen ire to maintain their reputation as producers of highquality products, the producer must receive more for is high-quality cream than is paid for just ordinary When the time comes that all manufacturers vill refuse to purchase anything but the best cream, here will soon be a marked change in the quality deeries do discriminate in the cream hey accept and thus receive the top price for their nanufactured product, which directly benefits the producer, but these men do not receive the support rom the dairymen they deserve. Reesor Bros. own and operate the Locust Hill creamry in York county. These men have built up an acclusive trade, and while their output of butter is not o large as that of some creameries, the quality is firstlass and commands the highest price on the market. Quality sells the butter. The process of manufacture n Locust Hill creamery is similar to that of other reameries, and a description of the labor entailed in athering the fat globules of the cream into the substance **cn**own as butter may not be out of place.

their creamery so that the cream will flow by gravity from vat to churn and thus save the pumping. One room is required for receiving and ripening the cream, another for churning and printing the butter, also an engine room, ice house and storage room are essential. Water is pumped from a deep artesian well to an elevated storage tank. By the use of water alone cream can be cooled to 60 degrees. Engine, boiler, pasteurizer, coolers, vats, churns, butter workers, and testers, are some of the larger pieces of equipment necessary for manufacturing butter. The average creamery building and equipment costs around five thousand dollars. Before investing in a plant, one should be assured of a large supply of cream for a number of years.

Securing the Cream Supply.

Most of the 140 patrons of Locust Hill creamery are engaged in mixed farming. From six to a dozen cows are kept to a hundred-acre farm. The patrons arrange for the drawing of their own cream. Those living near the creamery draw it themselves, or maybe a dozen patrons co-operate and pay one man so much for delivering their supply. The owners of the creamery do not engage wagons or trucks to gather cream, nor do they have any shipped in. They depend on the dairymen in the district to support a home industry. By square dealing, they have succeeded in holding their patrons and having them supply a high-quality cream, in spite of the keen competition for cream and milk from other concerns. Some whole milk shipped from the community to Toronto, and the city creameries endeavor to encroach on the territory now served by the local creamery. It is believed that cream is of better quality when delivered by the patrons than is possible if a truck is used and cream hauled long distances. The first gathered cream becomes partially before reaches the creamery. The same conditions exist more or less when cream is shipped. Sweet cream, testing from 30 to 35 per cent. butter fat, is desired in order to make the best grade butter. The patrons know this and endeavor to meet the wishes of the manufacturers, knowing that by so doing they are directly benefited by it. Consequently there is only one grade of creamin this creamery. Each patron's cream is delivered in a separate can and for convenience in emptying the can the driveway is arranged so that the bottom of the wagon is on a level with the top of the receiving can on the inside of the building. The cream is emptied into this can which stands on scales. The weight is recorded and a copy given to the patron. A sample is taken and put in the composite bottle for testing at the end of the month. After the sample is taken a valve is opened and the cream runs into a large receiving tank. When sufficient cream has been received, the pasteurizer is started and the cream passing through it is heated to 180 degrees Fahrenheit, which destroys any germs that might be injurious. From the pasteurizer it passes over a circular cooler which lowers the temperature to 60 degrees. The cream is then piped to the ripening vat, where it is prepared for churning.

lactic acid bacteria, and is under the control of the buttermaker. The amount of starter used and the temperature at which the cream is held are factors in determining the length of time required for the ripening process. It may vary from six to twenty-four hours in an ordinary creamery. Ripening develops flavor in butter, makes the cream churn easily, and increases the keeping quality of the product. Butter may be made from sweet cream, but it lacks the flavor and keeping qualities of that made from well ripened cream.

Pasteurized cream has most of the bacteria in it

destroyed. Lactic acid bacteria are introduced by use of a starter and a favorable temperature is given for the development of the lactic organisms. By this treatment there is only one type of bacteria in the cream and a uniform quality of butter can be secured from day to day. Starter is the term applied to culture of the lactic acid organisms. Either natural or commercial starters may be used. A natural starter is made by taking whole milk or skim-milk, and allowing it to sour by holding it over till the following day The difficulty is that on warm days milk become over sour, while on a cool day there is trouble to get it to sour properly. Consequently, this method of secur ing starters is giving place to the commercial kind which consists of the proper species of lactic acid organisms prepared in laboratories. These cultures are usually sent out in hermetically sealed bottles, and are used with sterilized skim-milk to make the first starter, after which it is a matter of saving a certain amount of one day's starter to inoculate a can of milk for use the next day. After starters are propagated for some time they become intensely acid producing, and sometimes become contaminated with other bacteria, and many creameries make a practice of renewing the starter once a month by purchasing a new bottle of culture In Locust Hill creamery the commercial starter is used and cream is held over a day for ripening, especially in the winter. The ripening vat used has a water-jacket around it for use in keeping the cream cool Ice is used in this during the summer.

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Building and Equipment.

It is essential that a creamery be located where a iberal supply of clean, cold water can be secured, as a good deal of water is used during the process of man-afacturing cream into butter. The building is subtartially constructed and presents a neat appearance rom the outside. The inside is of material that can be easily kept clean. Many creameries are built with the floors on the level and the cream is pumped rom one receptacle to the other during the process of pasteurizing and ripening. Reesor Bros. have built

Cream ripening is a process of fermentation or souring of the cream, which is the development of

Churning and Working the Butter.

Churning is a gathering together of the fat globules of the cream into butter granules. The temperature, character of butter fat, acidity and richness of cream, amount of cream in the churn, and speed of churn, all have an important bearing on the process of churning and must be regulated by the butter-maker in order to insure an exhaustive churning and leave the butter in a condition in which it can be handled without injury to the texture. Reesor Bros. use a large combined churn and butter worker, and have it located on a floor six or seven feet below the floor on which the vats are placed so that the cream flows by gravity from vat to churn. The churn is scalded, then rinsed with cold water before the cream is strained into it. Butter coloring is added before the churn is put in operation, the amount varying with the season of the year and markets. During the winter about one ounce in one hundred pounds of butter is used, but considerably less is required in the summer. The cream is churned at a temperature of 56 degrees, and from twenty-five to forty-five minutes is required for

feeding hogs Bros. sell the b bood at so muc While the n in all creamerie Some buttermal and others test the weight and may be a better it is doubtful if it of creameries the for testing. Instead of I pack it in boxe butter in solids All buttermakers butter coloring, butter to meet appearance coun Correct weig] maker, in order the patrons is ess up a large busine perform in order a product of fir finished article is used. Every par

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THE FARMER'S ADVOCATE

the work. It is possible to churn over 700 pounds of butter at once. When the butter is gathered, the buttermilk is drawn off and pumped to an elevated tank, then the butter is washed to remove all milk. Usually two washings are given. The rate of salting depends on the market, but the amount of salt used does not necessarily determine the amount retained in the not necessarily determine the amount retained in the butter as it is dependent upon the thoroughness of drain-ing the butter before salting, the fineness of butter granules and the amount of butter. The butter-maker soon finds out the method of working and salting the butter that gives best results, and a uniform product is turned out from day to day. About three-quarters of an ounce of salt is used to every gallon of cream. Care is always taken to have the salt evenly distributed through the butter. A power butter worker is used in these large churns to assist in expelling moisture and to aid in evenly incorporating the salt. Just when the point is reached when the butter has been worked sufficiently is not readily determined by the appearance at time of working, but if, after allow-ing it to stand for four or five hours, there is an appear-ance of white streaks or mottles, it is an indication that the butter has been insufficiently worked. The operator soon becomes expert at regulating the amount of salt and working necessary to suit his customers. The butter is removed from the churn and placed on a table where one man puts it up in one-pound prints. In this creamery a woman is employed for wrapping the butter. By doing the work practically every day, a person soon becomes expert at it and it does not take long to print and wrap six or seven hundred pounds. The butter wrapper is stamped with the words "Locust Hill Creamery," also with a registered number. Butter is packed in flat boxes that hold sixty pounds. The butter is kept in a cold storage building in connection with the creamery until it is shipped. A team and wagon is used to haul the butter to a commission house in Toronto. The demand for butter manufactured in this creamery exceeds the supply. Last year about 180,000 pounds of butter were made but the capacity of the creamery is such that much more butter might be manufactured could a greater supply of cream be secured. Three men are required to do the work. Receiving and weighing the cream, pasteurizing and ripening it, churning and printing, are by no means the extent of the work in a creamery. The engine must be looked after, the floors and numerous small utensils as pails, dippers, etc., must be kept clean as well as the vats and churn. While a good deal of the heavy work is done by machinery, there is plenty of detail work that requires careful attention. The making of good butter is an art and the butter-maker must know every phase of the business in order to turn out a high-class product. A little carelessness in looking after the cream, or in salting and working, may result in serious loss.

Testing and Paving for Cream.

Testing is done only once a month. A sample is taken, from each can of cream delivered, and kept in a preservative until time of testing. When the composite sample is kept in a tightly-stopped bottle to prevent evaporation very satisfactory tests are obtained. For testing, the composite sample is measured out with a pipette into the graduated cream bottle used in the Babcock tester. A large turbine tester is used in order to accomplish the work of testing as quickly as possible. The cream varies from as low as twenty to as high as forty per cent. butter fat, although cream testing from thirty to thirty-five per cent. is preferred by the butter-maker. It is also to the dairymen's advantage to sell a fairly high-testing cream, as they have more skim-milk for feeding and less weight to draw or ship. draw or ship.

The patrons are paid by cheque and to each cheque is attached a stub on which the weight of cream de-livered is marked, together with the test, number of pounds of butter-fat, and the price. This stub is retained by the patron when the cheque is presented for payment for payment.

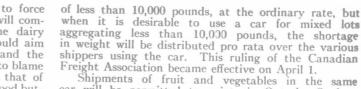
Every creamery has a large supply of buttermilk to market. If located in the city a good deal of this may be retailed, but in the country the supply is usually auctioned off to one of the farmers who draws it away every day. Some creamerymen have a piggery in connection with their plant, and by raising feeding hogs derive considerable revenue. Reesor Bros, sell the buttermilk to a stockman in the neighborhood at so much per hundred-weight. While the main process of manufacture is similar in all creameries, the detail methods vary somewhat. Some buttermakers test the cream every two weeks and others test every can and inform the patrons as to the weight and percentage butter-fat. While this may be a better plan than testing only once a month, it is doubtful if it is any more accurate. In the majority of creameries the sample is weighed instead of measured for testing.

of first grade. Instead of having legislation to force grading of dairy products, in order that they will compare favorably when in competition with the dairy output of other countries, every dairyman should aim at selling materials of a quality that will stand the most severe test. Creamerymen are not alone to blame if Canadian butter is not equal in quality to that of other countries. It requires good cream to make good butter. Dairymen, creamerymen and dealers must not shirk their individual responsibility. With a supply of good cream, properly manufactured in the creameries and the product carefully handled by the dealers, it is possible to have and here Constitute in first it is possible to have and keep Canadian butter in first place in the world's butter markets.

HORTICULTURE.

Peach Pruning Hints for the Amateur.

Amateur peach growers must often wonder at the mutilated appearance of a mature peach tree after an experienced hand has pruned it. In many cases it appears to be all trunk and branches, with only a few twigs left which were ostensibly missed or over-looked by the pruner. Others do not prune quite so severely as this, but the general practice is to keep the centre thinned out and the top more or less headed back. A peculiarity of the peach suggests and warrants this treatment. The fruit of a peach tree is usually borne on wood only one year old; that is, the crop of 1916 will be produced on twigs and shoots that grew in 1015 in 1915. Any wood in the tree which does not pro-duce fruit this year, except that which grows in 1916, can never be expected to bear. Therefore, from the viewpoint of fruit alone it matters little how much of the old wood is taken out, provided enough of the new wood remains. The top must be kept balanced, and for cultural purposes fairly low, and after these requirements have been observed it does not matter how much old wood is removed. The shoots in the how much old wood is removed. The shoots in the centre of the top will eventually die and drop out, so they may as well be removed first as last. In the accompanying illustration, secured through the courtesy of the Ontario Horticultural Experiment Station, may be seen a tree which, by one class of growers, is con-sidered correctly pruned. However, this tree has been treated more leniently than many one will see when driving through the Niagara District. It will when driving through the Niagara District. It will be observed that the centre is quite open. The top is headed back, but there is sufficient of last year's growth left or the left of the sufficient of the suff growth left on the branches to bear all the fruit the



car will be permitted to points in Ontario, Quebec, and the Maritime Provinces. Mixed carloads of fruit and vegetables in lots of less than 10,000 pounds will go as first class. Mixed carloads of 10,000 pounds and over are rated as second class, and carloads of 20,000 pounds and over as fourth class. Formerly there has been a separate rate for fruit and vegetables in mixed lots, but this year shippers will be permitted to com-

bine these small orders with be perimitted to com-bine these small orders with considerable saving. The railways propose raising the initial charge for icing cars from \$2.50 to \$3 per net ton. This is an ad-vance of 50 cents over the present rate. Further-more it is proposed to make a charge for hauling where of 30 cents over the present rate. Further-more, it is proposed to make a charge for hauling the ice, based on the distance the car travels, ranging from \$2 per ton for 350 miles and less to \$10,90 per car for 1,351 to 1,450 miles. When ice is supplied by shipper at point of origin and car is billed "not to be re-iced in transit" it is proposed to charge for haul-ing the ice as follows. ing the ice as follows:

To points in Ontario, (west of Fort William) and Manitoba, to and including Winnipeg...\$10.90 To points west of Winnipeg, in the Province of Manitoba

....\$19.10 and 22.10 If the railway supplies the ice at point of origin the charge will be \$3 per net ton in addition to the above.

This change in tariff is not known, at time of writ-ing, to be final. This matter was to have been dis-cussed before the Board of Railway Commissioners at Ottawa on April 18.

Trees Girdled by Mice in Forest District.

A serious loss has resulted in the Forest district on account of the injury wrought by mice and rabbits on young trees. In not a few orchards along the Lake Shore, and inland as well, a very appreciable percentage of the trees have been girdled by mice. Rabbits, too, were active in the young orchards during the winter, and considerable damage can be charged to these furry animals. Two meetings were called in the district by the Lambton County Branch

of the Ontario Department of Agriculture, on April 4. A. G. Harris, from the Horticultural Experiment Station, at Vineland, was in attendance and gave a practical demonstration of bridgegrafting. By this oper-ation the barks above and below the girdle are connected with a scion The ragged edges and dried bark should be pared away, and after the fresh bark is lifted from the wood, freshly-cut scions can be inserted. The end of this bridge, or scion, must be whittled down so the inner bark of the tree, and the inner bark of the scion can connect and establish the circulation which has been impaired by the girdle. If the scion is longer than the space to



A Well-pruned Peach Tree.

tree should carry. The heading in of the tree will itself in place. Several scions, depending on the size encourage the growth of new wood, which should

be bridged it will hold of the trunk, must be

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Instead of printing the butter, many creameries pack it in boxes as some markets prefer to buy the butter in solids and cut it in pound prints as desired. All buttermakers must regulate the amount of salt and butter coloring, also the method of putting up the butter to meet market requirements. Quality and appearance count for a good deal.

Correct weights and careful testing by the butter maker, in order to win and retain the confidence of the patrons is essential in order for a creamery to build up a large business. The patrons also have a duty to perform in order that the manufacturers may turn out a product of first-class quality. The nature of the **finished** article is largely dependent on the raw material used. Every patron owes it to himself and to the dairy industry to care for his group so that it will be dairy industry to care for his cream so that it will be bring forth fruit the following season. Some growers prefer to leave the top shoots of the tree untouched. In such a case the tree gradually becomes high, and so much new wood is not forthcoming each year.

If pruning is left fairly late in the season one can often thin the fruit while pruning. The buds are borne singly, in pairs, and in threes. When in pairs, one is usually a fruit bud and the other a leaf bud, the former being larger and plumper than the latter. When in threes, the two outside buds are usually fruit buds, while the centre and smallest one is a leaf bud. By cutting back some of the previous season's growth and leaving only a certain number of buds, fruit can be thinned. The one point, however, that should always be borne in mind is that the crop appears on the growth made during the previous season. With this in mind any pruner can shape the tree to his own satisfaction, and strive to develop a tree that will conform to his own ideals.

Railway Tariffs Affecting Fruit Growers.

In a recent interview, Geo. E. McIntosh, Transportation Agent for the Ontario Fruit Growers' Association, mentioned some important changes in tariff rates that will concern fruit growers during the coming shipping season. One change of importance is that no refrigerator car will be supplied for a shipment

exposed wood and injured parts should be covered with grafting wax or white lead and oil, to prevent the wood from drying out. Mr. Harris, however, did not recommend bridge-grafting as a commercial proposition. It was possible, he said, to preserve "pet" trees in this way, but he did not consider it feasible to make extensive use of the practice.

Growers were lax last winter in applying preventive measures to forestall injury from mice. Several winters have passed without any serious loss, and the importance of fortifying against such damage has been minimized. The first three months of 1916 were peculiar. January was exceedingly open, but February and March closed in with continued cold and a steady covering of snow. This prolonged the season and made the supply of food short for ground vermin. The result was injury to the trees. We have good reason to believe that the condition was quite general, as similar injury resulted in Middlesex County and elsewhere.

The orchardists in the Forest district have apparently not yet adopted the best cultural methods, taking everything into consideration. A cover-crop to check the growth of the trees and hold the snow fosters mice. When no cover-crop is used, the wood growth is often excessive and winter injury to the tender branches and twigs is liable to occur. What is to be done?

Several trees were this year girdled in the orchard

at Weldwood. Roots and potatoes were grown on the land last year, and the orchard was plowed last fall. The most injury occurred near fences and buildings, and grass when lying in proximity to the orchard. A circumstance in connection with the girdling there is worthy of consideration. Where the soil happened to be turned up against the tree high on one side, the tree was not injured on that side, but often it was on the other side where the soil was low on the trunk. This suggests that soil banked around the tree on all sides will assist in keeping mice away.

Are liable to thrive, and one will have a growth of vegetation anyway. This might as well be some crop which serves a useful purpose, such as buck-wheat, rye and vetch, or clover. It appears, however, that this should be cleaned away from the trees in that this should be cleaned away from the trees in the fall of the year and possibly, if it was left unplowed between the rows, mice might harbor there and the trees would be spared. This is not sufficient protection. Considerable labor would be incurred one undertook to plow away from the trees and then bank them up with loose soil, free of all vegeta-tion, but this practice should forestall injury. If there is no food in sight in the direction of the tree, mice will not go very far in that direction under the snow. Furthermore, it seems absolutely necessary to protect each tree with some kind of wire screen, or wrapping paper. The latter could be put on before the trees were banked up so the soil would hold the bottom of the paper securely to the trunk. Tramping the snow is also effective.

Before another winter closes in feasible preventive measures should be decided upon and practiced. It is a considerable loss to have apple trees girdled that are just beginning to fruit, and the same is true of all fruit trees. Fruit-growers have been lax in this regard, but the serious side of it has been pre-sented to us, and the early months of 1917 should find everyone prepared.

POULTRY.

A "Fool-Proof" Method of Feeding

Chicks.

feeding chickens? One of the greatest drawbacks to the success of raising chickens on a large scale, which

necessitates hatching in incubators and brooding ar-tificially, has been the percentage mortality in the chicks. The blame for this has been largely laid to the

incubator and the brooder, but there may be something

in the feeding. In days gone by many chicks were

killed by being fed too much immediately after hatching. It is now fairly well understood that chicks should not

get anything to eat for at least a day or two after they are out of the egg and that their first feed should be

given with care and not in too large quantities. Work-ing on the assumption that there is a "fool-proof"

method of feeding chicks by which anyone can feed

them who has a time-table, a little energy, scales, the

necessary feed, and an alarm clock to get him up in the

Is there such a thing as a "fool-proof" method of

morning early enough to feed them and to keep him advised as to time during the day, a trial is being made at the O. A. C. The writer recently saw over 2,000 baby chicks being fed on this system. five feeds a day, besides one filler consisting of all the pulped roots dried with rolled oats they will eat. They are started on five ounces of feed to fifty chicks and are fed at 6.30 in the morning, 9 o'clock, 11.30, 2.30 and 5.30. The first feed consists of a boiled egg, which has been boiled for one-half hour, mixed with what rolled oats it will moisten to every fifty chicks. These rolled oats are the real breakfast food variety, having no hulls. The kind you eat on your table the chicks relish and thrive on. They are "Scotch" chicks, only the drinking fountains in the pens are kept well supplied with clean water, and buttermilk or sour milk. At this rate of feeding the chicks apparently get hungry, in fact are hungry a great deal of the time, but they are smart, lively little fellows, always on the job and the percentage mortality, including the inevitable number of cripples and defective chicks is very low so far. This method of feeding is in the experimental stage, and it may or may not "pan out", but we never saw 2,000 chickens in one place with such a small percentage of delicate, weakly individuals, and such a large number of the vigorous, healthy, rustling sort. One would think to look at them that they had all been hen-hatched and had been reared separately, one clutch from another, on clean ground. If it is found by further experience and experimentation that this method of feeding chicks is better than the old way of over-feeding them, there is no reason why anyone cannot practice it, for rolled oats are in almost every house, and the other appliances are on every farm. All that is necessary is to weigh out a small quantity and feed on time, but be sure to keep the quantity and leed on time, but be sure to keep the quantity of feed low. Prof. W. R. Graham, and F. N. Marcellus, B. S. A., who are working with the method are so far pleased with it and the appear-ance of the chicks justifies their faith in it.

FARM BULLETIN.

May Import from Britain.

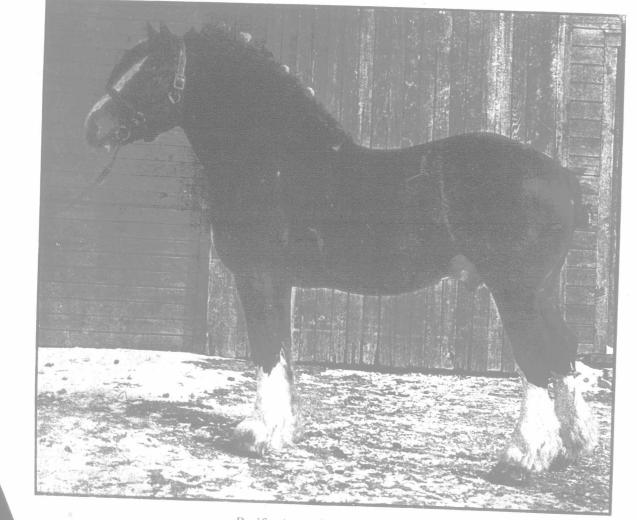
Dr. F. Torrance Veterinary Director General advises 'The Farmer's Advocate'' that the Department is now in a position to consider issuing permits for the importation of cattle, sheep, other ruminants and swine from any part of the United Kingdom. Applications for permits should be forwarded direct to the Veterinary Director General's Office, Ottawa.

To Kill Willow Sprouts.

Editor "The Farmer's Advocate":

In a recent issue of The Advocate I saw an enquiry for some way of killing sprouts on willow stumps. Bore a large augur hole into stump near the ground, fill nearly full of salt and drive a plug in tight. Lambton Co., Ont. J. T. SMITH.

T. Smith.



FOUNDED 1866

Lack of Team Work. BY PETER MCARTHUR.

The Patriotism and Thrift advertising at present running in the papers is being criticised freely by both the producers and recruiting officers. If there is one thing above another that the farmers of Canada might be expected to know it is that they are expected to produce more. Ever since the "Patriotism and Production" campaign of last year the subject has been discussed at home and abroad. It has been discussed at farmers' meetings and at recruiting meetings. Retired farmers have gossiped with their old friends about it at the blacksmith shops and post offices. It has been talked about at Farmer's Institutes and Women's Institutes. The papers have reported speeches about it and have had editorials dealing with it. Probably next to the war itself the matter of producing more has received fuller attention than any other question before the public. People engaged in productive work pointed to this demand on the part of the government as a full and sound reason for not enlisting and probably some people who had no right to do so used it as a defence. Recruiting officers working in the rural districts were forced to debate the point with most of the people they approached so that on the whole I feel justified in regarding the matter of greater production as being just about as thoroughly advertised as it possibly can be. If there is a man, woman or child in Canada who hasn't heard about it I should like to know where they are to be found. And it is a point on which people have already formed their opinions. They either regard Production as a sufficient expression of Patriotism or they resent all talk about it as being nothing more than a cover for reluctance to recruit. And now to have the government advertise it again merely arouses the old contentions with added bitterness.

The most distressing feature of the campaign is that it shows an insufficient co-operation between the different departments of the Government. The campaign last year was put through by the Department of Agriculture although every one who studied the matter realized that the real need was that of the Department of Finance. The production of the country must be kept up so that we will have goods to export. Only in this way can the credit of the country be maintained so that the war may be properly financed. If a farmer stopped producing and selling products from his farm his credit with the banks and the local merchants would soon disappear. Canada, taken as a whole, is simply a bigger farm and it must send products to the markets of the world if it is to maintain its credit among the nations. The fact that no one knows how much that credit will be needed makes the question of production of the first importance to the Department of Finance. It is noticeable that the present campaign is being put out with the authority of the Government, and especially with the authority of the Departments of Finance and Agriculture. One surely may be permitted to wonder why the Militia Department was not included. Its representatives, the recruiting officers, are freely quoted in the country as arguing it is men, not products that are needed. They urge that the men should go even if the country of the terms of terms the farms should be left idle. Have they any authority for making such statements? If they have the De-partment of Militia must be at variance with the other Departments. If they have not they should not be permitted to flatly contradict the statements made by the government advertisements.

The great trouble seems to be that no one in authority eems to realize what it means to try to raise an army of 500,000 men in a country the size of Canada without having a definite plan for recruiting. If the available men were registered and called upon to enlist in what-ever way would be most useful to the country a great deal of friction would be avoided. Officers in command of battalions have told me that in many cases they are not getting the right men. Productive workers who are urgently needed at home are enlisting while others who could much more readily be spared are hanging Although we may be proud of having the volback. untary system instead of conscription this system is being put to a test that it cannot stand. Countries under conscription will not suffer so severely in the loss of their best producers as will the countries under the voluntary system. And here is a point worth considering. Many thoughtful young men holding responsible positions have told me that they would not consider conscription a hardship. They argue that in a country where we are all equal before the law it is only just that we should all render equal service in this time of need. The taxes we pay to support the war are not left to voluntary contributions but an effort is made to make them rest as equally as possible on our shoulders. It might surprise the authorities to find that if the matter of defence were put on the same involuntary basis as taxation it would be accepted with as little protest.

Tor

APRIL 20

Receipts a Toronto, Mo cars, 2,605 ca calves, 57 ho and fully 10 to choice catt and a very f sold at abo lambs, calves tions given. The total r City and Uni week were:

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The combin markets for increase of 62 hogs, 679 calv sheep and 428 corresponding v Receipts of

liberal for the Easter market cattle of good at any time Prices paid we were several la a large numbe that figure; and small lot, and months-old ste The bulk of b sold from \$8 t best week for Stockers and

been an active One commission 18 carloads in out of the eigh United States, shipped to vari Feeders, 925 to \$7.50 to \$7.70;

lbs. each, at

rough stockers Milkers and been a steady springers, of whi supply, at abo Choice, fresh springers sold a medium to good mon cows sold a Veal Calves .--larger, but price choice quality an

report. Sheep and La sheep and lambs constitute a mai remained firm. ginning to arriv and are selling an

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Pacific (imp.) [131173] (13119) Clydesdale stallion, ioaied in 1904. Imported and owned by W. J. Mossip, St. Mary's. See advertisement.

Reports to Ottawa, Department of Trade and Commerce from nine provinces of Canada indicate a dull demand and declining prices for horses but in Alberta prospects look better for spring. Ontario farmers report buyers plentiful but sales few.

Hogs.-Receipt have been mode been higher than having been sol off cars.

Butchers' Cat steers at \$8.75 t cattle, \$8.50 to \$8 medium, \$7.60 to to \$7; choice c **good** cows, \$6.50 t \$5.75 to \$6; cor \$5.50; canners and choice bulls, \$7 \$6.50 to \$6.75; c bulls, \$5.25 to \$6 Stockers and ers, 900 to 950 1 good feeders, S()() \$7.35; stockers, 7() to \$7; yearlings \$6.25 to \$6.50. Milkers and S ers and springers cows at \$60 to \$ \$50 to \$65. Veal Calves \$10.25; good at \$

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THE FARMER'S ADVOCATE.

Toronto, Montreal, Buffalo and Other Leading Markets.

Toronto.

Receipts at Union Stock Yards, West Toronto, Monday, April 17, were 124 cars, 2,605 cattle, 519 hogs, 75 sheep, 66 calves, 57 horses. Cattle trade was slow and fully 10 cents per cwt. lower. Good to choice cattle sold from \$8.50 to \$8.85. and a very few at \$9. Cows and bulls sold at about steady prices. Sheep, lambs, calves and hogs all firm at quotations given. The total receipts of live stock at the

City and Union Stock Yards for the past week were

	City	Union	Tota
Cars	40	447	487
Cattle	572	5,274	5.846
Hogs	569	11,809	12,378
sheep	132	366	498
Calves	348	1,599	1,947
Iorses	137	763	900

The total receipts at the two markets for the corresponding week of 1915 were:

	City	Union	Total
Cars	34	391	425
Cattle			4,222
Hogs			11,229
Sneep			578
Horses	00		1,268
1101565	117	1,211	1,328
	Cars Cattle Hogs	Cars. 34 Cattle. 287 Hogs. 813 Sheep. 187 Calves. 88	Cars. 34 391 Cattle 287 3,935 Hogs. 813 10,416 Sheep. 187 391 Calves. 88 1,180

The combined receipts at the two markets for the past week show an increase of 62 cars, 1,624 cattle, 1,149 hogs, 679 calves, but a decrease of 80 sheep and 428 horses compared with the corresponding week of 1915.

Receipts of cattle were moderately liberal for the past week. It being the Easter market week, there were more cattle of good to choice quality than at any time since last Christmas. Prices paid were also better, as there were several loads which brought \$9, a large number of small lots brought that figure; and \$9.25 was paid for one small lot, and \$11 was paid for an 18months-old steer, weighing 1,860 lbs. The bulk of butchers' cattle however, sold from \$8 to \$8.50. It was the best week for cattle since Christmas. Stockers and Feeders. — There has been an active trade in these classes. One commission firm bought and shipped 18 carloads in a week's time. Four out of the eighteen loads went to the United States, while the balance was shipped to various points in Ontario. Feeders, 925 to 950 lbs. each, sold at \$7.50 to \$7.70; stockers, 700 to 800 lbs. each, at \$7 to \$7.35; common, rough stockers sold at \$6 to \$6.50. Milkers and Springers.—There has been a steady trade in milkers and

been a steady trade in milkers and springers, of which there has been a fair supply, at about the same values. Choice, fresh milkers and forward springers sold at \$80 to \$100 each; medium to good, \$60 to \$75; and com-mon cows sold at \$50 to \$75; and common cows sold at \$50 to \$65 each.

Veal Calves.—Calf receipts have been larger, but prices for all of good, and choice quality are steady with our last report.

Sheep and Lambs .- Scarcely enough sheep and lambs arrived each day to to \$3. constitute a market, and values have

and light at \$7.50 to \$8; heavy, fat calves at \$6 to \$7. Sheep and Lambs.—Light sheep, \$9 to \$6.50 beep and Lambs. A comparison of the sheep and the sheep a to \$9.50; heavy and common sheep, \$7 to \$8; lambs, \$11 to \$13; cull lambs, \$9 to \$10; spring lambs, \$6 to \$12 each. Hogs. — Selects, fed and watered, \$11.25; \$10.80 f.o.b., and \$11.65 to \$11.75, weighed off cars at the packing houses; 50c. per cwt. is being deducted for heavy, fat, and light hogs; \$2.50 off for sows, and \$4 for stags from prices paid for selects; half of one per cent. off all hogs, for inspection.

Breadstuffs.

Wheat.—Ontario, No. 2 winter, per car lot, \$1.02 to \$1.04; No. 1 commercial, 99c. to \$1.01; No. 2 commercial, 97c. to 99c.; No. 3 commercial, 94c. to 95c. according to freights outside; feed wheat, 86c. to 88c., according to sample. Manitoba wheat (new crop in store, Fort William), No. 1 northern, \$1.16³/₄; No. 2 northern, \$1.15; No. 3 northern, \$1.111/2

Oats .- Ontario, No. 3 white, 431/2c. to 45c., according to freights outside; commercial oats, 42½c. to 44c. Manitoba oats (in store Fort William), No. 2 C. W., 43c.; No. 3 C. W., 41¼c.; extra No. 1 feed, 41c.; No. 1 feed, 391/4c. Rye .- No 1 commercial, 89c. to 90c.

according to freights outside; rejected, 85c. to 87c., according to sample. Buckwheat.—Nominal, 69c. to 70c.,

according to freights outside. Barley.—Ontario, malting, 62c. to 63c., according to freights outside; feed barley, 59c. to 62c., according to freights outside.

American Corn.-No. 3 yellow, 841/4c., track, Toronto.

Canadian Corn.-Feed, 68c. to 70c.,

Canadian Corn.—reed, 03c. to 70c., track, Toronto. Peas.—No. 2, \$1.70; sample peas, ac-cording to sample, \$1.20 to \$1.50. Flour.—Ontario, winter, \$4.15 to \$4.25, track, Toronto, prompt shipment; \$4.25 to \$4.35 bulk seaboard, prompt ship-ment. Manitoba flour.—Prices at Torment. Manitoba flour-Prices at Toronto were: First patents, \$6.50; sec-ond patents, \$6, in jute; strong bakers', \$5.80, in jute; in cotton, 10c. more.

Hay and Millfeed.

Hay.—Baled, car lots, track, Toronto, No. 1, \$17 to \$18; No. 2, \$14 to \$15, per ton, track, Toronto.

Straw.—Baled, car lots, \$6.50 to \$7 track, Toronto.

Bran.—\$25 per ton, Montreal freight; shorts, \$26, Montreal freights; mid-dlings, \$27, Montreal freights; good feed flour, per bag, \$1.60 to \$1.70, Montreal freighte freights

Country Produce.

Butter .- Prices remained stationary on the wholesales during the past week. Creamery, fresh-made pound squares, 36c. to 37c.; creamery, cut, 33c. to 35c. creamery solids, 32c. to 33c.; separator dairy, 29c, to 31c.

Eggs.—New-laid eggs also remained stationary, and now sell at 24c. per dozen. Cheese.—18c. to 19½c.

Honey .- Extracted, 13c. to 131/2c. per pound; combs, per dozen sections, \$2.40 Beans.-Primes. \$4.

 $8\frac{1}{4}$ c. A few spring lambs are now coming on to the market, and they brought firm prices, from \$5 to \$12 each. Old sheep and yearling lambs are also very scarce, and were barely sufficient to meet the demand. As a consequence prices held firm, sheep bringing 7½ to 8c. per lb. and yearlings 11¾ to 12c. Calves are becoming fairly plentiful and trade was relatively active, prices ranging from \$4 to \$7 each excerding to aim and quility to \$7 each, according to size and quality. The tone of the market for hogs was also firm, and demand readily absorbed

everything offered, the price being 12c.

per lb. to fractionally less, for selects, weighed off cars. Horses.-Farmers have been fairly good buyers of horses lately, and carters have not been behind hand, the latter requiring a much better grade than the former. Heavy draft horses, weighing 1,500 to 1,700 lbs., have been reported sold at \$200 to \$250 each, while light draft horses, weighing 1,400 to 1,500 lbs., are quoted at \$150 to \$200 each. Small horses are \$100 to \$125 each, and culls \$50 to \$75. Occasional sales of fine saddle and carriage animals are made at \$200 to \$250 each.

Dressed Hogs .- Dressed hogs were in good demand and the supply was none too large. As a consequence, the market held firm at the recent advance, and sales took place at 16 to 16½c. per lb. for abattoir-dressed, fresh-killed stock.

Poultry.— Poultry has practically ceased to arrive, everything being now from cold store. Quotations ranged around 24 to 27c. for turkeys, 22 to 24c. for chickens, 17 to 19c. for geese and fowl, and 19 to 20c. for ducks.

Potatoes .-- Good stock is becoming somewhat difficult to obtain, but continued to sell at \$1.75 to \$1.80 per bag of 90 lbs. for best grades of all kinds, and at 10 to 15c. additional in a smaller way

Maple Syrup and Honey .- The make of maple syrup was said to be coming along nicely, but the market was very firm, being still quoted at 95c. per tin of 8 lbs., and at \$1.50 for 13 lb. tins, while sugar was 10 to 11c. per lb. Honey was steady, at 14¹/₂ to 15c. per lb. for white clover comb and 12c. for extracted brown clover comb being 12 to 13c. and brown extracted 10 to 11c.

Eggs .- The near approach of Easter exercised its effect on the egg market, but supplies came forward freely and, as a consequence, prices continued un-changed at 26 to 27c. per doz. It is not thought that these figures will advance. Butter.-The market for butter showed a slightly easier tone, owing to the advancing season and the larger offerings of new-milk butter. Finest creamery was quoted at 33 to $33\frac{1}{2}$ c., and fine at $32\frac{1}{2}$ to 33c., seconds being 311/2 to 32c. Cheese.-The market was unchanged

at $18\frac{1}{2}$ to $18\frac{3}{4}$ c. for finest cheese and 18 to 1814c. for fine, with winter makes at 17¹/₂ to 17³/₄c.

Buffalo.

Cattle .- Prices were on an unusually high plane at Buffalo last week and for the first time within the history of the trade in this country Canadian steers sold up to \$10 per cwt. There were around 160 loads offered on the opening day of the week, ten or a dozen loads being out of Canada. A bunch of good weight Canadian steers, the best finished ever offered on the local market, sold at ten cents per pound, with other sales of Canadian steers \$9.25 to \$9.35. All grades of Canadian cattle sold well and the general market was from 15 to 25 cents higher, for the week's opening but towards the closing day of the week values eased off somewhat. This week is Jewish holidays and the demand from this source will be materially lessened, especially on a plain, kosher kind of steers and heavy, gobby, fat cows. Sellers generally are expecting good weight steers, however, to find good sale right along. Receipts last week were 4,650 head, as against 4,125 for the previous week and as against 3,400 head for the corresponding week last year. Quotations

Shipping Steers.—Choice to prime natives, \$9.40 to \$10; Fair to good, \$8.75 to \$9.15; Plain, \$8.40 to \$8.60; Very coarse and common, \$8 to \$8.25; Best Canadians, \$8.75 to \$9.25; Fair to good, \$8.25 to \$8.50; Common and plain, \$7.75 to \$8.10.

Butchering Steers.—Choice heavy, \$8.75 to \$9; Fair to good, \$8 to \$8.50; Best handy, \$8.85 to \$9.25; Common to good \$8 to \$8.75; Light, thin, \$7.50 to \$7.85; Yearlings, prime, \$8.75 to \$9.35; Yearlings, common to good, \$8.25 to 8.65.

Cows and Heifers .- Prime weighty cows and Hellers.—Prime weighty heifers, \$7.50 to \$8.50; Best handy butcher heifers, \$7.75 to \$8.25; Common to good, \$6.50 to \$7.50; Best heavy fat cows, \$6.50 to \$7.50; good butchering cows \$6 to \$6.50; Medium to fair, \$5 to \$5.75; Cutters, \$4.25 to \$4.75; Canners. \$3.25 to \$4. Canners, \$3.25 to \$4. Milchers and Springers.—Good to best,

Milchers and Springers.—Good to best, in small lots, \$75 to \$90; Medium to fair, in small lots, \$45 to \$55. Stockers and Feeders.—Best feeders, \$7.25 to \$7.50; Common to good, \$6.50 to \$6.75; Best stockers, \$6.50 to \$6.75; Common to good, \$5.75 to \$6.25. Hogs.—The week started with best

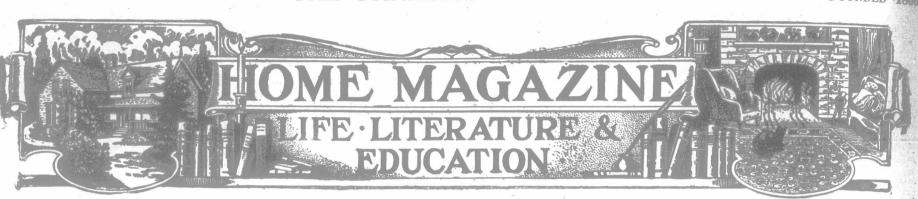
Hogs.—The week started with best grades selling from \$9.90 to \$10 and pigs mostly \$9, Tuesday top jumped to \$10.05, Wednesday's ranges on better-weight grades was from \$10 to \$10.10, weight grades was from \$10 to \$10.10, with pigs \$9 to \$9.25, Thursday's general market was \$10.25 and \$10.30 and Friday the bulk moved at \$10.30 and \$10.35, with some good weight hogs reaching up to \$10.50. Pigs \$9.00 to \$0.25 as to weight roughs \$0 to \$0.35 \$9.25, as to weight, roughs \$9. to \$9.35 and stags \$7.75 down. Receipts last week were 27,700 head, being against 23,-802 head for the week previous and 28,900 head for the same period a year ago.

Sheep and Lambs.—Buffalo made two new world's records last week, one being for wool lambs and one for wool yearlings. Bulk of the top wool lambs sold at \$12, but on Tuesday, which was the high

ers and springers at \$80 to \$100; good \$50 to \$65. Veal Calves - Choice at \$9.50 to \$10.25; good at \$8.50 to \$9; common
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THE FARMER'S ADVOCATE.

FOUNDED 1866



A Ballad of Trees and the Master.

712

BY SIDNEY LANIER.

Into the woods my Master went, Clean forspent, forspent Into the woods my Master came, Forspent with love and shame. But the olives they were not blind to Him,

The little gray leaves were kind to Him; The thorn-tree had a mind to Him When into the woods He came.

Out of the woods my Master went, And he was well content. Out of the woods my Master came, Content with death and shame. When Death and Shame would woo

Him last, From under the trees they drew Him

last: 'Twas on a tree they slew Him—last When out of the woods he came.

Easter Ways in Florence. BY MRS. J. COLBY.

A short distance from Florence. and numbered among her environs, lies the quaint walled town of Signa. Here one of the most picturesque of the

Florentine Easter spectacles which it was our privilege to witness, took place. It was called: "The Blessing of the Donkeys'

Very early in the morning, on Easter Monday, the peasants had flocked from the neighboring villages, to the Signa Piazza which presented an unusual appearance with its crowded booths where rosaries, sweet-meats, candles, and scapulars, vied with one another in harmonious rivalry. Inside the church, a gangway had

been laid up the centre aisle by means of benches placed sideways. Presently, in the distance, there arose a sound of kettle drums, mingled with the shrill voices of boy choristers chanting a

psalm. "Ecco! Eccola!" shouted the spectators.

A huge cross led the vanguard of the procession, flanked on each side by acolytes wearing surplices, and tippets edged with blue or crimson. A life-size crucifix followed under a canopy, with two priests in attendance, and lastly came the distinctive feature of the procession,-traditional to Signa.

Seated on the back of a donkey, on an erection of red velvet, rode a bambina (little girl) barely three years old. Her pale-blue satin gown flowed over the donkey's back in a long train; a huge ruff encased her baby face, Queen Elizabeth a fashion; on her shoulders were fastened two small wings; and on her crimped mass of golden hair rested a miniature crown. She also wore the family jewels of paste, which glittered in the sun, and made a brave showing. Slowly the procession moved through the church doors, the parents of the bambina holding her firmly upon her somewhat unsteady throne. Just as she entered she let loose a frightened sparrow which had been kept prisoner sparrow which had been kept prisoner in her little hand. The peasants shouled as the bird made frantic efforts to escape through the roof. Eventually it found the door and freedom. It is a time-honored custom in Signa for each bambina as it arrives with its attendant procession, (representative of its particu-lar village) to be led to the sheine of the Beata Giovanna, and there to offer gifts. The Blessed Giovanna lived in the 13th century, a peasant maiden in the 13th century,—a peasant maiden who had won a saintly reputation even before her death by reason of her good acts, and pious life. Her shrine, in the church at Signa, lay behind a side altar, and was profusely decorated with artificial flowers, tinsely ornaments, and

a blaze of candles, together with votive offerings of various sorts, but especially of waxen arms and legs, and little china figures. The walls were hung with surgical appliances, crutches, and symbols of illness, in thankful remem-brance of cases of healing ascribed to the miraculous intervention of the Saint. A bambina deposited her gift at the altar of the Beata Giovanna either in

person, or by proxy, according to what was possible in such a crush. And then the patient donkey retraced its steps up the aisle to the yellow sunlight of the piazza while a tow-headed acolyte proclaimed that Mass was about to begin. By the time that was over another company with a donkey and a pink or blue satin-gowned baby rider with crimped golden hair, miniature wand, and happy, excited face, was seeking admission at the church doors, as delegate from another outlying hamlet. "Who," naively inquired the local Florentine newspaper, "would not be a bambina at Signa, on Easter Monday?"

Vines and Flowers.

BY L. R. B.

Can we not do something to make our home more beautiful by planting vines and flowers? In May I planted morning glory and nasturtiums from seed, and ivy from slips. Poultry-net was provided for them to run over. They received no care whatever, and really make a fine show. I intend to have more vines than ever this year. The wild cucumber is good, but needs something planted close beside to cover its lower part. Sweet peas are splendid for that, or nasturtiums will do.

Now I want to tell you something, if you are a lover of dahlias and have never had them or many of them on account of the cost. Do as I did last year; buy a package of seed. I actually raised them four feet high and three

feet across from seed planted in June. They were planted in good, rich earth, and hoed persistently but not deep. I made the mistake of setting the plants too close together last summer. Put them five feet apart. I have a new way of training sweet

peas. I plant the peas in a circle, have one two feet across, one three and one Will use poultry-net five feet high joined in a circle to fit the beds, and plant low flowers around outside. Will use some stout stakes inside of wire to hold it solid.

I intend to use a lot of sunflowers as screens to hide fences from view, etc. Have also bought seed to start a bed of Oriental poppies and perennial phlox, which J believe will well repay for the labor. I have a lovely row of hollyhocks which are really no work at all, as they grow like weeds and are very hardy. Did you ever grow carnations from seed? I have had a lovely bed the last two years.

In gardening there is much to learn, and there, as in other places, expereince is the best teacher. I can scarcely close without mentioning pansies; they are about the first to greet us in the spring. Give them rather a shady, moist situation.

Sweet Peas for Show.

BY W. T.

Referring to his personal observations, and comparing sweet pea culture in Canada with what is seen in England, D. W. Roberts, of New Brunswick, is inclined to think that as a general rule they are not grown here in a manner to obtain the best results. Last year he had 63 varieties growing at Fredericton, and one of the judges at the Pro-vincial Exhibition said he had never seen such flowers before, referring par-ticularly to their size and length of stem. Just how they were grown will be of

readers, and in response to enquiry Mr. Davis kindly gives the result of the year's experience with some modifications, which are embodied for this season's practice. The plants were not grown in a green-house or hot-bed. though a few were started in a cold-frame, but got scorched through the sash being left on one day under a hot sun. Those shown at the exhibition were all planted out of doors in the beginning of May, but owing to wet and cold no growth was made until June. For early bloom the best way would be to plant in little seed raisers (pots or boxes) one plant left in each. Start early and put in cold frame, taking care to remove the sashes in the day time when the plants are visible, and plant out in the open when weather is favorable. There should be in preparation generous, deep applications of well-rotted stable manure, with the addition of lime and some wood ashes. The seed itself, Mr. Davis says, should be put in only one instruction of the seed of the second secon inch deep. A trench or drill is made about three inches deep, ridging the soil along each side. As the plants grow the earth is pulled in towards them until level again on both sides. The trench was three feet wide, and a double row of peas grown about a foot apart through centre. The seed was sown, some nine and some twelve "The inches apart. Ida Bennet's work, Flower Garden," advises the double row running north and south with large meshed wire netting 5 or 6 feet nigh between, supported by strong posts at the ends, and she advises deeper covering of the seed—2 or 3 inches of rich mailers and a strong st inches of rich, mellow soil. If more seeds are sown per foot in case some might not germinate, the weaker ones

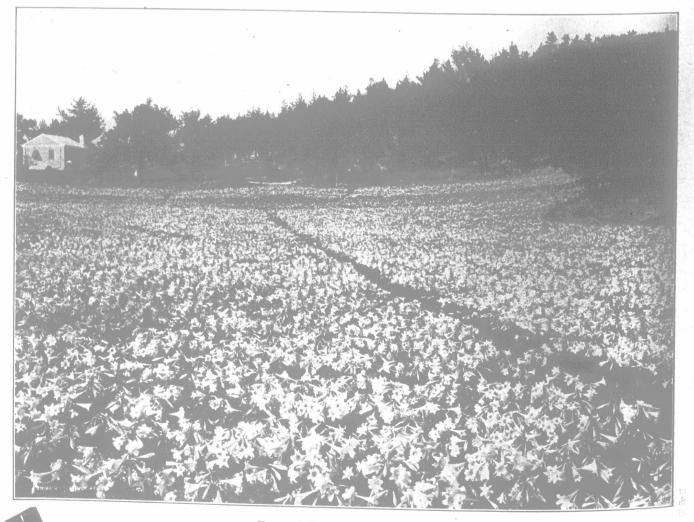
can be thinned out leaving, as Mr.

Roberts suggests, one strong plant to the foot. The time of planting must

be regulated by the season. In warm,

the foot.

suggestive interest to Farmers' Advocate



APRIL 20.

dry weather

not be wate into a little rows of plan roots. The stirred. A c each season, prepared ear ing. The so too rich, how tendency to Mr. Roberts 20 to 24 in leaves and b tied on tall, off the later carefully every work and tim give, but it is flowers. As a required, but varieties of are the bette couple of hour

Earth

It is a holy was born in the demons o their nether ca were shut, fo through to fig angels flocked with songs of willing men, y spheres that h rang like cym heaven had co on earth with virgin mother to Nazareth a cross; and crue len crew reco mounted their temples.

Jesus rose fr was slow to 1 One said, "The other replied, has appeared in knew it not, his gates. So t on and the sa stand thick as about the thron hope still linger waits for the some down aga rest with men. Sight is blir hope shines inw visible to more

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the roar of bat joy. Never till now have such thic fore. It must years of wrong and the bottom closed and lock heaven Truth an to dwell with me with the nation upon it shall be the world in or mortars and se and super-dread the scrap-heap of with despotisms a imbo at the ba The Independent

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It is hard to

war time, so r be neeeded for d

two yards of m this season some five yards around

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out in a flare be line, tight sleeves with a pyramid o middle of the crow

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taffeta silk. For dresses that seen to a complete crepe de chine, flowered muslins choice. With the guimpes of ninor

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Easter Lily Farm, Bermuda.

Photo Underwood & Underwood.

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THE FARMER'S ADVOCATE.

dry weather the vines themselves should not be watered, but the water poured not be watered, but the water pointed into a little trench between the two rows of plants, letting it soak to the roots. The soil should be kept well stirred. A change of soil is advisable each season, and the trench should be prepared early, in readiness for plant-ing. The soil should not be made too rich, however, or there will be a tendency to excessive foliage and vine. Mr. Roberts had flower stems last year 20 to 24 inches long, with immense leaves and bloom. He grew the vines tied on tall, single poles, and trimmed the laterals, removing the bloom carefully every day. This involves more work and time than most people could give, but it is the way to get exhibition flowers. As a rule little or no shade is required, but some of the Eckford varieties of peculiarly delicate tints are the better of a little shade for a couple of hours at mid-day.

Earth's Easter Faith.

It is a holy legend that when Jesus was born in Bethlehem of Judea all the demons of war fled in affright to their nether caves. The gates of Janus were shut, for no squadrons passed through to fight the world over. The angels flocked down and filled the plain with songs of glad peace among goodwilling men, while the very crystalline spheres that bear the stars of heaven rang like cymbals in silver chime, for heaven had come down to dwell forever on earth with men. But Jesus and the virgin mother fled to Egypt and then to Nazareth and thence to Calvary's cross; and cruel Moloch with all his sullen crew recovered courage and re-mounted their old thrones in their old temples.

Jesus rose from the grave, but earth was slow to know her Easter morn. One said, "The Lord is risen," and an-other replied, "He is risen indeed and has appeared unto Simon," but Rome trew it not and Lank concerded wide knew it not, and Janus opened wide his gates. So the centuries have moved on and the sanctities of heaven still stand thick as stars in their station about the throne of God, for the Easter hope still lingers while the weary earth waits for the time when heaven shall some down again to take its promised rest with men.

Sight is blind, but faith's celestial hope shines inward and sees things invisible to mortal sight; she sees beyond and through the cannon smoke the gleam of the New Jerusalem, and above the roar of battle she hears the Easter

Never till now out of the gates of war have such thickset legions hasted be-fore. It must be that two thousand years of wrong are close to their end, and the bottomless pit of war will be closed and locked fast, while out of heaven Truth and Justice shall descend to dwell with men, and a scrap of paper with the nations' promises engrossed upon it shall be strong enough to bind the world in one, while bayonets and mortars and sea-planes and Zeppelins and super-dreadnoughts are flung into the scrap-heap of ancient history or fly with despotisms and other follies into the imbo at the back side of the world.-The Independent.

are liked. Sleeves have changed but little, although there is a hint of a return to the popular kimono type. Upon the whole the fashions tend

very much to the quaint and picturesque, but no matter how much a gown may look as if it had materialized from an old picture, the collar is likely to be modern---very modern.

For this season the favorite colors are midnight and navy blue, khaki, plum color, slate color, and all the tones of gray.



8984

8824 (With Basting Line and Added Seam Allowance) Gathered Blouse with Shoulder Pieces, 34 to 42 bust. 8984 (With Basting Line and Added Seam Allowance) Flounced Skirt, 24 to 32 waist.





8983 (With Basting Line and Added Seam Allowance) Plain Blouse with Over Portion for Misses and Small Women, 16 and 18 years. 8981 (With Basting Line and Added

Seam Allowance) Flounced Skirt for Misses and Small Women. 16 and 18 years.

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 ap-peared. Price ten cents PER PAT-TERN. If two numbers appear for the one suit, one for coat, the other for skirt, twenty cents must be sent. Address Fashion Department, "The 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.

When ordering, please use this form :---

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Post Of	fice						
Country							
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ly extinguished. The Sabbath rest which followed was like the repose of death.

Early on Sunday morning she hurried with the other sorrowing women, to anoint with sweet spices the dead body of their Lord. They sought the Living One in a tomb, and found Him not Mary Magdalene set off in desperate haste to tell the startling tidings which seemed to her so terrible. Then she returned, weeping so violently that ever the vision of angels,—which she sav sitting where her Lord's body had laincould not distract her from her grie. Then she heard a voice behind her saying gently: "Woman, why weepest thou Whom seekest thou?" and—with fact still turned towards the empty tomb she pleaded to be given the body of he Friend. She did not even mention His name—there was only one "Him" in her thoughts. "Sir, if thou have borne Him hence, tell me where thou hast laid Him, and I will take Him away!"

It was such a small thing she askedonly a lifeless body-and her overwhelm ing sorrow blinded her eyes to the marvelous joy even then being offered Jesus saith unto her, "Mary". She knew His voice then, and turned away from the empty tomb to the Living JESUS, crying out in her joy: "My Master!"

The story has been often repeated since that day. We turn our back on Christ, setting our hearts on obtaining some small thing which can never satisfy the infinite craving of our souls. Over our shoulder we fling the request for some earthly gain or ambition, keeping our faces turned towards it and prepared to take it away—away from God—if only our trifling petition be granted. And, all the time, God is trying to attract our attention, so that we may turn to "Him and see the Vision of His Face in the Face of Jesus Christ.

Christ. A few days ago I was giving a Bible talk to some young women, and one sad-faced girl said to me: "I used to be a Christian." "Were you happy, then?" I asked and she drearily answered, "Yes." "Are you happy, now?" I went on; and did not need her sad "No!" to assure me she was most unhappy. Unhappy! with happiness trying to win entrance to her heart. "Used to be a Christian!" Why, it is like a person —with eyes tightly shut—saying, "I used to be able to see." She knew the value of the treasure she had lost. Why did she not turn herself

had lost. Why did she not turn herself —like Mary— and say in whole-hearted joy, "My Master!" I think she will do so soon, she is so miserable having lost Him.

The first wonderful Easter greeting was given to a woman. Why? Perhape it was because she needed our Lord most, and need is a mighty prayer in His ears. It was an intensely personal greeting— for herself alone. "Mary!"—a message of joy and new life thrilled through that

or joy and not one word. Try to imagine any message, long or short, which would be better than that one word for that sorrowing woman. Man spake like this Man, and -after nearly two thousand years-we must acknowledge that His Easter greeting to Mary Magdalene was perfect. e cannot conceive a better or There were many greetings given that day, each one suited to the hearer. There was the "All hail!" to the women who were running with glad tidings which they had heard from an angel. It was a friendly word, like our "Good morning!" binding their fellowship with each other in holier bonds, and assuring them the was not an apparition but the them He was not an apparition but the same JESUS as before His death. He is not a Friend for Sundays only, but for all the weekdays, too. This afternoon I heard a clergyman say that a woman once told him she had never heard a "kitchen" mentioned in a sermon -she thought religion was for church and Sundays. Our Lord is the same to-day as yesterday. Do you think He kept aloof from the other workmen when He was a carpenter? Did He consider Himself above them, and try to associate only with a sclect few? Then there were other greetings-the inspiring conversation with the two men who were walking along the dusty country road, the twice-repeated "Peace be unto you," which cheered the fearful disciples; the secret meeting with the penitent Apostle-which we can imagine for ourselves. Have we not often been

Fashions Dept.

Fashion Notes.

It is hard to understand why, in war time, so much material should be neeeded for dresses. Two years ago two yards of material made a skirt; two yards of material made a skirt; this season some of the skirts measure five yards around the hem. In short, you are quite in fashion if you have a very full skirt, a tight jacket rippling out in a flare below the belt or waist line tight closure and a very small bat line, tight sleeves, and a very small hat with a pyramid of trimming in the very middle of the crown. Later in the season very broad, flat hats will be worn, and the skirts may be made up of two or three deep frills.

Favorite materials for suits are serge, gabardine, mixed homespun, faille, and taffeta silk. For the pretty one-piece dresses that seem to be so necessary to a complete wardrobe nowadays, crepe de chine, charmeuse, linen and flowered muslins are Dame Fashion's choice. With the silk gowns, sleeves and guimpes of ninon or Georgette crepe

8987 (With Basting Line and Added Seam Allowance) One-Piece Dress for Misses and Small Women, 16 and 18 years.

peared...

Owing to the fact that custom duties on fashion cuts have been increased we are obliged to raise the price of patterns to 15 cents per number.

Hope's Quiet Hour.

His Easter Greeting. Jesus saith unto her, Mary.-St. John XX:16.

"There's a light upon the mountains and the day is at the spring, When our eyes shall see the beauty and the glory of the King: Weary was our heart with waiting, and

the night-watch seemed so long, But His triumph-day is breaking and we hail it with a song."

Mary Magdalene had stood with breaking heart beside the Cross, and had seen the Light of the world apparent-

THE FARMER'S ADVOCATE.

disloyal to our Lord and turned to Him, sorrowing, for forgiveness? When His kind words are for ourselves alone we keep them secret—as St. Peter did. I think there must have been another wonderful greeting on that great day of joy, for Mary's Son knew how her of joy, for Mary's Son knew how her heart was pierced on Good Fiiday, and He would delight in turning her sorrow into joy. That meeting is too sacred for strangers to intrude upon. When a mother, having mourned her son as dead, finds he is alive and near at hand she wonto him all to harref for hand, she wants him all to herself for a little while. What do they say to each other? Perhaps they don't say anything. Often words seem to hinder fellowship, for "the things best worth saying can't be said."

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Do you think the Easter greeting of the Living Lord meant more to the women than to the men? Do you think that Christianity is more for women than for men?

You would be horrified if your mother or sister had no faith in Christ, if your your son wished to marry a woman who never went to church. What of the men! Don't they need the Living Master as much as the women?

To-day I saw a big notice board anaouncing a Men's Meeting at the Y. M. C. A.—subject: "The Consciousness of the Presence of Christ." To be conscious of the Presence of Christ in pur midst is to be filled with hope and courage. If He is with us no foe can really harm us. Death is simply the lifting of the veil which hides His face. Pain and sorrow may lift us to a crossbut His Cross is very near. A brilliant French journalist—

professed atheist-watched the soldiers as they went bravely out to face death. and the war opened his eyes to the Reality of God. He wrote: "I have deceived myself and you who have read my books and sung my songs. I was mad. It has all been an awful dream! O France, France! Return to your faith and to your best days. Oh! my soul, rejoice that thou art permitted to see the hour in which, kneeling, mitted to see the nour in which, kneeding, thou hast learnt to say, 'I believe, I believe in God.'" He found joy in believing—did you ever hear of anyone inding "joy" in atheism? "Death" is a common word in these

lays. We stand, like Mary, with sad faces turned towards the sepulchre of young men. Why do we seek for the living among the dead? They are not lead, but rejoicing in new and wonderful life—those brave young men who have so willingly laid down their lives in defence of their country. "O change! stupendous change! There lies the soulless clod. The light eternal breaks, The new immortal wakes, Wakes with his God!"

Think of the young Canadian who said to the eight men under him: He did not come in, and his body was found with a bullet through the brain. "Dead!" do you say? Why he made one quick step over the threshold, from eager life here to fuller life beyond. St. Augustine declared that there was no such thing as death, because we are either on this side of death or on the other side.

If one very dear to you has been called away turn your thoughts from the grave, which does not and cannot hold Turn to Him Who is 'The Life" and-when He claims your ittention by speaking your name-inswer in whole-hearted loyalty, "'My Master!"

Hour-I often say the Quiet Hour is worth all we pay for the Advocate. READER.

Thank you-my unknown friendfor your encouraging words; and for putting into my hands "for the needy" a larger sum than the Advocate costs thus proving that you mean what you say.

HOPE.

The Ingle Nook.

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

Women After the War.

The other day in a restaurant I noticed a strong, able-bodied man whose only work seemed to be to take money at a desk and put records into a victrola.

ed. When the war is over, at least for the first ten or twenty years, there will be a vast preponderance of women in the civilized world. Add to these the great numbers of crippled and disabled soldiers who will come back from the war able to do only the lighter forms of work, and it seems evident that every fit man, who is a real man, will choose, himself, to do the work for which his strength fits him, leaving the lighter positions open for those less strong physically, than he. This does not less strong physically, than he. This does not mean at all that every strong man shall elect to do work that calls for a large admixture of manual labor in it. There is a strenuous brain-work which makes as strong demands on physical strength as any manual labor could do. Such must always call, and rightly so, to those whether men or women, who are divinely fitted for it. Manual or mental,—it does not matter a whit which. Both are necessary, yes, imperative.

To come down to the concrete, then: During the time which must elapse before the balance in the population of the civilized world adjusts itself,



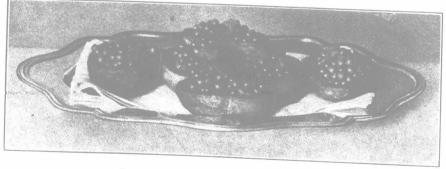
Stewed Figs, with Charlotte Russe Cream.

Possibly he was beyond "military age, the fact remained that he was a big, physically capable man, doing work that any frail girl of sixteen could have done. In the face of these urgent times when there is an unceasing call for men, to go to the front, to make munitions, to raise crops, to do definitely productive work of all sorts so that the credit of the nation may be kept up and supplies under way, it was very hard to exalt him into a hero. Of course one cannot be too sweeping without knowing all of the circumstances.

Watching him, however, as he walked with firm tread, ever and anon, to re-place "Largo" with "We'll Never Let the Old Flag Fall," or vice versa, I recalled a controversy that occurred a few years ago between a friend and her

the able-bodied men will likely elect to do all the heavier tasks and will choose according to their gifts,-to be farmers, to do the strenuous work in mills and factories, to be builders, to drift into all positions which call for heavy lifting and carrying, to engage in the not less exhaustive mental labors of all kinds that call for peculiarly masculine attributes. There will be ample opportunity for the really efficient in law in medicine, in preaching, in authorship, in scientific research; and more than ever before will there be a tendency for the half-men in these things to step down and out, and try something that is better suited to their powers. will they be any the less happy for their choice

To the women, then, and to the crippled



FOUNDED 1866

Could this be accomplished the whole solution of contentedness in the world must be pushed forward at one vast bound. Why can't we be sensible about such things? * * * *

Really I can't close without calling your attention to something that made me laugh out just now, here all alone in my den. I very seldom read over anything I have written after it comes out in print, but, somehow, I opened April 6th issue at page 620. The first thing my eyes saw was this: "You straighten The first thing my eyes saw was this: You straighten-ed up and stood, hands crossed, on the hoe handle," Oh that comma after "crossed,"—I swear I did not write that in my copy! The printer must have been working off an unconscious joke on me.-What a difference in meaning a thing so tiny as a comma can make!—Needless to say, dear friend, I do hope you haven't been standing on the end of the hoe-handle,—"hands crossed" too, quite piously. Now do you understand why I "snickered out" here all by myself?

UNIA.

"Divine Discontent."

Several letters on this topic arrived, but the writers misunderstood entirely the meaning of the quotation, attempting to take a religious signification from the words. "Divine discontent" is a well-known quotation meaning simply that through discontent we often are impelled to make an effort to improve. Absolute contentment, on the other hand, sometimes leads people to rest on their oars, and so degenerate, It is only by effort that we grow in anyway.

Kohl Rabi, Apple Butter, Etc.

Dear Junia,—I am ever an interested reader of your Ingle Nook and get many helpful suggestions from the same. would like to see some benedict's an-swers to "A Cavan Blazer."

Could you tell me how to cook Rabi? Kohl Rabi? 2. Give a recipe for making Apple

Butter. 3. Is Spinach used for 'greens' or is it something like cabbage or cauli flower?

4. Last year I tried almost every seed store in our town for "Swiss Chard" but could not get it. They had never heard of it seemingly. I think it was in your paper that I read about it and that it was used for 'greens'. Could you tell me where I might obtain the seed or is that against your rules?

By the way I use the young 'silver weeds' for 'greens' and they're lovely. think most people call it 'Pig weeds' Anyway the underside of the leaf sparkles like silver dust might. I'm generally lucky enough to keep my garden so well hoed that I get very few of those greens' and so would like the Swiss Chard. Thanking you in advance and wishing you continued success I will close

Halton Co., Ont.

Kohl Rabi is a sort of mixture of turnip and cabbage. It may be boiled and served with butter, pepper and salt, or with a cream sauce.

MARION.

To make Apple Butter, peel and core the apples and put them through a sausage grinder or food-chopper. To 9 pints of the apple add 4 pints sugar and 1 quart of good cider vinegar. Cook APRIL 20

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Dear Jur

is near agai may this b [had not i now but in letters and again if an your name what the wir friend. But hold the pe kind writers tried to kee sunshine sor us it is sha perhaps we share of the l is beautiful surely speak

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Rossiter W. Raymond writes:

Beside the dead I knelt for prayer, And felt a presence, as I prayed: Lo! it was Jesus standing there. He smiled, "Be not alraid!"

Lord, Thou hast conquered death, we know Restore again to life, "I said,---

This one who died an hour ago. He smiled,—"He is not dead."

'Yet our beloved seem so far, The while we yearn to feel them near, Albeit with Thee we trust they are He smiled,-"And I am here. DORA FARNCOMB.

For the Needy.

A small donation (\$2.00) from a reader of the Advocate who enjoys the Quiet

Potato Patties, with Canned Peas.

brother, a lad then approaching the time when it was necessary to make a de-cision in regard to what he should do in life. He wanted to be a jeweller, she wanted him to work in his father's shops. "You don't want to take a sissy job," she argued. "You are a big strong man, and you ought to take a man's work. You rebelled at anything man's work. You reperied at anything that meant heavy brain-work, so you should choose manly, physical work. The jewelry business calls for neither, Any girl or any delicate man could do it. She won out. She had thrown him, as it were, on his honor,

think she was right, and I think that one effect of the war will be to establish the point of view for which she contend-

and weakened soldiers who have so splendidly done already the manhood's stint of their prime, will be left the things that they can do, - the various kinds of clerical work in offices and banks, the lighter tasks in stores and factories, the garden work, and poultry keeping, and all the other things possible to women and broken-down men. For the men of strength will scorn to take the lighter task while there is "Men's Work" to

Perhaps, after the war, there will be a samer idea of work. Perhaps there will cease to be greater honor placed upon one kind of work than upon an-other terance all honor will be placed other, because all honor will be placed upon doing what one is best fitted for.

until thick. Flavor with cinnamon and other spices, if liked.

Another Method:-Slice the apples and put in a kettle, with alternate layers of apples and sugar, using 4 lbs. sugar to 25 lbs. apples. Cover tightly and let stand over night. Cook very gently, covered, for 5 hours, then add spices to taste.

Spinach is used for "greens". The "lamb's quarters" of the fields and gardens is wild spinach, and is quite as good in flavor. I wonder if they are the "silver weed" you mention. They are somewhat silvery on the under side of the leaves. Any seed-company that advertises in our paper can send you Swise Chard sed. The developed leaves of Swiss Chard are cooked like spinach; the stalks or midribs of the leaves may also be cooked separately and served with butter, pepper and salt, or with

Dyeing an Ostrich Feather. Would advise Mrs. P. M. to send her white ostrich feather to a professional

D 1866

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dyer to have it colored. Feathers usually shrink a little in the process but the color is likely to be all right. Thanks, Mrs. P. M. for your kind words in regard to our paper.

An Easter Greeting.

Dear Junia and all-As Easter time is near again with the flowers and birds, may this be a glad Easter time to all. I had not intended writing to the Nook now but in reading again the kind letters and cards I will just say once again if any of you write please sign your name in full. Who knows but what the writer might be an old girlhood friend. But dears, the Lass could not hold the pen to even send cards and how I did wish to return thanks to kind writers. I have been lonely but tried to keep in mind there is always tried to keep in mind there is always sunshine somewhere, though for some of us it is shade. If we do not worry perhaps we shall get more than our share of the bright sunshine. My window is beautiful now with flowers. God surely speaks to us through the flowers, cheering us along. Thanking each one who remembered me so kindly, your shut in friend.

LANKSHIRE LASS.

Worms in the Fern Pot.

Will you please publish in your valuable paper what will kill flies on my house plants. There is a large number of small flies about them and small white worms in the earth. The leaves are yellow and dropping off. Oue.

The worms in the soil are the larvae which eventually develop into flies. To be sure of eradicating them repot the fern, washing the roots well, and repotting in soil baked in the oven to kill all insect life. These flies, evidently are different from either thrips or aphids which may be banished from house plants by spraying them with sulphotobacco solution sold for the purpose. Earthworms in the soil may be driven out by soaking it with lime-water.

Fighting Moths.

In reply to a reader who wants to know how to "fight moths":

With the warm weather the necessity for fighting moths arrives in a great many homes,-not all, for it is an odd fact that many homes never are troubled with them at all.

(1) the tiny "clothes moths," small, narrow, yellowish gray insects that fly about very rapidly in houses early in the evening and seem to elude every effort to "smash" them. (2) the so-called "buffalo-moth," which is not a moth at all, but a beetle, broadly oval, with stiff wing-covers marked with blotches of brick-red and white. The larva which does the damage, is woolly, hence the name "buffalo."

In either case the larvae work all the mischief. The moth or beetle lays the eggs, the eggs hatch into little worms (larvae) that eat holes in furs, woollens or carpets, and finally stiffen into pupae enclosed in pupa-cases in which the metamorphosis into the complete insect takes place. When at last the insect breaks through and flies away it leaves the discarded pupa-case behind.

THE FARMER'S ADVOCATE.

Little Girl's Party.

H. H., Brant Co., Ont., wishes sug-gestions for a little girl's birthday party Now here's a recommendation: Peter McArthur's little daughter gave a party McArthur's little daughter gave a party not long ago, to which all the little guests, at her request, came dressed in character, to represent anything they chose. A good supper, games suggested by the children themselves, and a "concert" trumped up on the spur of the moment, kept the fun going spur of the moment, kept the fun going spur of the moment, kept the fun going until it was time to go home. Perhaps the little lady will scold "Auntie Junia" for telling all this, but I don't think anything could be better. It's much better to throw children on their own resources, just making a suggestion occasionally, than to nail them down to a cut-and-dried programme; it's better for the children, teaching them to be inventive and recourseful returns to be inventive and resourceful rather than mere imitators.

than mere imitators. As for decorations?—Surely, H. H., you are original enough to think out something for yourself. Use your "brains," dear.—Just one hint will I give you: my sister once had for a centerpiece a big black bottle dressed to represent "Aunt Dinah." When supper-time came she said that "Aunt Dinah" would like to see all the "folks" in the dining-room. I should think the children would love this.—Of course you'll have a birthday cake with candles around it, won't you?

Cleaning Gloves.

Mrs. B., Welland Co., Ont., wants to know if there is anything besides gasoline that will clean undressed kid gloves There are many glove-cleaners sold by druggists, some of which may be made especially for suede gloves. Scientific American gives the following method: Take out the grease spots by rubbing with magnesia or cream of tartar. Then wash with warm suds made with Castile soap, and rinse first in warm water then in cold. Finally stretch and pull into shape and lay in the sun or before the fire, rubbing and pulling them often to make them soft. All gloves are better and more shapely if dried on wooden hands made for the purpose. When washing chamois gloves add soda to the washing water and soap to the rinsing water. If rinsed in clear water they will be hard. Al-ways use soft water for rinsing.

Seasonable Cookery.

Eggs and Onions:-Cook 4 small onions in boiling water until tender, adding salt when about half cooked. Cut the onions into quarters. Boil eggs hard and cut in slices or quarters. Prepare 11/2 cups cream sauce, using 3 level tablespoons each of butter and flour, with seasoning of salt and paprika or white pepper, and $1\frac{1}{2}$ cups thin cream. When the sauce is cooked put the eggs, onions and sauce in layers in a serving dish and let get very hot in the oven. Serve for supper. Eggs in Potato Nests:—To boiled potato add salt, a little hot milk and

butter, and beat until very light and fluffy. Form the potato into "nests on a buttered baking pan,-it is a good plan to arrange them on rounds of waxed paper so they will be easily handled. Sprinkle the inside of the nests with finely chopped ham, then break an egg into each. Beat the yolk of an egg with a tablespoonful of milk, and brush the edges of the potato with it. Set in the oven to bake until the edges of the potato are slightly browned. Peach Tarts:—Bake tart shells. Set a half-peach, (canned) in each, pour in a little syrup and cover with a meringue made of beaten egg-whites to which has been added a little sugar. Brush the edges of the tarts with white of egg and sprinkle with chopped almonds. Set in a slow oven to set the meringue. Before serving put a dot of currant jelly on top of each. Hot Cross Buns:-Soften 1 cake compressed yeast in 1/2 cup lukewarm water, mix smooth, and stir into 2 cups scalded and cooled milk (to lukewarm) scaled and cooled milk (to lukewarm), then add 3 cups of sifted flour and beat until smooth. Cover and let stand to become very light. Add about ½ cup sugar, 1 teaspoon salt, 3 yolks of eggs, and ½ cup melted butter; mix well, then stir in flour to make a soft dough, but one that can be kneaded. Knead until smooth and elastic, cover and let stand until doubled in bulk; turn carefully upside down on a board



The delightful crispness of McCormick's Jersey Cream Sodas is an indication of right packing. A special cooling process after baking makes them crisp, and our special method of packing in tightly sealed boxes, lined with waxed paper, keeps them so.

Delicate, tasty, digestible

and highly nutritious, McCormick's Jersey Cream Sodas contain all the elements of a pure, wholesome food at an economical price. The new model milliondollar snow-white bakery in which they are made, testifies to a purity and cleanliness which is absolutely unique in modern biscuit making. **58A**

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It is made of kiln-dried, bevel-edged laths imbedded in a heavy sheet of Asphalt-Mastic, surfaced on the other side with tough sulphite fibre board. The Asphalt-Mastic makes an absolutely wind and damp-proof sheathing, while the bevel-edged laths provide most effective dovetailed "keys" for stucco or plaster.

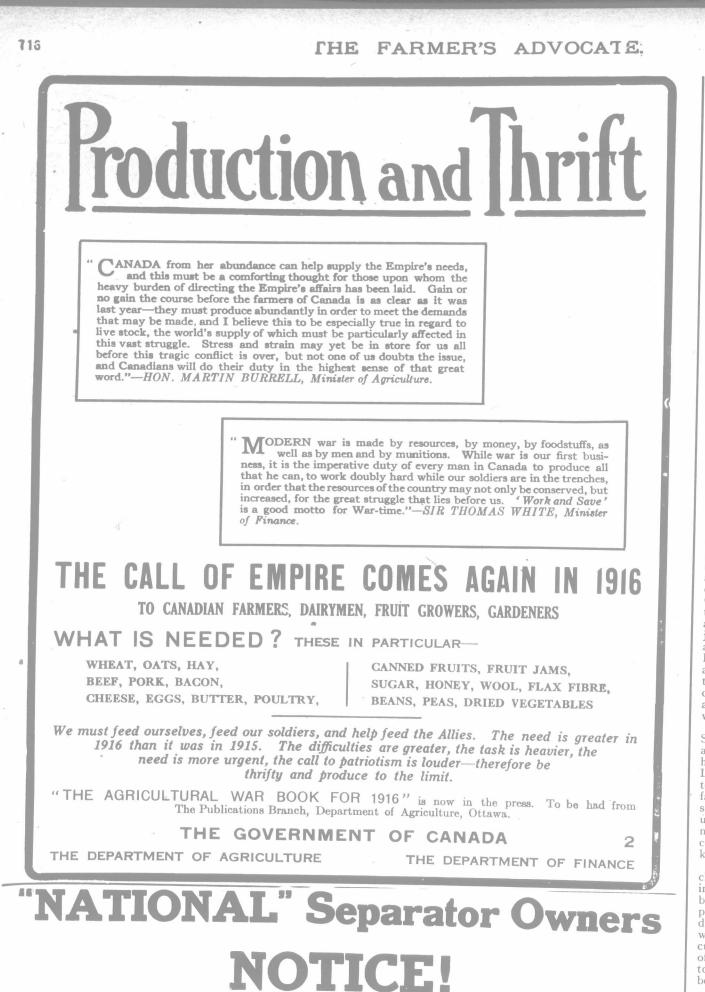
One look at Bishopric Stucco Board will show you its practical value Write for sample and full information about Bishopric Products and Permatite Roofing to

To protect furs and woollens from the othes' moth, beat them well in the sun and leave in the bright sunshine for a while then put them away in paper or cotton bags tied up so tightly that the insects cannot get in to lay their eggs. Woollens may often be kept quite safe in trunks if plenty of naphthaline crystals are scattered a mong them. Cedar chests are supposed to need no crystals. When buffalo bugs appear in car-

pets take up the carpets and beat them in the sunshine. Before putting them back have the floors thoroughly cleaned. Gasoline will kill moths and larvae, but I always hate to recommend it for fear someone will be careless. Positively it must not be used except in a room which has doors and windows open and neither lights nor fires near. It is dangerous even to let a man come in smoking while the fumes are in the air, as an explosion may be caused. However, procautions are taken, the gasoline evaporates very quickly and there is no further danger. It may be necessary to repeat in a week.

If a vacuum cleaner is used often there will be little trouble with either moths or beetles.





A S SUCCESSORS of the Raymond Manufacturing Company, Limited, of Guelph, Ont., it is absolutely necessary for us to revise the list of names and addresses of all owners of "National" Separators. This will enable us to give prompt service and attention in supplying parts for the "National" Separator—a machine that in the last twenty years has given remarkable satisfaction. We are anxious that the change of ownership should ensure full protection of the interest of every Owner of a "NATIONAL" SEPARATOR. FOUNDED 1866

roll into a sheet and cut into rounds Let rise. Bake about half an hour. When baked brush over the surface with white of egg and return to the oven to dry. Finally make a cross of boiled frosting on top of each bun. Boiled Custard with Snow Eggs:-To make the custard scald 1 pint mill in a double boiler. Beat the volks of a

To make the custard with Snow Eggs: To make the custard scald 1 pint mile in a double boiler. Beat the yolks of 4 eggs; add ½ cup sugar and ½ teaspoon salt and beat again. Mix the yolks smooth with a little of the hot milk, then return to the rest of the milk; and stir until the mixture thickens enough to coat the spoon. When cooked enough the foam on the top of the mixture will largely disappear. Set the dish of custard at once into cold water, continue the stirring for 2 or 3 minutes, then renew the water and stir for 2 or 3 minutes longer. Flavor with ¾ teaspoon vanilla just before serving. Serve in glass dishes or cups with a "snow egg" on top of each. Grate a little nutmeg on the eggs if desired. To make the snow eggs: Beat the whites of 2 eggs very dry, and then beat in gradually a scant ½ cup sugar. Beat until very dry again. Have ready a pan of boiling water on the back of the range where it will not bubble. Dip two tablespoons into the water, then take up a spoonful of the meringue and with the other spoon shape the top smooth, forming into an oval shape. Carefully push the meringue into the water, and continue until all is used. Turn the "eggs" often and let cook about 20 minutes. Stewed Figs with Charlotte Russe Cream:—Pour boiling water over 12 firs. let stand a few moments the

Stewed Figs with Charlotte Russe Cream:—Pour boiling water over 12 figs, let stand a few moments then pour off and set to cook in a fresh supply. Let cook rapidly until the skins are tender, then add ½ cup sugar and cook until the liquid is well reduced. Cool the figs, cut each into slices and put the slices in glasses. Pour on the liquid, also a tablespoon of lemon or orange juice. Beat 34 cup cream until stiff also the white of a small egg until dry. Beat a scant ¼ cup sugar into the white and into this fold the cream. Pipe. the mixture on the figs in the glasses, chill and serve. Dried peaches or apricots may be prepared in the same

Potato Patties with Peas or Egg:-Select large potatoes of uniform shape and size. Pare, cut off a slice, then hollow to make cups or thin shells. Let stand in cold water till about ready to serve, then wipe dry and fry in deep fat. Drain on paper in a warm place, sprinkle the inside with a little salt and use as receptacles for cooked peas, nicely seasoned, or for poached egg, creamed fish or chicken, or almost any kind of vegetable. Serve very hot. Breaded Lamb Chops:-Wipe the

Breaded Lamb Chops:-Wipe the chops and dip in soft bread crumbs, then in egg beaten with ¼ cup water, then in bread crumbs seasoned with salt and pepper. Place on a buttered bakingdish and bake 15 to 20 minutes. Serve with sauce made as follows: To 1½ cups brown gravy add a dessert spoon of red currant jelly, and the same of tomato ketchup. Chopped pickles may be added if liked.

Smiles.

Sizing up Louis.—There recently came to a fashionable shoe-shop in Chicago a daughter of a man whose wealth has been acquired within very recent years. The young woman was disposed to patronize the clerk, and rejected a number of "classy" slippers he produced for her approval. Finally she said: "I think, perhaps, I shall take these two pairs. But Louis XV. heels are too high for me. Give me a size lower or, stay—perhaps Louis XIII. will be high enough."—Harper's. APRIL 20,

Our

The Ro

Author of "Do the Door," Alone," "

My steps The hut wa Santell had fore, and I h past the tim for me to co longer, excep start down th as I neared t queer-pitched cicada in som

"He's stea Waits for you his party of 0 lie about his Now you're g me over—turn and Santell flu

The words intact in rec heads of them and could not many approad out, was starjust now the that one coulto stay the m some distemp as I. Yet tho tion, it was u apologetically swiftly re-flusl away in the sa "Wait, Mr.

He turned. "It did ha speaking caref no will to do to me almost friend sent a so I had merely seeing Miss R "I don't be

"Won't you "No. . . with me," he s "I'll stay here "You'd bett

Santell was g We walked rising way... how little I k for the inner u "I'm very so she said, as we "It was cer matter."

matter." "He's a boy should—oh, it alone here, if t "But don't

your life—and business is to f "Yes, but he —as others do are reality to h my father. H do not fashion charge "



It is in your own interests, then, that we ask you to mail the coupon, properly filled out, TO-DAY. We will gladly send you the new book on "Superior" Separator facts, showing the improvements we have made in the new machine we now offer under the name of

"Superior" Separators

The ball-and-socket spindle, ensuring an absolutely self-balancing bowl, is but one of the new and exclusive features which place the "SUPERIOR" in the very front rank of cream separators. Even if you are not a "National" owner, mail the coupon to-day for the booklet.

The Ontario Machine Co., Limited 18 Bloor Street East TORONTO

Successors to the Raymond Manufacturing Company Limited, of Guelph, Ontario

Agents wanted for unrepresented territories.

Please Mail This Coupon TODAY. The ONTARIO MACHINE COMPANY, Linited 18 Bloor Street East, Toronto

| I own a National Separator, Number | I disposed of my National Separator to

NAME ADDRESS

The Archbishop of Canterbury was to officiate at an important service in London. The main entrance to the Abbey was opened, and a great space roped off so that the dignitaries might alight from their equipages unmolested. When a dusty four-wheeler crossed the square, driven by a fat, red-faced cabby, bobbies rushed out to head him off.

'Get out of 'ere,' one of them called briskly. 'This entrance is reserved for the Archbishop.'

With a wink and a backward jerk of his thumb the irrepressible cabby replied, cheerfully:

'l'ave the old **duffer ins**ide.'—'Christian Register.' said bitterly, w wait—I might servants to sta helper, and leav to join us at hi He drew the

as he spoke. M The Chinese a chances plainly had asked if sh but this was b Yuan. For m tired I was unt quin fell and w An hour passed voiceless urging side, by side, . There was far ahead in th up, the native r in the river belo 'That is good "There is a triff -fast punting o nine o'clock. W night."

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THE FARMER'S ADVOCATE.

The Road of Living Men. BY WILL LEVINGTON COMFORT.

Our Serial Story

Author of "Down Among Men," "Fate Knocks at the Door," "Red Fleece," "Routledge Rides Alone," "Midstream," "The Child and the Country," etc. Serial Rights Secured.

IX.

My steps were noiseless in the sand. The hut was larger than I thought. Santell had entered many minutes before, and I had not seen him go. It was past the time Mary Romany had said for me to come. I would have waited longer, except for Yuan's straining to start down the river. There was no sound as I neared the door. Suddenly now the queer-pitched voice was upraised-like a cicada in some oppressive forest stillness:

"He's stealing you—that's all. Waits for your father to go away—brings his party of Chinos. You catch him in a lie about his party, and he lies out of it. Now you're going. The old man will look me over-turn sick at the sight of me-"" and Santell flung himself forth.

The words were like nails. They are heads of them. Santell felt what he said, and could not change. His mind had not many approaches. His face, as he rushed out, was startlingly flawless as ever, but just now the expression was so flighty that one could not seize upon a thought to stay the momentum behind. A handsome distempered child, this being tall as I. Yet though his rage held my atten-tion, it was empty. The face softened apologetically, as he saw me; then as-swiftly re-flushed with anger. He stamped away in the sand. "Wait, Mr. Santell," I called.

He turned.

"It did happen strangely," I said, speaking carefully as to a child, yet with no will to do so. "The news is as fresh to me almost as to work." to me almost as to you. They are killing missionaries down the river. A good Friend sent a sort of rescue party after me. I had merely come with the hope of— seeing Miss Romany—" "I don't believe it."

"Won't you return with us?" "No. . . Her father left her here with me," he said with a toss of his head. "I'll stay here on the plant—" "You'd better come," the woman said.

Santell was gone, and she turned to me. Santell was gone, and she turned to me. We walked swiftly, silently up the rising way. . . Forcibly, I realized now how little I knew Mary Romany—save for the inner unutterable attraction. "I'm very sorry you had to hear that," she said, as we climbed the hill. "It was certainly a new view of the matter."

matter.

"He's a boy in so many ways. Yet I should—oh, it's dreadful for him to be alone here, if the Chinese—" "But don't you see-if he's afraid for

your life-and you insist on going, his business is to follow you."

'Yes, but he doesn't see things as we as others do. The mining operations are reality to him, and he's very loyal to my father. He's ruffled because things do not fashion to his plan, while he's in

clouds gathered again, and the face of the water and the canyon-walls became one in blackness. Yuan made us understand that his position was a peculiar one; that his family, while not belonging to the societies so hostile to the foreigners, could not without loss of caste and fortune openly assist the whites. It was not necessary for him to point out the treatment accorded to poor Chinese homemakers when abroad, nor to remind us of what China has endured from English and Americans here. Yuan carefully enlarged our conception of the Chinese disregard of human life. No one could have made these matters stand out with less words, nor fairer. I perceived that our friend's future would be seriously menaced if he were found militant in our behalf. . . Once I leaned forward to Mary Romany, and she took my hand.

"It's very wonderful to be here with you," I said, and I'm sure no one ever repeated that ancient sentence with more thrilling truth. .

A waver of red in the sky above Liu chuan—a gleam of red silk under crepe. Word from Yuan, and the boys at the long curving sculls strained harder. Two others joined them from the group aft, whose muttering had become louder, since the turn of the river and the red in the sky. The breathing of the four was curiously like the low hissing of a steam-exhaust. . . . The touch of her hands exhaust. . . . The touch of her hands made me think of the music in Hong Kong.

"I never can remember the theme, only the spirit of that Chopin Larghetto," I said

"How strange," she whispered. "I was thinking of Hong Kong and that night just now. Our F Minor night.... How restless the Chinese are-

"It's the schoolhouse near the Mission," Yuan said quietly. "These Chinese have fired it."... Then he added for us only to hear: "They've begun early. I'll put you off at our private landing. There'll be a keeper at the Gate. I'll cross over to i'm duar and sea what say he done." Liu chuan-and see what can be done.

We slid past one of the cuts leading up to the Liu chuan cliffs. The fire stood out clearly. A junk floated by nearer shore, as we approached Yuan's landing. The natives in the two boats exchanged talk in a low voluble fashion. Yuan's face, caught in the lantern-ray, was like a weathered marble. . . . Mary Romany and I could whisper no more. We were thinking of the others. It was difficult to realize that our lives were exposed to any danger... The other boat had turned and seemed to follow us slowly. Yuan spoke with sudden anger at one of the Chinese-for something that had been called back to the strangers.

"These are not all my personal ser-vants," he said in English. "The river

men are always awake to disorder." ... I knew enough to understand that the word of our presence had gone to the other boat. In spite of this, I did a thoughtless thing in my eagerness for Yuan to become active in behalf of those

in Liu chuan. "Don't think of it," I said, when he suggested accompanying us to the Gate. "Just leave us here—and hurry over."

My words might have made no differ-It is true, however, that eyen ence. Yuan had not yet an accurate conception of the forces of the night; and his heart and soul were magnetized by the woman across the river. I had a fleeting sense of disaster as the boat swung out into the current once more, leaving us at the foot of the defile, that led upward to the wilted white pagoda marking the gate to the Kang Su estate.



charge." "There's only to leave him," Yuan said bitterly, when we joined him. "Yet wait-I might order one of my houseservants to stay as a guide and possible helper, and leave a note asking him again to join us at his convenience

He drew the curtains of the palanquin as he spoke. Mary Romany thanked him. The Chinese added to Santell's slender chances plainly relieved her mind. She had asked if she might not walk with us, but this was beyond the imagination of Yuan. For myself I didn't know how tired I was until the screen of the palanquin fell and we were on the way. . . An hour passed, and another-a rapid, voiceless urging forward, Yuan and I side, by side, when the trail allowed. . There was a call from the Chinese far ahead in the night. When we came up, the native reported our boat, waiting

in the river below. "That is good," Yuan said gratefully. "There is a trifle over twenty miles to do -fast punting down stream and not yet nine o'clock. We shall be there by midnight.'

. The moon lifted for a while, and we could see (from beneath the matting forward) the glistening bodies of the two punters, naked above the waist. But the We waited a moment in the silence.

. . . A sentence which some one has taught me as a child came back to mind.

"... They shall run and not be weary; they shall walk and not faint." ... Now, I became very sure that the boat of the talkative strangers was slipping quietly toward us along to shore. Yuan's boat was out in mid-stream. Mary Romany stood very close to me. . . . There was more to that old scripture—something .about "their" strength being renewed . . . The sky was redder across the river. The moon was shrouded, and the smell of rain freshened the air, the first drops splashing immediately.

"Take my arm," I whispered

The way was narrow and winding, a wild and charming ascent in daylight. ... Santell, alone up in Hsi tin lin, crossed my mind—perhaps because the woman was thinking of him: This took the tang from the adventure. . . . The other boat touched the landing below-low voices,

No. 1 Timothy 5.75 No. 2 Timothy	Comptons
Slightly hulled, but Extra	GRAIN-Sacks Free Per bus.
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THE FARMER'S ADVOCATE.

Not a gas range

Stop stooping - Lighten your housework

Here is the modern way to bake. This is the modern range that takes the weariness out of baking. It is the wonderful LIGHTER DAY RANGE that burns coal or wood and has a high oven.

Think of an oven you can attend without stooping; an oven with a clear glass door at a height where you can always see through without bending over; the thermometer up where you can see it; all these things at handy standing height-and that in a range that burns coal or wood. Is it worth while now to keep on using the old-style range? Do you wonder that women have taken the LIGHTER DAY into their hearts, thankful for the relief from continual tiresome stooping on bake days?

The LIGHTER DAY RANGE has 6 pot-holes -two inside to shut in strong cooking odors.

The Warming Closet is just over the oven, where it can be reached without lifting dishes over steaming hot kettles. This Warming Closet is directly heated by the fire like a second oven.

Clear White Porcelain Enamel lines the top of the

A wide, deep Storage Closet with full-nickel drop-door keeps pots and pans out of sight.

The LIGHTER DAY stands up off the floor, giving a clear sweeping place.

Can any woman afford to tire herself day after day attending to an old-style range? Wouldn't it be a wonderful saving of strength to have a LIGHTER DAY High Oven Range in the kitchen?



for coal or wood To see the wonderful labor-saving features of the LIGHTER DAY RANGE you have only to send us the coupon. We will send you a book made up of the pictures we took of a housewife actually using the range. This is next best to seeing the range itself. Mail the coupon for a free conv. Mail the coupon for a free copy.

CLARE BROS. & CO., Limited, Preston, Ont.

Steel Constructed

Clare Bros. & Co., Limited, Preston, Ont .:

Send Free Book of Photos of LIGHTER DAY RANGE.

(Farmer's Advocate)

FOUNDED 1866

the glint of a moving light at the riveredge. Perversely I began to question myself, if I were not taking these unknown Chinese too seriously. A man is invariably as much afraid of his fear, as of his danger. ... The strange party was following us up. I determined not to hurry to the Gate, lest it not be opened quickly, and the others overtake us. Rain, darkness, stillness, the woman, alien voices—and the red was wavering out of the sky across the river.

"We must step aside, and let them pass. I don't think they belong to Yuan's household," I whispered. Unquestioning she obeyed, holding fast to my arm, as we pressed through the thickness of foliage. Off the path the earth was slipfoliage. Off the path the earth was slip-pery soft, where not woven with roots. There was no need to tell her to step lightly. She chose her way through the densities as softly as the ticking of the rain on the leaves. Farther and farther we penetrated.... The low volubility of the strange Chinese now abreast of us on the path, fell like sleet upon naked nerves, They were looking for us, suspicious of They were looking for us, suspicious of our landing, unknown deviltry in their hearts. I saw the faces in the light they carried, light that leaked from a broken tin lantern. My left hand moved over to the woman's, which held so firmly to my right arm.

Upward they moved—four river-na-tives.... We heard them finally at the Gate, the beast-like monotony of intonation. . . At this instant, a different sound seemed to come over the river.

"Do you hear anything?" "Yes, a far-off shouting," she answered. And Yuan's figure of the old-mother dog rolling upon one of the litter curiously returned.

"We must go in deeper-they are coming back." I told her.

path—voices that could not be brought down to a whisper, unfinished in tone and volume, voices of the preying night. Occasionally we caught the glow of the lantern beyond the wall of foliage. I feared they might find her sharp heel-mark, as it left the flinty path for the spongy thicket. Possibly they were not certain that we had left the boat; or they may have thought that we had entered Yuan's gardens. In any event, they passed on down to the landing. The woman was standing upon a hassock of roots, her left arm very close. My lips touched the seam at her shoulder—the fruition of that old impulse in the music-room in Hong Kong. She could not know.

To be continned.

The Dollar Chain

A fund maintained by readers of THE FARMER'S ADVOCATE AND HOME MAGA-ZINE for (1) Red Cross Supplies; (2) Soldiers' Comforts; (3) Belgian Relief; (4) Serbian Relief.

Contributions from April 7th to April

Ormiston Stewart, Stewart Hall, Ont.,
\$1.00; "Subscriber," Branchton, Ont.,
\$10.00; Marion and Irene Sleightholm,
\$1.00; "Unknown," \$2.00; "Toronto,"
\$2.00; "S," \$6.80; Joseph Gagnon, Pinewood, Ont., \$2.00; "A Friend," \$3.00;
Jas. Elrick, Fergusonville, Ont., \$2.00.
A pair of socks from "A Helper."

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THE FARMER'S ADVOCATE.

With Labor Scarce This Year This Standard Is a Real Necessity

The scarcity of farm labor is a very pressing problem. Every means must be taken to save both time and labor, because there are fewer to do the work on the farms this year.

Certainly, the old-style gravity method of separating cream should be replaced by the labor- and time-saving modern method. It only takes 15 minutes to skim the milk with a



MADE IN CANADA **Cream Separator**

-and only a few minutes to wash the separator thoroughly; a mere fraction of the time taken by the tedious gravity method.

The Standard will save you more time than an ordinary cream separator. It is an exceedingly light-running machine, and a person therefore does not require frequent rests! during the skimming. Its handle is placed exactly at the right height for easy turning, and it's a short lift to pour the milk into its low supply-can. The Standard was designed to save the utmost possible time and labor, as well as to establish remarkable skimming records. Even the oiling

is done automatically, the oil reservoir only requiring to be filled every two months. Just think of what such a machine would mean to you this busy year!

Think, too, how much extra money it would make for you. Government Dairy School Tests show that it skims down to .01 per cent., which means that it loses but one-tenth of a pound of butter-fat, or 21/2 cents worth of cream (at 25c. a lb.), in every 1,000 pounds of milk skimmed. You lose about \$12 per cow per year by using gravity methods instead of the Standard Cream Separator.

Don't delay your purchase. Now is the time to get a Standard. These are prosperous times on the farm, and almost every farmer can afford to own a high-class separator. In fact, from a dollar-and-cents standpont no dairy farmer can afford not to own a Standard.

Write for our Separator Catalogue showing Government tests, skimming tables, etc. It's well worth having, and is free.

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reached \$140 towards our next remittance, DONT THROW all from voluntary givers, for, knowing how many claims there are, we make no direct appeal—only put a "thank you" into the papers as the money comes in.

We are supplied with ample proof that every dollar sent through this splendidly organized committee supplies food, meagre as it is, and only able to help towards the ONE-MEAL-A-DAY, which is all those starving people can hope for; but, still, it is definite and very real help to the Committee, and we hope to keep our fund going if our friends will continue to help us. We wish our Dollar Chain friends a peaceful blessed Easter and thank them heartily for their contributions.

Very faithfully yours, H. A. BOOMER,

News of the Week

Toronto University has sent 2,500 graduates and undergraduates to the war. * * * *

Church Union was again recommended by the Union Committee of the General Assembly of the Presbyterian Church of The resolution will be con-Canada. sidered at the meeting of the Assembly in

some time ago asked for the withdrawal of all American troops. * * * *

At time of going to press there is a lull in infantry fighting at Verdun, al-though, after nearly 60 days of conflict, the artillery bombardment still goes on. where another great attack is expected at any moment, notwithstanding the fact that the Germans, in spite of their free use of flaming liquids, have lost heavily. The Crown Prince seems determined to drive his men forward to the end. From the East comes the word that the Turks at Trebizond and Sivas have been heavily reinforced by the Germans. General Lake, however, officially reports marked gain for the British troops in Mesopotamia during the past fortnight. The relief of General Townshend, shut up for over 50 days in Kut-el-Amara, seems to be in sight. West of Erzeroum the Turks have been defeated after a six days' battle.



Our Senior Beavers. [For all Beavers from Senior Third



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a full size bottle and Ekin Wal-lick's new book, "The Attractive Home. This book is worth one dollar and the Calaria calls for 25 dollar, and the Colorite sells for 25 cents. We will send both "\$!.25 worth -for 45 cents in stamps. Mr. W. llick is a contributor to the Ladies' Hore Journal and a national authority on home decoration. He tells all about rugs, wall covering, lighting, pictures, etc. Every woman ought to own this book. Write today giving the name of nearest drug or department store—and be sure to mention shade of Colorite desired. Carpenter-Morton Co-Carpenter-Morton Co. Also Makers of Campbell's Varnish Stain 77 Sudbury Street, Boston, Mass. Canadian Distributors: A. Parsay & Montreal.

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You can make a new hat of it

with Colorite-not only new, but a hat so fresh and dainty

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Waterproof and durable. There are thirteen colors—Jet Black, Dull Black, Cardinal Red, Yellew, Nivy Blue, Cadet Blue, Sage Green, Cerise, Burnt Straw, Brown, Violet and Lavender. Anybody can apply it—it drives in 30 minutes. Also used for color-ing satin and canvas slippers and basketry. Sold by drug and department stores throughout Canada. If your dealer can-not supply you

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it brand new.

Winnipeg in June. * * * *

Richard Harding Davis, noted as war correspondent and novelist, died in New York State last week. * * * *

* The British Army in France has been increased to 2,500,000. * * * *

The Allies are to land forces on another Greek island, Cephalonia. * * * *

French troops may be equipped with steel breast-plates, as well as steel hel-* * * *

French, British and Japanese officers are now assisting in the command of the Rússian artillery.

*

A battle has occurred in Mexico between the natives and the American troops under General Pershing, which went in pursuit of the infamous Villa, who, it is now reported, is dead. Grave fears are entertained for the safety of the Americans, who are fighting in a particularly difficult country. Carranza

to Junior High School Form, inclusive.]

An Early Riser. BY NELLIE M. COYE. When Mr. Toad crawled out of bed He blinked his sleepy eyes; And then began to hop about And take some exercise. His breakfast was the thing for which He felt a great desire; But flies and bugs are very scarce Before May builds her fire.

And so he squatted on the ground In corner quite remote, And did a very natural thing: Began to change his coat. And when the sun grew warm and bright, And bugs began to fly, Wise Mr. Toad was all prepared The first one to espy.

Funnigrams.

Neutral.-Historical controversies are creeping into the schools. In a New York public institution attended by many races, during an examination in history the



No.1 Norway Pine Staves with tongue and groove. Bound with patent galvanized steel cables. Send for our catalogue "B", with colours.

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T handles two jobs at the same time! The Page Governor Pulley makes it possible to run a power churn, or some other machine, at the same time you are separating the milk. You can run the separator even more smoothly than you could turn it by hand, at the exact speed you wish. The Governor Pulley is shown below attached to the floor, but it can also be attached to wall or ceiling—saving space and doubling the usefulness of your engine.

PAGE Separator Outfit

Thus for less than half the cost of a horse you get a "PAGE" Quality Engine that will run separator and churn, pump water, saw wood, grind feed, run the fanning mill, tool grinder, ensilage cutter and washing machine—at a cost of less than 3c. an hour for fuel.

It's the cheapest and most satisfactory kind of labor that any farmer or dairyman can employ.

THE PAGE WIRE FENCE COMPANY, Limited

Complete equipment to operate your separator by power: 1½ h.-p. Page Engine, with Webster Magneto, as illustrated (The same engine with battery equipment costs \$42.50) 1 Page Governor Pulley, as shown 1 Pulley for Cream Separator Rubber Belting, 2 inches wide, 4-ply, per foot Thus for less than hold the cost of a horse support a "PACE" Ounlit

1143 King St. West, TORONTO 517 Notre Dame St. West, Montreal 39

This is the Governor Pulley

If you wish to order the outfit described in this advertisement, state in letter the make of your separator, size of shaft for the plain pulley; and send along bank draft, money order or personal cheque. We ship promptly.

FOUNDED 1866

teacher asked a little chap, "Who dis covered America?'

He was evidently thrown into a panic and hesitated, much to the teacher's sur-

prize, to make any reply. "Oh, please, ma'am," he finally stammered, "ask me somethin' else."

"Something else, Jimmy? Why should I do that?"

"The fellers was talkin' 'bout it yes-terday," replied Jimmy. "Pat McGee said it was discovered by an Irish saint, Olaf he said it was a sailor from Norway and Giovanni said it was Columbus, an if you'd 'a' seen what happened you wouldn't ask a little feller like me."-Kansas City Star.

Aunty's Joy.—" I told you last Sabbath, children, " said the Sunday-school teacher, 'that you should all try to make some one happy during the week. How many of

\$50.00

39 Dock St., St. John, N.B.

8.50 2.50

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you have?" "I did," answered a boy promptly. "That's nice, Johnny. What did you do?"

"I went to see my aunt, and she's always happy when I go home again."-Boston Transcript.

My First Skate.

In giving the description of my first skate it is my intention to warn boys and girls who have had no experience at skating of dangers and misfortune which are apt to befall them.

It was the fine bright morning of Feb. 26th., but it was biting cold—so cold that the least weight upon a board would cause it to crack. We boys had made up our minds that if the ice on the old millpond was frozen hard enough to hold us we would gather at Tom Cook's at one o'clock p. m., and enjoy an afternoon of skating. Really, I was so tickled to think I was going to learn to skate that I went there long before the appointed time. Soon there were quite a few of us, but we noticed that Bob Jones and another boy had not come 'so we called for them. Now that we were all to

gether we hustled off to the pond. We reached it in a very short time but I ran ahead of the others so that I could get skating before them. In my haste to get skating I put my skates on back wards. Of course, when they saw I had them on the wrong way they laughed at me and I felt too silly for anything. One boy came over and strapped the skates on in the proper way and fixed the skates

right. Then everybody was ready. Most of the boys were skating before] could get near the pond but with a boy to steady me I got there. He shoved and steadied me on the ice and I thought I was doing first-rate. Then he told me that in order to go ahead myself] had better learn to strike out. So he went away and I was obliged to do the best I could. Hardly had he left me when I fell down and raised a most terrible lump (as I thought it to be) upon the back of my head. One of the boys belowd me to get up hut og doing a boys helped me to get up but on doing so I felt so sore that I thought I had better sit down and rest for a while.

When I saw the other boys enjoying the time I thought there was no use of me not trying to have some fun too, so I managed to get up and get a-going. I had forgotten how I was to do in order to go ahead so one boy told me to strike I had gone round and round the out. pond time and again and did pretty well for the first time but my ankles and feet felt tired. Yet I made up my mind

I had



APRIL 2

Here' mers. I appearai protect y weather. construc vanized tions at all ready set it u cheaper

Don't housing y drive she

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Our no our garag you free.



Preston, an



Hisco

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HISCO 61A Colleg







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THE FARMER'S ADVOCATE.



Here's just the garage for far-mers. It's low in cost, neat in appearance, weather-proof, and will protect your car during all kinds of weather. The sides are of frame construction and the roof is galvanized iron. It is built in sections at our factory and shipped all ready to set up. Two men can set it up in three hours. It is cheaper than you can have one erected in any other way.

Don't void your insurance by housing your car in your barn or drive shed-get a "King" Garage.

Our new booklet tells all about our garages. A copy will be sent to you free. Write to-day.

The Metal Shingle & Siding Company

Preston, Ont.; Montreal, Que., and Toronto, Ont.



with their 24 years' success? Methods which have won the approval of the most particular women all over Canada. If you are not, you should write for our free booklet F. It not only tells all about the complexion, but it tells how we permanent-ly remove Superfluous Hair, Moles, Warts, etc. Call and see us, or write. We can help you to better looks.

HISCOTT INSTITUTE 61A College St., Toronto

Western

Canada

NEEDS

Our teacher's name is Miss Gillard, and we like her very much, but just now she has the measles and she caught them from me. I went away and I think I got them on the train. There are nine children besides me that have the measles, so our school is closed. For a pet I have a dog named Sport, and he is so lively that we have to keep a block on the end of his chain so he

won't chase the chickens. We live on a farm of one hundred acres about half a mile from Springford. As my letter is getting rather long I

will close with a riddle. What did the cat say when it came

out of the ark. Ans.—Is that Ar—a—rat?

I hope the waste paper basket has just got home from a feast when my letter arrives

Springford, Ont. EWART VARDON. Honor Roll.

As there is not space to publish all As there is not space to publish all the letters the following names are given a place in the Honor Roll: Bessie McNaughton, Quebec; Elsie Mason, Georgina Smart, Melvin Carter, Veronica Houlahan, Grayce Jarvis, Lorne Hannah, Elmer Stoltz, Leila Stinson, Mildred Gile, Irene Scott, Leo Phillips,Effie McRae, Hilda Johnson, Alice Treffry McRae, Hilda Johnson, Alice Treffry.

Beaver Circle Notes. The following wish Beavers to write

to them: Mildred Gile (age 13), Harlem, Ont. Irene Scott (Sr. III), Balaclava, Ont., wishes Robert Ripley to write to her. Effie McRae (age 11), Bainsville, Ont.

Riddles

Why does the Kaiser like the fresh air? Ans.—Because he doesn't like the kitchen air (Kitchener). Sent by Elsie Mason, R. 1, Ballycroy, Ont.

Why is a doctor never sea-sick? Ans.— Because he is used to "see" sickness.— Georgina Smart, R. 3, Cookstown, Ont. A little white house all full of meat, no doors nor window to get in to eat.— Ans.—An egg. Sent by Elmer Stoltz, R. 1, Ayr, Ont.

What goes up and down stairs on their heads? Ans.—The nails in our shoes-Alta Clarke.

Of what pain do we make light? Ans. -a window pane. What is the closest relation to a tree?

Ans.—Its branches. Why does a stove smoke? Ans .-

Because it can't chew. EFI IE MCRAE.

Our Junior Beavers.

[For Beavers up to Junior Third Class, inclusive. Junior Beavers' Letter Box.

Dear Puck and Beavers .- This is my first letter to your Circle. I read the Beavers Circle and think it is fine. I am 9 years old and am in the Sr. second class at school. Our teachers name is Miss Scott. I like her very much. For pets I have a horse, a dog and three cats. I hope the W. P. B. is not hungry. I will close with a riddle. What stands on one leg and has his heart in his head? ns.—Cabbage: Annie Nichol. R. R. 1, Listowel, Ont. Ans.—Cabbage.

Dear Puck and Beavers .- My father has been taking the Farmer's Advocate for some time and I enjoy reading the letters in the Beaver Circle very much but this is my first attempt to write to it. I live on a farm about four miles from Appin. Our school is about a half a mile





10,000 MEN FOR SPRING SEEDING

Steady Employment - Good Wages. Low Homeseekers' and Settlers' Fares now in effect.

For tickets and information apply to nearest C. N. Rly. Agent.



from my home. I am in the second class and am ten years old. Our teacher's name is Miss Peters. Our school took first prize in parade at our school fair at Appin last fall. I will close now with a riddle. What is most like a cats tail? Ans.—A kittens tail. Walker's, Ont. CHARLIE G. BOYD.

Dear Puck and Beavers .- This is my second letter to your Circle. As I saw my letter in the Advocate before I thought I would try again. Our teacher's name is Miss Johnstone. We like her very well. There are about 36 go to our school.

My father has taken the Advocate for about three years. For pets I have for about three years. For power and two cats. Their names are Spot and Jack. Well as my letter is getting long I will close with a riddle: When was I will close with a riddle: When was beef the highest? Ans.—When the cow jumped over the moon. MyRTLE GALBRAITH.

Milton, R. R. No. 4. Age 9, Sr. II Class. I wish some of the Beavers would write to me.



by day.

Does Your School Fly the Flag?

Why not have a Dennis Steel Flagpole erected and promote patriotism in the future generation by flying the flag all year round.

We make several sizes; very moderately priced. Write for particulars.

THE DENNIS WIRE AND IRON WORKS CO. LIMITED LONDON

Ornamental Iron, Bronze and wire work of every kind, including: Grills, and Metal Wickets for banks and offices, Iron and Bronze Gates, Tablets, Complete Iron Stairways, Railings, Elevator Enclosures and Cages, Marquis s, Balconies, Church Fixtures, Fire Escapes, Crestings, Window Guards, Screens, Lamp Standards, Steel Window Sash, Jail Cells, Stable Fittings, Lavitory Partitions, Wire Signs, Iron and Wire Specialties, Steel Office Equipment, Steel Wardrobe Lockers, Steel Material Lockers, Steel Shelving, Steel Bins, Steel Tote Boxes, Steel Factory Stools, Steel and Wire Partitions, Steel Cabinets.



 BROWN'S SICILIAN BUTTERCUPS AND D. W. Young's S.C. W. Leghorns. The best strains of these breeds in Canada. \$2,00 and \$3,00 per setting of 15 eggs J. Victor Hews, Webbwood Ontario. CLARK'S ORPINGTONS, BUFF AND WHITE exhibition and laying strains. Hatching eggs exhibition \$5 per 15, others \$1 and \$2 per 15, \$ chicks guaranteed; \$6 per 100. A few good cockerels at \$2 and \$3 each. Catalogue free J. W. Clark, Cedar Row Farm, Cainsville, Ont CHOICE SC. BROWN LEGHORNS (BECKER strain), eggs \$1,00 per 15. Wm, Bunn, Deufield, Ont. EGGS FROM CHOICE BRED-TO-LAY Indian Runner ducks, at 75c. per cleven 	\$3 per sitting. Satisfaction guaranteed. Send for catalogue. John S .Martin, Drawer F. Port Dover, Canada. SINGLE-COMB WHITE LEGHORNS, BRED- to Lay, Eggs one-fifty per fifteen, \$7 per hundred. Chicks, fifteen dollars per hundred. Fertility and live chicks guaranteed, F. R. Oliver, Roseheath Poultry Farm, Richmond Hill, Ont. SILVER-LACED WYANDOTTE EGGS FOR sale, \$1.00 per setting, big, vigorous, well marked stock, very profitable layers. B. Linscott, Brantford. SINGLE-COMB RHODE ISLAND REDS: hatching eggs from Large, vigorous, thoroughbred, heavy winter layers, 15 eegs \$1.50	that will be standing up doing splendid service years from now. This is a point you have to watch mighty carefully. Some fences have 9-gauge horizontals, but softer, weaker wire for the stays and locks. Naturally this takes something off the price, and it takes something off the strength and durability too, far more than the difference in price. You are going to fence for a lifetime, then fence with "Ideal" and get a lifetime's service. We make a fence for every purpose. Write for a copy of our catalogue which describes them all. The McGregor-Banwell Fence Co., Limited, Walkerville, Ontario.	The Burlin Suit-\$13.00 and Carriago Our reputation the leading milds Empire, and here ada for seven your supplied thous and received thousand
up entirely of pulse wanners at Canada's from the shows. Chinese generic, device, five additional devices white, fawn and white Indian Ranners, the set Pekins, two dollars per setting. It were ware the real thing try E. S. Boker, Stamph M. Form, Guelph. FAWN AND WHITE INDIAN RENNELS. Select matings, wonderful white Taylor and Rouens. Fertile eggs \$1.00 per 12. Ernest How at	 SINGLE COMB_BLACK_MINORCA_EGGS one-fift(q) also O. A. C. oats. Fred Reckie, (unper-lower, Ont. SC. WHITE LIGHORNS BRED FROM PEDI- greed stock with heavy laying records. Eggs \$1,00 per fifteen, a hatch guaranteed, \$4,50 per fundred. Geo. D. Eletcher, R.R. L. Erin, Ont. TRAP - NESTED_WHITE_LEGHORNS, Certified eggs, record with every bird, Egge, clucker or sale. Welland View Ponltry Farn, Wellard, Ont. THEN NEW FYBLE FGG DUCK LAYS TWICE and the average here. No dark flower," Send for the dark ponlet in Your section to own some 	 For Sale – An Imported Clydesdale Stallon Syears old, weigh by a fixedy marked, with a white face and four white legs. A sure foal-getter and a good worker. Been there for five years, and secret of his colts are to be seen. Price \$1,000 cash. No second price or terms. IteNRY M. DOUGLAS, Central Hotel, Elmvale, Ont. WHITE INDIAN RUNNER DUCKS, EGGS A. Raison, 5 Duke St., Phone 3520, London, Ort. WHITE ORPINGTON AND BUFF ROCK of the second prize winning pens \$2,000 per 15. J. A. Henderson, and the second prize of the second perize of	If you write set of the new sectors Here's the set Address Dept. (CATES (of Tottenham 119 Wellington or, A. C. 72 ANI and O. A. C. 72 ANI GEO. D. FLETCH

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THE FARMER'S ADVOCATE.

Travel in Canada.

'POST GRADUATE COURSE'' FOR BUSINESS MEN.

Journey Across Dominion to Prince Rupert and down the Pacific Coast, a Splendid Education, says Prominent New York Merchant.

"A post-graduate course for the man of business," that is how Mr. Prentice, director of the H. L. Judd Company, one of the large business organizations of the United States, describes the trip over the Grand Trunk Pacific from Winnipeg to Prince Rupert and down the coast to Seattle.

"To take such a journey, improving oneself by observation and coming into contact with great natural wonders, may be considered a part of the education of a man wishing to consider himself among the cultured," writes Mr. Prentice.

"When I reached Winnipeg I put up at the Grand Trunk Pacific's fine hotel at Fort Garry. Fine is really too tame a word, and I think it would be more just to the company to describe it as magnificent. I was charmed with this hotel. Its situation is extremely good, and everything in the furnishings and appointments seems to be in such harmony and good taste. The service was excellent, the employees courteous, and every attention was given to the comfort of the guests. At the Macdonald, in Edmonton, belonging also to the railway, I found the same class of treatment which had so delighted me at Fort Garry—a beautifully furnished room with an immaculately clean bath-room. Such a fine hotel would have been thought entirely out of keeping with the town a few years ago. Edmonton is destined,

years ago. Edmonton is destined, I believe, to become a large metropolis. "I left Edmonton westbound at night, and in the morning found myself in the midst of fine scenery, having reached the entrance to the Rocky Mountains. I hope some day to be able to spend a long holiday in Jasper Park and in the vicinity of Mount Robson. The glimpses of the scenery which one gets from the train make one wish for closer contact with such wild natural charms. There is fine scenery between Jasper and Prince George, but I think I enjoyed most of all that through which the train passes as it skirts the bank of the Skeena. Snow-capped mountains are visible all the way, and it is a delightful trip right up to Prince Rupert, which, owing to its ideal situation, will no doubt become a very large city in the steamship "Prince Rupert," and continued on this vessel right through to Seattle. The appointments of the steamer are first-class in every respect, and I cannot too highly praise the urbanity and courtesy of the captain and other officers of the ship, or the excellent service of the dining-room. I have pleasure in anticipating a return to the Pacific by this same route, and if possible taking in the trip northward to Alaska. "The Grand Trunk Pacific have a fine proposition, and I think they are doing

roposition, and I think they are doing their best to make the trip across the Continent pleasant and agreeable to their passengers. The management deserves great praise for their enterprise, the trains being very comfortable, and the service in the dining cars excellent. Advt.

For fire-safety, inside the home use 'Metallic' Ceiling Plates

YOU can make your home fireproof and more attractive at small cost by using Metallic Ceiling and Wall Plates. Many beautiful designs with cornices and mouldings for any style of room. You can put them on old walls as easily as new. Wash them or brighten up with paint whenever desired. "Metallic" Ceiling Plates are sanitary, fireproof, inexpensive and good for a life time.

Write for booklet and prices. We manufacture all kinds of "Metallic" building materials and sell direct at lowest prices.

Metallic Roofing Co. Limited, Toronto and Winnipeg

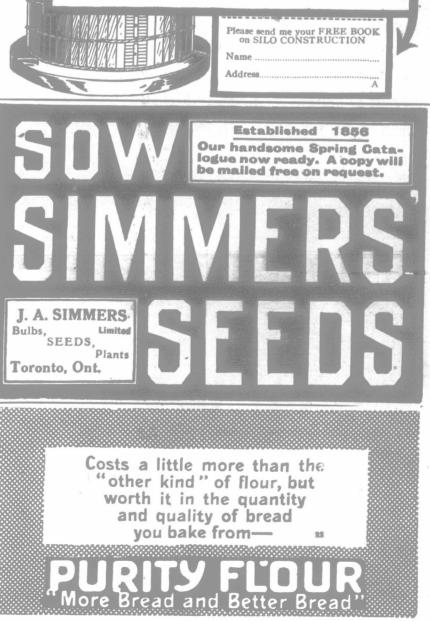
Write TO DAY for FREE BOOK on SILO CONSTRUCTION

Any farmer can erect this silo without outside help—the best silo on the market to-day. Can be put up in 10 to 15 hours absolutely without scaffolding. In the

BURLINGTON PERFECT SILO

2.x 6 inch Norway pine, selected dry stock, is used, with air-tight adjustable doors, all treated with special preservative, and painted dark red. Our patent galvanized, steel cable bands are stronger than iron bands, and have many other advantages ever iron rods, having sufficient elasticity to permit of the expansion and contraction due to change of seasons, keeping the silo tight at all times. You will be surprised, not only at the low cost of the Burlington Silo, but at the easy way it is erected. The book tells all about it. Write to-day, using the coupon below.

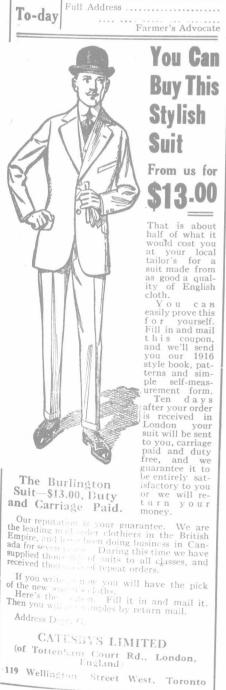
THE NICHOLSON LUMBER COMPANY, LIMITED BURLINGTON, ONTARIO





123





0. A. C. 72 AND REG. BANNER OATS, and O. A. C. 21 Barley for sale. Out of 1stprize standing the order grown from 1st-prize seed. **GEO. D.** FLE IN HER, R. R. 1, Erin, Ontario.

Points to Consider When Purchasing a Railway Ticket.

A Canadian Pacific Railway ticket does not represent merely a means of transportation between given points. It, in addition, provides the traveller with every comfort and convenience, developed by modern railway science, "Safety First," with up-to-date equipment, unexcelled dining car service, palatial sleeping cars, in a word, everything that a railway can provide for the comfortable transportation of its passengers, including courtesy.

Lucky Find.—"Ah see yo' is housecleanin'," said Mrs. Snow White. "Yes," replied Mrs. Marsh Green, "dey is nothin' lak' movin' things 'round once in a while. Why, I des come ercross a pair ob slippers under de bed dat Ah hadn't seen foh five yeahs." —Dallas News.

THE FARMER'S ADVOCATE.

Questions and Answers.

Ist—Questions asked by bona-fide subscribers "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.

address of the writer. 3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, other-wise satisfactory replies cannot be given. 4th—When a reply by mail is refaired to urgent veterinary or legal enquiries, \$1.00 must be

Miscellaneous.

Lamb Bursts Bloodvessel—Sowing

Sunflower Seed for Silage. 1. I found a ewe lamb, three weeks

old, which I had docked a week pre-

vious, very stupid. It seemed bloated

and strained. I laid the trouble to constipation. I was going to treat for this when the lamb died. I was con-

fident then it was not constipation, so opened it. The first thing that I

noticed was that the small bowels were a

dark blood-red. I soon found that all

the blood in the system was in these bowels. The flesh was as white as if it had been killed in the usual way,

and even the heart was empty and

collapsed, the lungs showed some dark

spots, and in the stomach was a ball of wool the size of a walnut, but float-

ing free and not closing either of the

openings. The large bowels were na tural in every way. What caused death

tural in every way. What caused death? I don't think the wool in the stomach

or spots on lungs or the docking of

tail, which was healing nicely, had any-

2. Myself and several of my neighbors have ordered silos, and as they are

rather new to most people here, we have

received lots of advice. We were told

for one thing to grow sunflowers with

the corn, one every five or six feet in

the row. They claimed it furnished a

great deal of oil, which was an im-

provement to silage and du away that the need for using oil cake. Has any one had any experience with this, and if so would they oblige by giving R. A. J. provement to silage and did away with

Ans.-1. The lamb evidently burst a

bloodvessel and died as the result. This

might have been occasioned by cough-

2. It is the universal practice to sow nothing with corn to improve its

quality as silage. If handled and ensiled

properly it requires nothing to improve

ture that will provide oil if such is de-

sired, and this method appears more

feasible than mixing sunflowers in the corn. If any have had such experience

as was described in the query we should be glad to give it space in these columns.

Suits Free!

Remarkable Cloth that Won't Wear Out!

pair of pants absolutely free! A most

astounding offer is being made by a well-known English firm! They have discov-ered a remarkable Holeproof Cloth.

You can't tear it! Yet it looks just the

same as \$20 suiting. You can't wear it

out no matter how hard you wear it for if during six months of solid, hard

grinding work every day of the week

(not just Sundays), you wear the smallest

hole, another garment will be given free

The firm will send a written guarantee in every parcel. Think readers just

\$6.50 for a man's suit, and only \$2.25

for a pair of pants sent to you all

Now readers, would you like a suit or

Flax sown with oats makes a mix-

thing to do with it.

The

enclosed.

724

Washes Everything gently, but thoroughly

WHETHER the tub is full of clothes, or whether there are only a few, the Maxwell Washer is equally efficient. It washes and cleans delicate fabrics as well as blankets, tablecloths or sheets.



"HOME" WASHER

is the easiest running of all washersmade with high speed balance wheel, steel ball bearings and automatically cut gear wheels. Constructed of best quality Cypress and handsomely

Insist on seeing the Maxwell Home Washer at your dealers, or write to us.

MAXWELLS LIMITED, St. Mary's, Ont. Dept. A



Will Tell You How to Make Poultry Healthy, Make Hens Lay **Make Chicks Grow**

Now that mating time has arrived, it's up to you to see that your poultry gets tonic and internal antiseptics to make them vigorous and free of disease. Therefore, feed Pan-a-ce-a.

In that condition your hens will lay better, you will get more healthy, fertile eggs and the chicks will stand a better show of reaching maturity. Therefore, feed Pan-a-ce-a.

And, before the hatches come, I want to warn against gapes, leg weakness and indigestion, for these ailments are responsible for half the babychick tosses. Therefore, feed Pan-a-ce-a-it will save you these losses.

Dr. Hess Poultry It's a Tonic—Not a Stimulant

Here are a few of the valuable ingredients in Pan-a-ce-a to meet the requirements of your poultry which I have just stated : Nux Vomica, a nerve tonic; Carbonate of Lime, a shell former; Hyposulphile of Soda, an internal antiseptic; Quassia, an appetizer; Iron, to enrich the blood, and other valuable ingredients, all well known and recommended by the highest medical and veterinary authorities.

The highest medical and veterinary authorities. Perhaps the strongest argument in favor of Pan-a-ce-a is the fact that it has been on the market for 22 years and is growing in favor each year. Read the guarantee in the right-hand panel—that is your protection. There is a Dr. Hess dealer in your town, a man whom you know, a man who stands back of my guarantee and will return your money if Pan-a-ce-a fails to make good. 1½ lbs. \$5c; 5 lbs. 85c; 12 lbs. \$1.75; 25-lb. pail, \$3.50 (duty paid).

DR. HESS & CLARK, Ashland, Ohio **Dr. Hess Stock Tonic**

25-lb. pail, \$2.25; 100-lb. sack, \$7.00 (duty paid)

Why pay the peddler twice my price? Why pay the peddler twice my price? Four stock need this tonic now to harden and condition them after the coafined heavy feeding of winter. There's nothing better to put horses in trim for hard spring and summer work. Milch cows need it just now to prepare them for the heavy milking scason abead. Dr. Hess Stock Tonic makes all stock healthy, keeps them toned up and expels worms. Sold under money-back guarantee. 25-Ib. pail, \$2.25; 100-Ib. sack, \$1.00 (duty paid); smaller pack-ses free Stock Tonic book.

Dr. Hess Instant Louse Killer

Killslice on poultry and all farm stock. Dust the hens and sprinkle it in the acets, or, if your fowl are provided with a dust bath, sprinkle Instant Louge Killer in the dust bath every other week—the hens will do the rest. Also destroys bugs on cu-oumber, squash and melon vines. er, squash and i (duty paid), (auty paid), (rantee it,

> FREE If you have a sick or fit-If you have a sick or he jured animal, write Dr. Hess, tell symptoms, enclose 2c stamp for reply, and he will send you a prescription and letter of advice from of charge.



Glibert Hess M.D., D.V.S.

APRIL 20,

Imposs

Because C last year in wheat did n figures that months of 1 think that This, despite fore the great was only in is now que The fact is congestion, v near at han the farmers or unable to have, there ulators who ing a settle turbance the alone for gra sorts that supply to t all they will to see; they longer the wa the need wh will further r lack of toni all the shi once more a there will sp ities for shipr period of ru Thus it is a how energetic may be and l there can n other fact th mind is that part of the a partner of closer proxin area to Euro recognized for will be the ea There are

personally pro Canadians not means by wl land more pr can get both t of the beast t is this eternal produced enri form or anot wise, farseeing ly profits b congestion the let Nature b man be ever a Fluctuations

always be, but fall to the leve years ago is bounds of in figured on de when they sow been disappoir and had know big world ev known that t of such inflat known, too, th spurious and o needs of the m of the speculat have taught t thorough the or may be, things return to the n At that there in face of all portation acros instances, a r figures. Meats and vegetables tions, and mos they were. Of there is, of con but there is a that no matter various spheres production, no prosecutes her cents and her and property a most but a te the streams of 1 congestion of

James Begg

Ontario, write

received an offi

View. She is a

5 per cent. fat. S

old test in Jan milk, and an of 5.02 per cent.

in their herd.

FOUNDED 1866

My Guarantee

So sure am I that Dr. Hess Poultry Pan-a-ce-a will help make your poultry healthy, help make your

hat if Pan-a-

loes not do as I

empty package and get your money back.



Look Out For The Laperial Life A strates Company' ldg ad ertisenad, bi ta xt waek ie de, en itled

"I'm Going to Put My Money" It has an interesting message for YOU. RACK CURED SHALL CURN-All varieties

charges and postage paid and guaranteed for six months solid grinding wear. Now, don't think because you are mile away you cannot test these remarkable cloths, for you simply send a 2 cent post card to The Holeproof Clothing Co., 56 Theobalds Road, London, W.C., Eng., for large range of patterns, easy self-measure chart and fashions. These are absolutely free, and postage paid. Send 2 cent post card at once! Mention "The Advocate,"—Advt. The Department of Trade and Com-

merce, by large posters, is drawing the attention of the people to the short age of paper material, and asking all to save waste paper and rags to be used in the manufacture of new papers of certain classes. There is a great need now for saving all the paper and rags commonly burned or otherwise wasted in the average household. A saving of these means genuine relief to Canada's paper industry. Rags and paper thus saved can be readily disposed of through K GRED SELF to Normal Values, the usual channels of collectors and have to be a sub-control of seed corn, the usual channels of collectors and have to a set and gradus. On seed corn best selector and troughly ackeened, industrial Department of the Salvation JOACHIM COLN GROWERS, CLUB, industrial Department of the Salvation No. 4 St. Joachim, out. Army in large centres.

Impossibility of Congestion.

Because Canada had the largest crop last year in her history, and because last year in her instory, and because wheat did not keep up to the inflated figures that characterized it in the later months of 1914, there are people who think that this year we can pause. This, despite the fact that not long before the great crisis came dollar wheat was only in men's minds, and that it is now quoted at \$1.08 and \$1.09. The fact is that absolute and enduring congestion, which some people think is near at hand, is an impossibility. If the farmers themselves are unwilling or unable to store any surplus they may have, there are capitalists and spec-ulators who will, knowing that following a settlement of the terrible dis-turbance there will be inquires not alone for grain but for produce of all sorts that will tax the channels of supply to the utmost. Nor is that all they will be sufficiently foresighted to see; they will also know that the longer the war lasts the greater will be the need when the end comes. They will further recognize that whatever the lack of tonnage may be now, with all the ships built for commerce once more available for that purpose there will speedily be plenty of facilities for shipment, even though the first period of rush may be overwhelming. Thus it is apparent that no matter how energetic and earnest our efforts may be and how satisfactory the results there can never be too much. An-other fact that must ever be borne in mind is that Canada, being an integral part of the Empire and of necessity partner of the Allies, as well as in closer proximity in a wide shipping area to Europe than any other of the recognized food-producing countries, she will be the earliest looked to.

There are other reasons besides the personally profitable that should prompt Canadians not to overlook any possible means by which they can make the land more productive—by which they can get both the most out of it and out of the beast that is on the land. There is this eternal truth, that every pound produced enriches the country in some form or another. Even of refuse the form or another. Even of refuse the wise, farseeing man makes use—ultimate-ly profits by. Thus of destructive congestion there can be no possibility, let Nature be ever so bountiful, let man be ever so energetic.

Fluctuations in prices there will always be, but that quotations will ever fall to the level of twenty-five or thirty years ago is at present beyond the bounds of imagination. Men who figured on dollar and a half wheat when they sowed last year have possibly been disappointed. If they had read, and had known the ordinary course of big world events, they would have known that there must be a decline of such inflation. They would have known, too, that such quotations were spurious and due not so much to the meeds of the market as to the methods of the appendictor. Their reacon would of the speculators. Their reason would have taught them, too, that, however thorough the operations of the marketers may be, things must and will ultimately return to the natural order of procedure. At that there has been, strange to say, in face of all the difficulties of transportation across the seas, in very few instances, a return to before-the-war figures. Meats, dairy produce, fruits and vegetables maintain their quotations, and most grains are higher than they were. Of the main causes of this there is, of course, no room to doubt, but there is an underlying realization that no matter how the nations in their various spheres endeavor to increase production, no matter how Germany prosecutes her ruthless slaying of innocents and her reckless wastage of life and property at sea, there can be at most but a temporary disturbance of the streams of trade and never a lasting congestion of marketable commodities.

"Made Right—Sold Right" Two of the Best Reasons in the World Why **Page Fence Wears Best** Made Right Finest quality of guaranteed No. 9 wire-galvanized more heavily than seems necessary, to be on the safe side. Made on the Page looms, that simply can't make fence with uneven wires-every rod looked tight for keepsa lifetime of wear in it-sightly, strong, a perfect fence.

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26 babies poisoned in 11 states; fortunately some recovered **SavetheBabies**

TANGLEFOOT

Made in Canada by THE O. & W. THUM CO., Walkerville, Ont.

American Address: Grand Rapids, Mich.

Catch the disease carrying fly that strays into your home with safe, efficient, nonpoisonous TANGLE-FOOT; not arsenic

poison in an open saucer set within reach of the baby, or a can from which a poisoned wick protrudes, sweetened to attract both flies and babies.

Flies kill many babies, and fly poison more than all other poisons combined-

-But in homes where careful mothers have protected their babies from such risks by using only TANGLEFOOT, both dangers are avoided.

TANGLEFOOT The Journal of the Michigan State Medical Society reports 26 cases of arsenical poisoning from fly destroyers in

1915 in only 11 states; in 1914 there were 46 cases in 14 states. It states editorially:

TANGLE

"Symptoms of arsenical poisoning are very similar to those of cholera iniantum; undoubtedly a number of cases of cholera infantum were really cases of arsenical poisoning, but death, if occurring, was at-tributed to cholera infantum.

"We repeat, arsenical fly destroying dewe repeat, arsenical ny destroying de-vices are dangerous and should be abol-ished. Health officials should become aroused to prevent further loss of life from their source. Our Michigan Legislature, this last session, passed a law regulating the salarof proposes fly pape



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R^{EMINGTO}N JUNIOR 1 The very latest addition to the great Rem-ington family of typewriters. A new and smaller Remington—built for the needs of the professional man and the home. At the end of 10 days, if you decide not to be an additional statest and the st

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C. Wilson & Son

45 Esplanade St. E. Toronto

Gossip. James Begg & Son, of St. Thomas, Ontario, write that they have just received an official report on a heifer in their hard. This Provide Control in their herd. This is Bernice of City View. She is a sister of the cow testing 5 per cent. fat. She finished her two-yearold test in January with 7,650 lbs. of milk, and an average butter-fat test of 5.02 per cent.



THE FARMER'S ADVOCATE.



Average first year depreciation of the Ford car is \$125 as against \$250 to \$400 for practically any of the lower priced cars

It is difficult to set any definite figure for the depreciation of an automobile. So much depends on the condition of the individual car at the end of the season.

The average price paid for used cars in the \$1000-or-less class at any time during the first year is about \$250 to \$400 less than the first cost. But the average used Ford sells very quickly for \$125 less than the purchase price.

Compare the Ford depreciation cost of about \$10 a month with the probable \$30 or more a month that the other kind will cost you. Which is the better investment?

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Ford Runabout \$480 Ford Touring - 530 Ford Coupelet - 730 Ford Sedan - 890 Ford Town Car 780 f. o. b. Ford, Ontario

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All cars completely equipped, including electric headlights. Equipment does not

include speedometer



SEE THE DIFFERENCE Here are two cans with glass sides inserted

to show contents. On the left is an ordinary varnish stain. See the muddy sediment set-tled at the bottom. It must be stirred before using, and never gives good results. On the right is Campbell's Varnish Stain_clear as a crystal-no dregs or sediment. Its ingredients are scientifically unified. You can use it on any floor or furniture with perfect results.

FOUNDED 1866

Clydesdale Stallions.

Pacific (see illustration in this issue) was imported by W. L. Mossip, St. Mary's, Ont., 1912, used in service there one season, and sold to J. W. there one season, and sold to J. W. Cowan, Cannington, Ont., where served three seasons. He was brought back March 14, 1916. Pacific is a massive March 14, 1910. Facine is a massive horse, weighing a ton; he was a noted breeding horse in Scotland and a sire of many champions, the sire of the first-prize yearling stallion and filly at Midcalder, Scotland, 1913; sire of Imp. Sailor King, imported by Graham & Renfrew Co. and first at Torotte Sailor King, imported by Graham & Renfrew Co., and first at Toronto, Guelph, Ottawa and Chicago and cham-pionship; also Dinwoodie Star imp, (Galbraith, Janesville, Wis.,) that won first and champion at the leading shows in the United States. Pacific King [16405] a yearling sold at the Cowan sale to W. J. McCallum, Brampton, for \$430. Atlantic [17573] sired by Pacific, rising 2, at the same sale sold to Peter Morrison, Woodville, for \$360. He will stand for service in St. Mary's and vicinity 1916. Another good stallion is the horse

Another good stallion is the horse Sir Randolph imp. [12372] (9649) foaled 1903, sired by Moncrieffe Marquis (9953) [6735]. Sir Randolph had the Kintyre Premium in 1905, and lower Banffshire 1906; he was the sire of the Banffshire 1906; he was the sire of the four-year-old mare at Bishopton 1909, also sire of Randolph Romeo owned by Dr. Hassard, Markham, Ont., that won first, and championship at Toronto, Guelph and Ottawa, 1915 Sir Ran-dolph in the Old Land 1903 was first at Bishopton first at Paislay first at dolph in the Old Land 1903 was **hrst at** Bishopton, first at Paisley, first **at** Beeth and reserve champion, **and at** Glasgow in 1904. He was **first at** Bishopton and champion, first at **Paisley** and champion, and at Glasgow Summer Show and at Auburn Show, and was in the short leet for Glasgow premium in the short leet for Glasgow premium. He weighs a ton, and is as clean in the legs as when foaled.

Kings Arms imp. [6117] (31553) is a big, brown, thick horse, weighing 1,900 lbs., foaled 1904, faultless in build, a grand clean set of legs, very easy keeper; sired by Rosarto by Achilles by Dashwood by Darnley 222; dam, Ann of High Ersoch by Darnley's Last: he travelled seven seasons on the one route.

King Lynn imp. [10743] (14204) foaled 1905, imported by myself in 1910, and he has travelled 5 seasons on the one route. He is a beautiful bay, strip, 3 white feet, a very pretty horse, weight 1,900, a show horse; good, clean legs; sired by Acme by Baron's Pride, and has 4 registered

These horses are all in good condition clean in their legs, sound and sure foal getters. Any of the last three for sale; terms to suit the buyer; barns in town.

W. L. Mossip, St. Mary's, Ont. Phone 177. Advt.

Gossip.

In requesting a change in their advertisement, Geo. Davis & Sons, Erin, Ont., write that their sales of Aberdeen-Angus cattle last fall and winter were very good. Some of their animals went to Rodney, Brighton, Dundalk, Trenton, and to Waseca, Sask.

APRIL 20,



Do your dr when you n Send to-day A) CA Prestor 97 DOVER

Where And what cream? We wa for us. Write f

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Costs you less than a third the price of a Leather Breast Strap and gives you greater strength where you need it. Note the heavy steel slide that bears the strain and wear of the yoke ring—the strong, hard rope that ensures greater strength.

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(\$1.00 west of Fort William.) Order a pair from your dealer, or if he doesn't stock them write us and we will see that you are sup-plied. Get acquainted with Grif-fith's Specialties. You get more value for less money by using them.
WRITE to-day for Booklet entitled "What's New for the Stable." G. L. CRIFFITH & SON, 68 Waterloo St. - - Stratford.

Clydesdale Stallion

For Sale. Cumberland Recruit (Imp. [1/372] be Lothian Again. Inspected and appreved, sure, Lothian Again. Inspected and approved, sure active, fine disposition and a splendid stock hors-Reason for selling: want of help to attend to the business. Also a few young Shorthorn bulls.

Geo. "B. "Armstrong, Teeswater, Ont. Mildmay, G.T.R., Teeswater, C.P.R. Mildmay, G.T.R.,



J. W. Burt & Sons, Aberdeen Farm, report the following recent sales: One cow to G. H. Murdoch, Wyevale, Ont.; one bull to G. P. Cole, Appleby, Ont.; one bull to John Early, Campbellville, Ont.; one bull to John Carney, Amaranth, Ont.; five yearling heifers to H. McCauley, Sask. This herd was founded in 1888, of imported stock, and has chucke herd from the best. and has always been bred from the best. In Bernice Gregory's Holstein sale at Lakeside, Ontario, advertised in this paper for April 25, are 21 females and 3

bulls, besides some high-class grades. Some of these cows will be officially tested before the sale and their actual records can be ascertained at that time, or previous by writing to Mr. Gregory. The cows are giving a good flow of milk. The season for sales will soon be over, and anyone at all interested in this class of dairy cattle should not fail to communicate with Mr. Gregory and get full particulars regarding the in-dividuals he is offering at the buyer's own price on April 25.



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THE FARMER'S ADVOCATE.

Some Shorthorn Sales in **U.** S. A.

One of the highest averages during the last few years, made by Shorthorns at public auction, occurred at the Uppermill Farm sale of Weaver & Garden, Wapello, Ia., March 29. At that time 42 head in their second annual sale averaged \$753, the total proceeds being \$32,060. The get of Imp. Villager in this auction maintained the reputation of this noted bull, as a sire of show and breeding stock. Six sons and one grandson of Villager averaged \$1,350, and eight daughters and one granddaughter averaged \$703. Females in the sale in calf to this bull, or with calves at foot sired by Villager, were much sought after. Village Crest, a a double-bred son of Villager, was purchased by F. W. Harding for \$3,325. This was a commission executed for Dr. Caledonia Pereda, of Argentina. It required \$1,800 to buy Villager's Diamond a September calf, and the right to show him this season was reserved by Weaver & Garden. Village Favorite, a roan two-year-old, realized \$1,000 while Village Robin, also a roan by Villager, sold for \$1,100 to the American Shorthorn Breeders' Association. Village Ordens, one of the good young bulls, sold at \$1,350. Village Venus 2nd, a white show heifer, and a winner on last season's circuit, sold at \$900 to a breeder who is building up a good herd. Lady Ordens 5th, with a white Villager calf at foot, was purchased at \$1,400. Another cow, Wimple 3rd, with a roan calf at side, went to Blair Bros., of Iowa, for \$1,500. Other prices paid for females were \$1,000 for Maurine, with a roan calf by Villager; \$1,025 for a daughter of Morning Star and \$750 for Village Lovely, by Villager. The 35 females led into the ring averaged \$646. At the Sittyton Grove Farm, Wheaton, Ill., Thomas Stanton sold 30 head of cattle at an average of \$644, and with

the addition of 8 head listed by an-other breeder, an average of \$558 was realized on the entire sale. Mary Anne of Lancaster 42nd, an imported cow with a heifer at foot by Archer's Hope went to W. S. Fears for \$1,620. This was the highest price paid for a female at the sale. Flora's Queen 2nd, with a bull calf by Archer's Hope, changed hands at \$1,400. Ewing Bros., of Pontiac, III., purchased this cow and also the white bull, Village Hope, by Archer's Hope at \$1,000. An average of \$630 indicates the success of a Shorthorn sale held by J. W. McDermott, Kahoka, Mo., on March 28, when 38 head were sold. The

red, roan bull, Golden Count 2nd, was purchased for \$1,500 for export to Argentina. This young bull was first the American Royal, and at the Missouri State Fair last season as a junior yearling. Scottish Marshall, an April yearling was also purchased at \$1,000 by the same buyers. One of the best young bulls in the consignment is said to have been Ontario Gloster, a full brother to Fair Acres



721

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has started many farmers on the road to saving money - and eventually to accumulating wealth.

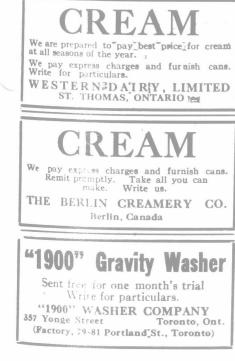
When once the first \$1,000 is saved, the second \$1,000 comes much easier. A \$1,000 Debenture at 5% for five years, pays (if compounded) \$280 in interest, a gain of 28%. It is one of the safest, if not the safest investment, for never a dollar has been lost in Ontario Mort-

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son; \$1,125 was the price paid by C. J. McMaster. Scottish King, an April calf by Cumberland Marshall, went at the handsome price of \$1,500. the handsome price of \$1,500. Lespedeza Farm paid \$2,000 for the two-year-old Fair Gift, by Good Count. She was a female with a calf at side, by Gainford Marquis 2nd. Upper-mill Farm paid \$1,825 for King's Gift, by Cumberland Marshall, and another cow, Ruberta's Image, by Cumberland Marshall, realized \$1,000. Maasden & Wheeler, Fairfield, Ia., on March 30 sold 43 head of Shorthorns in their annual auction for an average of \$472. The highest-priced animal of this sale was Imp. Cathy, by Proud Briton. She was a cow of good scale and quality and selling with good scale and quality and selling with a red bull calf at side, went to Col. C. E. Suppes, at \$1,540. Imp. Spicey Beauty 8th, by Proud Emblem, cost her buyer \$1,400, and Imp. Queen Blinkbonny sold for \$930. Proud Augusta, a daughter of Imp. Proud Marshall, sold for \$925. The highest priced bull was Willere Fact by Imp. priced bull was Village Earl, by Imp. Villager, which went to Geo Atwood, for \$650

Gloster, a successful show bull last sea-

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FOR

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THE FARMER'S ADVOCATE.

Questions and Answers. Veterinary.

Unthrifty Filly.

Yearling filly was in good condition when taken to the stable last fall. she soon began to fail, and I discovered that she had lice, and pin-worms. I treated her for these and now she has neither, but does not improve much. She eats well, but is weak. She lies a good deal. She has a watery swelling on her knee, but is not lame.

G. G. Ans.—The weakness was caused by the lice and worms. No doubt she will improve quickly as soon as she can go out on grass. In the meantime mix equal parts of gentian, ginger, nux vomica and bicarbonate of soda, and give her a heaping teaspoonful three times daily. Feed liberally on hay of first-class quality, rolled oats and bran, and a few raw roots. See that she gets regular exercise. The swelling on her knee is a serous abscess. It should be lanced at the lowest part to allow escape of the serum, and then flushed out twice daily until healed with a 5 per cent. solution of carbolic acid or one of the coal-tar antiseptics. As it is in connection with the knee it will be wise to get a veterinarian to operate.

Miscellaneous.

For Smut.

Is it wise to feed sulphur and salt mixed, say one pound of sulphur to ten pounds of salt. to stock, especially horses?

2. Give a simple receipt of how to treat seed grain for smut. E. T. M. Ans.-It would do no harm given only in quantity that the horses or other stock would eat at will. 2. See issue of March 16 special article on smut. Use formalin as

directed, either 1 pt. or 1 lb. to 42 gals. of water, or the same quantity to 30 gals. of water as recommended by Prof. Howitt in last week's issue. Sprinkle the seed thoroughly with this mixture, showelling it over until each seed is wet. Cover with sacks or canvas for 2 hours, dry and sow.

Gossip,

The following resolution was recently passed by the Directors of North York Farmers' Institute:

"That we, the members and Executive Committee of the North York Farmers Institute hereby protest against the present manner of recruiting in country districts, as we are of the opinion that one man beside the owner, should be left on a one-hundred-acre farm. Owing to the scarcity of farm labor, the land will be left uncultivated. If it is found that a sufficient number of recruits cannot be obtained by leaving one man besides the owner for each one hundred acres, we would recommend that a moderate form of conscription be adopted similar to that of England; and that a copy of this resolution be forwarded to the Minister of Agriculture of On-tario, and the Dominion."

Colonel W. C. Gorcas, Surgeon-General of the army, tells this story



Fairbank

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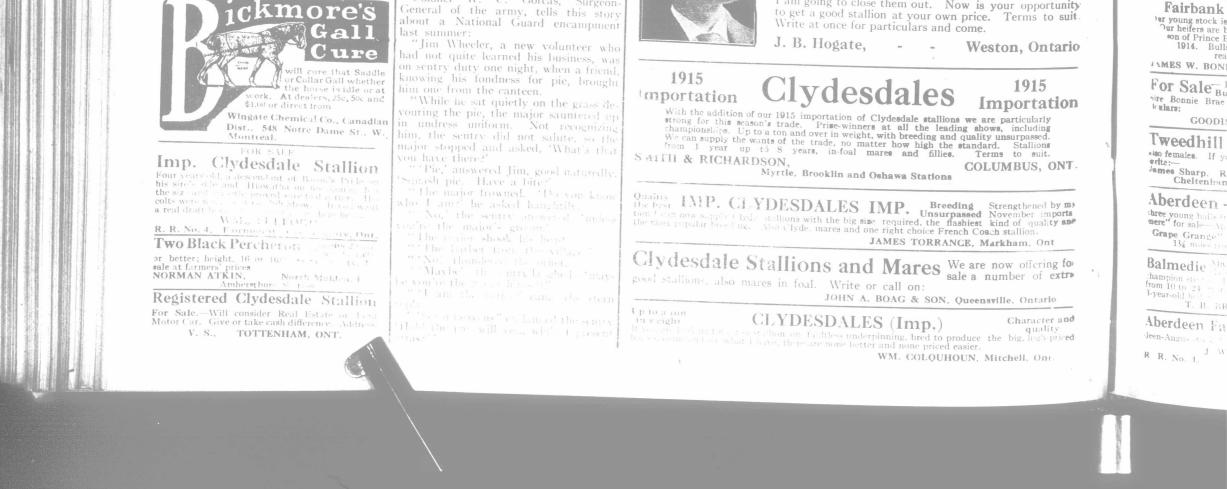
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THE FARMER'S ADVOCATE.



Shorthorns and Shropshires T. L. MERCER, Markdale, Ontario young cows in calf, heifers from calves up, and young bulls from 9 to 18 months of age, richb bred and well fieshed. In Shropshires we have a large number of ram and ewe lambs by Toronto 1st-prise ram; high-class lot.

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For Sale-Eight-monthe-old Herefer Sire Bonnie Brae fist 14155 Price and pe

GOODISON FARM, Sarnia, On:

Fairbank Aberdeen-Angus

ur young stock is sired by Elm Park Rival 43
 ¹ ur heifers are bred to Hector 9080, a worth on of Prince Bravo, champion at Toronto 1914. Bulls and heifers for sale at

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IMES W. BONE, R.R. No. 1, Belgrave, On.

Tweedhill — Aberdeen-Angus. Choir young buils of scrviceable age write:— If you want anything in this lip

James Sharp, R R 1, Terra Cotta, Ontari-Cheltenham, C. P R, & G. T. R.

Aberdeen - Angus - A few choice heifers and mere young builts from the imported sire "Prada-mere" for sale-Apply to A. DINSMORE, Mgr., Gross C. Grape Grange" Farm, Clarksburg, Ontarlo 11/4 miles tram Thornbury, G. T. R.

Balmedie Aberdeen-Angus — Get a high-hampion steese. I have show-ring quality bulls from 10 to 24 by such sof age; also choice 1- and Byear-old here with sof age; also choice 1- and T. B. BROADFOOT, Fergus, Ont.

Aberdeen Farm has for present offering den-Angus stork in the sexes, prices reasonable. R R. No. 1. J. W. Burt & Sons Hillsburg, Ontario 125 to 150 pounds per acre is considered

a fairly good application. 4. About 22 yards of gravel will be required to build the walls and roof at 25 cents per yard will cost \$5.50. Mixing the concrete in the proportions of one of cement to 8 parts gravel, about 19 barrels of cement will be required, which should be figured at the price of cement at your local dealers. It will be necessary to use woven wire in the roof in addition to the steel rails.

Summer School.

The Ontario Agricultural College has made arrangements for its second Annual Summer School for Rural Leadership. It is the purpose of this school to discuss the Country Home, School and Church, and their relation-hip to the community life. Along with these sub-jects will be given a few outline lectures en such subjects as Dairying, Animal Husbandry, Chemistry of the Farm, etc., with the idea of bringing all rural leaders, such as clergymen, teachers, etc., more closely in touch and sympathy with the problems of the farmer and



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THE FARMER'S ADVOCATE

Cold Storage and Cost of Living.

Cold storage promises as the years pass to have a greater and greater effect on the cost of living. Not only store-keepers and hotel-keepers, but ordinary householders in increasing numbers are coming to recognize that the buying of food in quantities and pre-serving in cold storage means a satis-factory dividend on investment. Hence the general interest possessed by bulletin 44, under the title of "The Cold Storage of Food Products," and written by A Ruddick Dairy and Cold Storage A. Ruddick, Dairy and Cold Storage Commissioner for the Dominion, and Joseph Burgess, Cold Storage Inspector. Every person who makes use of a kitchen refrigerator, or places milk, butter, meats, fruits or vegetables in a cool cellar, puts into practice the printiples which underlie the operation of the most up-to-date cold storage ware-house, and follows in some particulars the methods described in this comprehensive and informative publication. An example of the benefits derived from the system is furnished in the suggestion that if it were not for the cold able the price of eggs would, for lack of an immediate market, go so low during the laying period of the spring and early summer that production would be seriously discouraged, while the scarcity that would result during the season of non-supply would boost prices for all kinds of eggs to such an extent as to make them prohibitive for the majority of people. Eggs are but one of the articles of food the price of which is regulated, and to some extent standardized, by cold storage. Dairv products, meat, fish and fruit can be so kept and preserved if the treatment so kept and preserved if the treatment set out in this bulletin, which can be had for the mere effort of application to the Publications Branch, Department of Agriculture, Ottawa, be followed. It outlines all the methods and processes that are pursued in the handling, storing, shipping, and preservation of such perishable articles as apples, but-ter, cheese, vegetables, eggs, fish, game, lard, meats, milk and poultry, the necessary temperature being given in each instance, and also in the care of furs and woolens.

To A Soger's Louse.

(Written in the trenches in Flanders by a private of the Dandy Ninth, the following humorous verses are characteristic of the cheerful spirit of the troops in face of the enemy.)

Wee scampering, irritatin' scunner, Hoo dare ye worry me, I wunner; As if I hadna lots ta dae Blockin the road tae auld Calais

Without ye.

Ye hardly let me hae a doze, For ye're paradin' richt across Ma back, ma neck, an' doon ma spin, Thinkin', na doot, ve're dain' fine nkin', na doot, ye're dain' fine Sookin' ima bluid.

When at ma country's ca' I came Tae fecht for Beauty, King an' hame read ma Yellow Form twice-But it said naught about fechtin' lice, Or I'd hae gibbered.

When "Little Willies" skif ma



Dust costs money—

Dusty roads are expensive, for the presence of dust means that costly road material is being cast away to the four winds of heaven. Sooner or later it must be replaced at greater expense.

materially.

road preservation.

in maintenance expense. The

road, instead of being torn up by traffic and blown away by the

winds, stays where it is put, and the annual repair bill is reduced

Tarvia is made in three grades: "Tarvia-X" for new or rebuilt roads and pavements, "Tarvia-A"

for surface application, and, "Tar-

via-B" for dust prevention and

If you want better roads and lower taxes, our Special Service De-

partment can greatly assist you. Write to nearest office regarding

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vicinity, and the matter will have

the prompt attention of experienced engineers. This service is free.

The taxpayer foots these bills.

Ordinary waterbound macadam is not sufficiently bonded to resist modern traffic. A stronger binder is needed. That is why many Canadian towns are turning to Tarvia-a coal tar preparation of great adhesive power, which is used to cement the stone together.

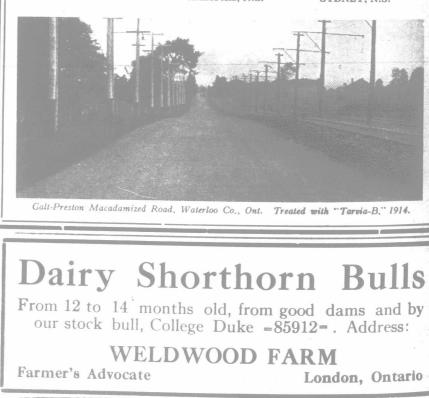
Under heavy loads a tarviated road is somewhat elastic-not brittle-and traffic wears it smoother. The Tarvia also has the effect of making the road surface waterproof and preventing raveling by rain torrents.

The addition of Tarvia to the macadam costs so little that it is more than balanced by the saving

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FOUNDED 1806

APRIL 20, Questio

SI How le 1. and shoulder it is smoked 2. What amoking mea 3. How 1 posed to the 4. Is a r keep it after

5. What to rub on c by which it Ans.—1. meat a coup place in a bri 2. Any sr

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3. I have h wo-year-old from three to and four he there any pre

Ans.-1. H wenty-six wo month. When months and o 29th day of I be in on th 28. Commence he required to

2. Good sil have any detrin of the animal to

3. Evidently with contagiou stubborn diseas treatment is to **rn** all foetu great



In Forty-five Years l'he Mutual Life of Canada never went back on a guarantee.

What YE ED: By the Farmer's Club of Cleveland, one Pure Bred Registered Data? Shouse and is recorded in the A. O. P. test of the conce, stating price. Address: Mark De data is recorded in the A. O. P. test of the conce, stating price. Address: Mark De data is recorded in the A. O. P. test of the conce, stating price. Address: Mark De data is recorded in the A. O. P. test of the conce, stating price. Address: Mark De data is recorded in the A. O. P. test of the conce, stating price. Address: Mark De data is recorded in the A. O. P. test of the conce, stating price. Address: Mark De data is recorded in the A. O. P. test of the conce, and the conce, and the conce, and the conce of the conce	 I fain would stop tae scart ma back Tae shift ye aff the bitten track Afore I fire. When through the shirt of Sister Sue I search maist carefully for you, I smile to think the busy wench Nair dreams her seams mak' sic a trench Tae gie ye cover. What Labyrinthine dugouts, too, Ye're makin' in oor kilts the moo! Ye're reinforcements tak the bun, Encouraged by the Flanders sun, Tae keep us lively. Gott strafe ye, little kittlin' beast, Ye maybe think ye'll mak a feast O' me; but no, ye'll get a "had" When next ye try, to procurate Across ma kist. The mixture in the beath here Is bound tae mak' ye disappear Nac mair I'll need tae mak' ye chek, Ain dose, they say, will dae the trick As share as death. A Member of the 9th R. S. din "The Globe". 	<section-header><section-header><text><text><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></text></text></section-header></section-header>	take great can conveyed from mals, by atter By proper dis immediately fo mature birth, f tion may be vagina of heife disinfected for after breeding u The genital on should also be y ervice. Thirty mate to one ga fectant common should be heat before using be used duily of womb is about should be inject It is advisable hind quarters of daily. It is pro- cow that his a months, and the known to be By taking court the disinfections it is possible to

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THE FARMER'S ADVOCATE.

Questions and Answers. Miscellaneous.

Smoking Meat.

How long should the meat (hams and shoulders) remain in pickle before it is smoked?

2. What is the best method of «moking meat?

3. How long should it be left exposed to the smoke?

4. Is a milk-house a good place to keep it after it has been smoked?

5. What is the best preparation to rub on cured meat, or on the bag by which it is suspended? F. S.

Ans.-1. It is advisable to rub the meat a couple of times with salt, then place in a brine for three or four weeks. Any small building may be used 2. 2. Any small building may be used and the meat suspended by cross-bars or hooks from the top. The fire-box may be placed in the centre of the building or built outside and the smoke admitted through a flue. For a small quantity of meat an ordinary barrel may be used as a substitute for a smoke house. Hickory, birch or maple wood may be used for smoking the meat. Corn cobs are often used. 3. If the fire is kept going con

3. If the fire is kept going con-tinuously, three days should be suffi-cient. When the fire is lit only during the day it requires about twice as long to smoke the meat properly.

4. The milk-house will be a suitable place if it is cool, dry and fairly dark.

5. Smoked meat has been kept satisactorily by wrapping it in sheeting, and then dipping it in thick whitewash ontaining glue.

Effect of Silage on Cows' Teeth— Contagious Abortion.

If a man started to work on the 29th day of December, when would he have two months in? Also if he -tarted on the first day of January, when would he have two months in?

2. What is your knowledge in reards to silage destroying the cat-tle's teeth? I heard a drover say that he saw good young cows on the Toronto market without a tooth from the effects of eating silage.

3. I have had some trouble with my wo-year-old heifers. They abort at from three to seven weeks. One cow and four heifers have aborted. Is there any preventive for this trouble? W. G. G.

Ans.-1. Hiring by the month, twenty-six working days comprise a month. When a man hires for two months and commences work on the 29th day of December, his time would be in on the evening of February 28. Commencing January 1, he would be required to work January and Febru-ary.

2. Good silage is not believed to have any detrimental effect on the teeth of the animal to which it is fed.

Evidently the herd is affected with contagious abortion, which is a stubborn disease to combat. The usual treatment is to isolate all aborted cows, burn all foetuses and afterbirths, and take great care that infection is not conveyed from diseased to healthy animals, by attendant or stable utensils. By proper disinfection of the females immediately following abortion or premature birth, future sterility and abortion may be guarded against. The vagina of heifers and cows should be disinfected for a period before and after breeding until conception is assured. The genital organs of breeding bulls should also be washed prior to and after should also be washed prior to and after ervice. Thirty grains of corrosive sublimate to one gallon of water is a disin-fectant commonly used. The solution hould be heated to 100 degrees Fahr. before using. The disinfectant should be used daily on the females until the womb is about closed, then a little hould be injected daily into the vagina. It is advisable to disinfect the tail and hind quarters of all pregnant cows once daily. It is probably wise not to breed a cow that h aborted for at least six months, and then use a bull that is known to be free from the disease. By taking every precaution regarding the disinfecting of both stable and herd, it is possible to control the disease.

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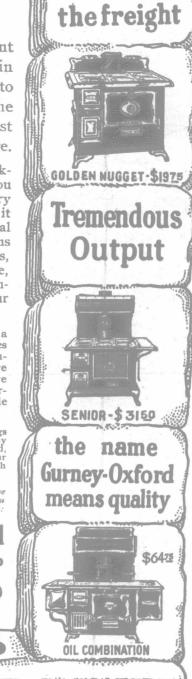
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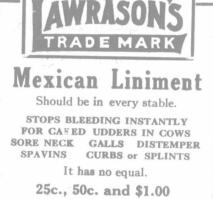
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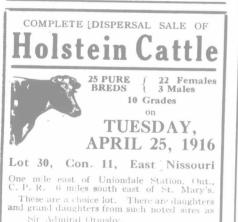
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THE FARMER'S ADVOCATE.

Lightning Rod Protection. An insurance authority, in speak ing of the fire losses of April last, said: "Lightning has caused considerable loss during the month, especially throughout during the month, especially throughout central and eastern Ontario and western Quebec. On the 25th and 26th of the month, 34 barns and nine dwellings were damaged in Ontario, and on the 27th, 18 buildings were struck in the province. of Quebec. If enquiry were made it would doubtless be found that none of these buildings was rodded. When it is remembered that lightning loss upon farm property in Ontario and Quebec costs the insurance companies well over \$400,000 a year and that losses not covered by insurance probably amount to an equal or even greater sum, it seems strange that farmers do not more generally adopt so simple a means

of protection as the lightning rod.' Much has been said and written of recent years as to the value of lightning rods as a means of fire protection. This question has especially interested insurance companies, who have to provide for the primary loss. When, however, insurance officials make such statements as that quoted above it is apparent that only a small part of the ultimate loss is borne by them. Farmers, especially in eastern Canada, are paying this loss. True, the insurance companies collect the money from a large number and pay it over to those who suffer from lightning, but the farmers pay the price, as well as the cost of making the collection. The heavy loss by lightning must be provided for through an increased premium paid by farmers for their insurance. It is therefore ad-visable for those who must pay this heavy charge to take precautions to protect property.

The data collected by United States Farmers' mutual fire insurance companies demonstrated that lightning is one of the principal causes of fire in rural districts

Canadian farmers' mutual insurance companies are also taking a great interest in lightning losses, and almost unanimously make a reduction in premium on protected risks.

In European countries, particularly in France and Germany, all public buildings are protected; school authorities insist upon lightning rods upon all school buildings.

With a very heavy fire loss in Canada, at a time when such wastes should be reduced to the minimum, some action should be taken to protect rural property against this destructive element.-Conservation.

Ouestions and Answers. Miscellancous.

Recipe for Tanning Hides.

What is a good recipe for tanning hides? A SUBSCRIBER. Ans .- Stretch the skin smoothly and tightly upon a board, hair side down, then scrape off the loose flesh and fat with a blunt knife. Work chalk freely in with hard rubbing. When the chalk begins to powder and fall off remove the skin from the board and rub in plenty of powdered alum. Wrap it up closely and keep in a dry place



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thanar Beauty" of the second s dgar Weld.

l'hree Pure-br 'ne cow eight year peauty; one cow thr 'resh; one bull calf lohn Polo''. Write ther information.

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E. A. SMITH, 486 Talbot St. St. Thomas, Ontario JERSEY BULL **Questions and Answers** Miscellaneous.

Layout of a Stable.

We intend building a barn this summer. I would like to get your advice on laying out the stables. The barn is to be 36 by 80 feet, with a 14 foot mow at the north end, and a 14-foot barn floor. The rest is for stables We plan on a 1-foot cement wall for foundation. We intend having sixteen cows on the west side facing the center and five single horse stalls, one box stall, and a granary on the east side, with a gangway in the center. 1. What length should the horse

stalls be, including the manger? 2. What width should the walk be

behind the horses? 3. What size will the box stall and

granary be? 4. What will be the width of the

gangway and cow manger? 5. What will be the length of the cow stalls?

6. What width will gutter and walk N. E.

be?

Ans.—The plan of the stable you anticipate building should work out fairly satisfactory. A stable 36 by 52 feet can be arranged to accommodate the amount of stock mentioned. Allowing 3 feet for each cow, there will be 4 feet left at one end for a passage-way. Five horse stalls, box stall and granary can be arranged on the east side of the stable. Twelve feet should be allowed for stall and manger. Six feet gives a fairly good width of pass-age behind the horses, but more room would be better. The box stall can be made 9 by 18 feet, thus leaving a space 18 by 18 feet for a granary Behind the cattle will be a $4\frac{1}{2}$ foot passage and 1½ foot gutter. The stalls can be made 5 feet long, the manger 2 feet wide, and 5 feet will then be left for feed-room. This arrangement allows for no waste space, and sufficient room is left for a passageway both in front and behind the stock.

Meat Food for Hens—Rations for Calves.

1. Will it do hens any harm to eat all the Meat Meal they want from a self-feeder or is it better to feed meat food in a mash? Is it as good a meat ration as beef scraps? What causes hens to lose the use of their legs?

2. What is the best feed for young calves? Is oil-cake meal good to feed in the calves' milk and if so how much at a feed? 3. Do you think early tomatoes will grow as well and ripen as early

on black loam as they will on sandy land? 4. Do you think that land will fall

in price after the war? J. T. Ans .--- 1. A tertain amount of meat

food is necessary for hens during the winter months. The hens may not eat more than they require if allowed to secure the supply from a self-feeder, but it is doubtful if this method is economical with all breeds. The amount for each bird can be governed when feeding meat food in a mash. Some poultry-men prefer one kind some the other. Rheumatism, caused by exposure to cold or dampness, may cause fowl to

lose the use of their legs. 2. Whole milk is the

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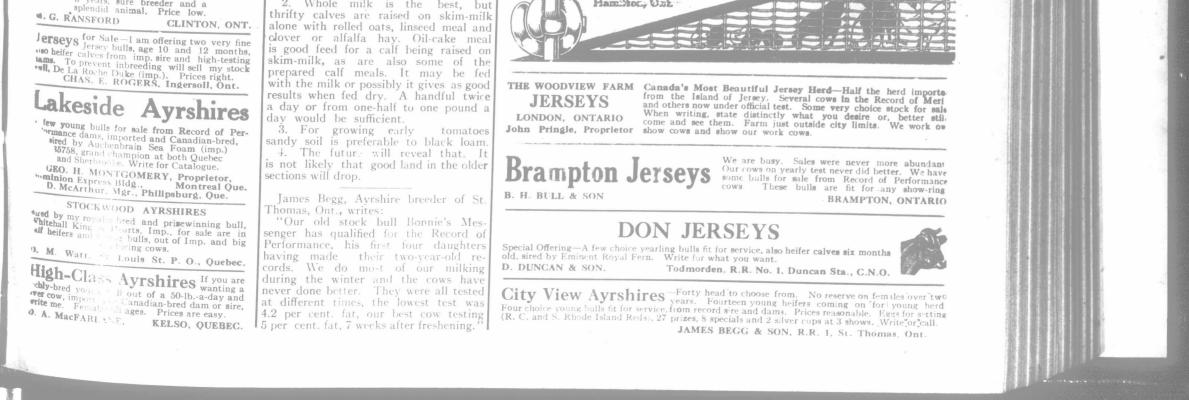
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Ouestions and Answers,

Miscellaneous.

Trespassing Bull.

1. A and P. have adjoining farms A's pure-bred Bull while out for wate at noon hour breaks over and gets with B's heifer. Can B collect damages whether B's heifer gets with calf or not 2. If so, if a year has expired and B has not claimed damages can be do so then, or how long after? OLD SUBSCRIBER. Ontario.

Ans.-1. B has a right of action for the damages, if any. He might have difficulty in proving damage. 2. Yes; he would have at least another year.

Harvesting Mangel Seed.

Will you let me know, through the columns of your valuable paper, how to harvest, thresh and clean mangel seed? SUBSCRIBER.

Ans.—When growing mangel seed in a small way the seed may be stripped from the plants. As the seed does not mature uniformly, the ripe seeds may be gathered early in September, then later in the month the late-maturing seeds may be gathered. When growing seed on a commercial basis the plants are usually cut when about two-thirds of the seeds are turned brown. The plants may be placed in small stooks, and when dry may be threshed with the ordinary grain thresher. The ordinary fanning mill can be used for cleaning the seed. It is important to collect the seed before it is injured by frost. Two or three degrees of frost will injure the germination.

Cement Floor For Hog Pen.

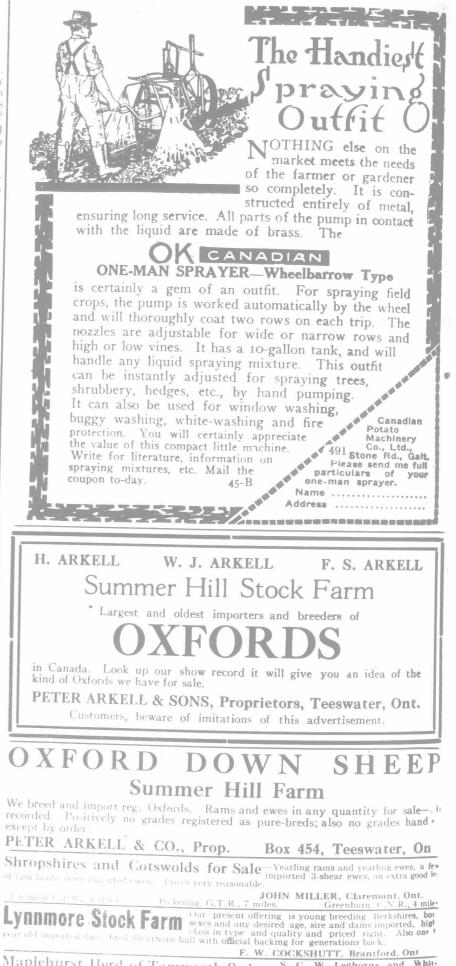
1. How much cement, sand and stone or cement, gravel and stone will be required to floor a log hog-pen 151 feet by 16 feet 8 inches? Sleepin apartment to be 6x6 feet, raised 6 inches above floor, with 2-foot wall, on four sides. Wall to be 5 inches thick. There will also be a wall 6 inches high, for both sides of trough and around either way to sleeping apartment. The total distance from trough to sleeping apartment either way will be 32 feet with out wall or trough.

What proportion of cement, sand and stone will we use, or, in using gravel instead of coarse sand, what will be the proportion of each?

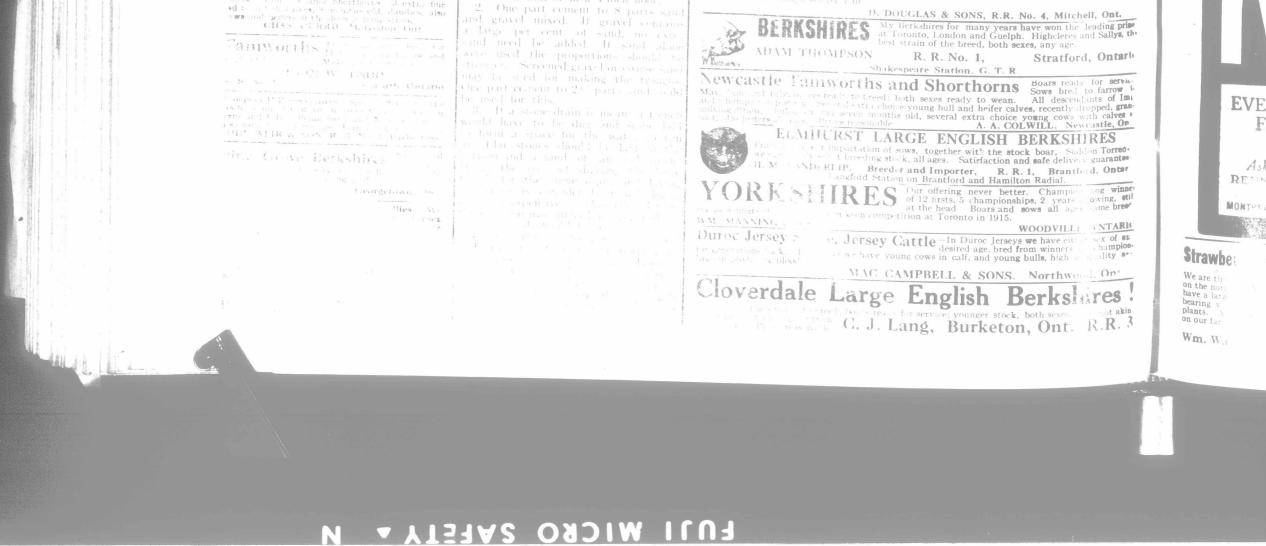
3. The land has a slight slope and is more or less springy. How should stone be put in to allow of as free circulation of water as possible? The distance is too far and means insufficient to do both concrete work and

laying tile 4. Have seen hog-pens made of cement and gravel, that were rooted out. Will you please state your opinion as to what was the matter with con C. M. T

Ans.-1. A layer of stone may b Ans. 1. A layer of some may be put in as a bottom for the concrete About 3½ cubic yards of gravel and sand and 3 barrels of cement will be required for the floor. The sleeping apartment, walls and troughs will re-quire about 2 cubic yards of grave and sand, and 112 barrels of cement 1 would not be advisable to use stone a five-inch wall or in a 4 inch floot.



Maplehurst Herd of Tamworth Swine, S. C. W. Leghorns and Whit-per cent of the przest decree in the last ten years at the Canadian National, Toronto, Ottaw, Lendon in the Gaselon Wither Fair





VPRIL 20, 1916

Vol. LI

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