FARM AND DATRY, RURAL HOME,



Toronto, Ont., January 10, 1918





PRESENT-DAY RAPID TRANSIT DEMANDS SWEEPING CURVES AND CLEAR LOOKOUTS IF ACCIDENTS ARE TO BE

AVOIDED,

—Photo shows an easy curve on a road in Welland Co. Ont.

The House of Holstein

Are Its Foundations of Sand? Page 3.

Letting in the Sun

Sam Ray Makes His Debut. Page 2.

The First Six Months

Giving the Calf a Start., Page 4.

Ontario's 1918 Road Plans

Organizing for After the War. Page 5.



"The purchase of a steam roller is too often delayed -- The cost of a steam roller is by no means an additional expense, since rolling effects economies in several ways. "

The Government Report on Highway Improvement

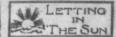
used by 150 corporations, municipalities



Gilison Engines have long enjoyed an indiputable reputation for depends billity, power, simplicity and economy. This year finds us with an even more attractive power by the control of th

GILSON MFG. CO., LIMITED, 257 York St., Guelph, Ont





On Getting Started

T is the beginning of a new year, and I have resolved (if the editand I have resolved (it the con-ors of Farm and Dairy are will-ing) to start a series of chats with you, my neighbors. I think that we you, my neighbors. I think that we on the farms need a bit of sociability. We need something to take the place of the old tunking bee. And its logical successor is the farm paper. I don't know what subjects our chair. may embrace, but I warn you that if you are after boiled down information you'd better arrange to skip my chats you'd better arrange to akip my chata — if, on the other hand, you over feel you'd like to talk of "saips and sails and sasiing wax, of cabbages and kinga" just for the sake of talking, just to take you'r mind off your work for a moment of retassation, then I infor a rement of retaxation, then I in-vite yea to drop in every chance you get and pass the time o' day with me. My friends, if you ever feel a de-sire to break into print for a living, take my advice and prussic acid. It is

a faster method than starving to death. Besides, you will be saved the worry of making a start. That's the worry of making a start. That a long time you sit and stare at the looking for a title for your first wall, looking for a title for your first article, story or noom, as the case may be. Strange as it may seem, no title projects itself from the afore-said wall. Then you look out the window—same result. You try train-ing up and down the kitchen floor. and you accidentally step in the spot where the cellar door is when it to down

it is down.

But to-night I got an inspiration.

I suddenly thought of the spare room
at Aunt Mary's. She keeps the
blinds down to preserve the wall blinds down to preserve the wall along during the winter senson and sleeps in the dempness of the spare room should count himself lucky if he escapes with bronchitis. he escences with bronchitis. Usually they take posemonia. The trouble is Aunt Mary doesn't let the sun in. The same applies. I think, to many of our efficient. They put too much "shop talk" between the covers of their papers, or rather too little of the type of reading that takes our readers, here, they have been the papers. the type of reading that takes our minds away from the worries of tuberculosis in the pure-bred herd or black head among the turkews. So I'm going to try to let a little light into the heavier reading that Farm and Dairy supplies through its various departments. And choosing the title

departments. And choosing the little
"Letting in the Sun" gave me a start.
The difficulties of getting started
seem to be many, not only in writing but in any new phase of activity in which we may engage. You've got to pluck up your courage and plunge into a new venture whether it be litera-

ture, how or good roads, the way you did the fact time you went swimming.

And speaking of setting started in good roads—I remember a big white stone that used to protrude from the road opposite our farm. Every right came along bummed that stone Every ris for it was well centred in a rather narrow road. How much mud was knocked off burgy and wagon wheels by that stone. I would not venture to say, but for 40 years the wheels struck against it. Careful drivers slackened speed when the stone hove in sight Always at road-work time the path master talked of blasting it out, but this was never done. Always good earth was drawn to this stone and it was given a decent burial, but always during the next heavy rain the good earth deserted and ran down hill, and

the stone resurrected tiself.

But one day while we were preparing for the annual interment of the white stone, an hoary patriarch came by and stopped to chat. He'd been away from these paris nigh onto 40 year, he said. In the course of his cominiscences he remarked that he

ad drawn that identical stone to its had drawn that identical atoms to he present place to fill a hole in the road when he was path master, way back in the cobweight past. He said it as if 'twere something to be proud of—

It were somewhing to be ground of— what recked in of the scores of tires that had been loosened by it? After we'd provid somewhat from the shock; this me, we dug about the white stone, hisched on a chain and with one team of horses drew the stone from its resting place. And now memorate the stone of the stone from its resting place. it stands by the fence, a monument to the difficulties of making a start in any good roads

Sam Ray

Milk Distribuion Charges HE formal order-in-council regulating the spread in milk prices lating the spread in mink prices between producer and consumer, which came in force January first, reads as follows:

first, reads as follows:

1. That from and after the first day of January, A.D. 1918, and until further notice, milk distributors shall not charge more for milk sold by them than the actual cost of the milk delivered at their premises, and, in addition to such cost, on milk sold in the Preprises.

ovinces of-					/CII su
				per	quar
British Columbia		***	ş	34	5.25
Alberta		660	9		5.25
Saskatchewan		Timo	i,	Car.	5.25
Manitoba	***	***		**	5.25
Ontario			3		Ь,
Quebec,		43.4			D
Nova Scotia	***		9	44	5.
New Brunswick	116	14.4.4			0.
P. E. Island		266			D.

a higher price for milk than the price the milk distributors charge the con-sumers in the locality in which such

retail dealer is carrying on business.

3. That if the cost of distribution is 3. That if the cost of distribution is increased when or order wins, and other price of haber or otherwise, any distributor affected thereby may submit order of the control of the contro

That no distributor selling milk in a locality where the amount paid at the present time to distributors is less than the maximum amount herein pre-scribed shall increase such amount without first obtaining the written con-sent of the Food Controller.

A Hog Production Move

HE Hamilton Board of Trade THE Hamilton Board of Trade are planning to provide a small pile for every undischool boy in Wentworth county if he wants it. Members of the board are being saked to subscribe to a fund to be spent in purchasing brood sows. These sows are to be kept by members of the agricultural section of the Hoard of Trade until the litter arrives. The sow can then be sold for more than enough to pay the farmer for the trouble of keeping her. Each school boy will feed his plu until eight monthe old, when it will have an actimated value of 35. The lad will then be required to bay The lad will then be required to pay for his pig and the Board of Trade mentions, who subscribed to the original fund, will be repaid. All they original rand, will be repaid. All taley will be out will the interest on \$10 for one year. This is only one of many schomes that have been launched throughout Canaca to assist in the greater production of perk.

> MORE HOMES WANTED. Homes wanted in good Ro-

Homes wanted in good Ro-man Cath ic families; premis-ing children; twin girls seven years, boys three to five years. Homes west of Peterboro desired. For information write Hugh Ferguson, Stratford, Ont.

TORONTO, ONT., JANUARY 10, 1918

No. 2

"The House of Holstein" - Are Its Foundations Secure?

A Criticism of the Short Term Record by One of the Breed's Best Friends - F. H. Stevens in the Holstein-Friesian World

E read in St. Matthew, chapter seven, twenty-fourth to the twenty-eighth verse, of two housebuilders, one of whom builded upon a suck and the other upon sand. We all know the rock and the other upon sand.

Is our short-time official record a foundation of

The growth of the Holstein-Friesian cow in popu harty has for the past 25 years made history unpre-cedented by any race of domestic animals. This popularity has had as its foundation the seven-day popularity has had as its foundation the seven-day test, and in view of the past achievements it might at first thought seem unwise to consider moving our

at first thought seem unwise to consider moving dar Holstein structure from this foundation. For more than a decade, each year has seen added For more than a decade, each year has seen added to the membership of the Holstein-Frieslan fraternity dozens of wealthy men who have taken up the breed-ing of Holstein cattle as a fad,

an accessory to a country place, or from the sporting spirit which causes other men to take up the breeding and developing of the race horse. Doubtless, in nearly every case, the matter of financial gain is also considered, and also in nearly every instance these ventures been a success from a financial point of view. These breeders arways have the worthy ambition to become leaders in heir tion to become leaders in their new field, as they nearly always were in their business, and, be-lieving the old adage that like begets like, they are willing to pay the ever-increasing prices for the descendants of the largest record animals.

A Graze for Seven-day Records.

This demand for the extreme seven-day records has naturally made its own supply. We have learned if a cow isn't required to do too much throughout the year, she will, at fresh-ening time, take from her stored. up fat and energy and make phenomenal records for a short period of time. Expert hand-ling and feeding have been involved and 30, 40 or even 50 pounds per week records have followed each other so rapidly as to leave the mass of Holstein rapidly Friesian breeders in amaze, See. ing the financial success attending the remarkable achieve-ments of the few, the breeders have, generally speaking, fallen in line, with more or less successful endeavors to keep in the race until I fear the real dairyman, whose business is to dairyman, whose business is to make milk continuously at a profit, has been lost sight of. How long will such methods endure? Already we are hear-

ing our great seven-day records talked of disparagingly There is no question among intelligent men that the accuracy of these men that the accuracy of these records is not safeguarded in every conceivable way, and with possible rare exceptions they are correct, but even so their real value from an economic point of view is questionable. Aren't we building our Holstein-Friesian house upon the sand? Will there not come a time when the buying public will demand more than a seven-day record, and when our present basis of value will be swept away and must be replaced by long-time pro-

Real Measure of Dairy Ability.

Almost any breeder now is realy to admit that Almost any breeder how is ready to admit that the long-time production is the real measure of the dairy cow's value, but as long as the buying public dairy cows varies, but as long as the buying public is willing to pay the money for the short-time tests and not seemingly willing to let long-time records enter seriously into their calculations, just so long will most breeders work for the immediate di-rather than for the future welfare of the breed. the immediate dollar

I believe the officers of our association should make

great the incentive for long-time tests, and the great-est and most far-reaching incentive would be to evolve some system whereby the cost of making these tests would be greatly reduced. It would seem that this work could be supervised after the present that this work could be supervised after the pres method of the cow testing association, and so what reduce the cost of inspectors. It might method of the cow testing association, and some-what reduce the cost of inspectors. It might be advisable to offer money prizes for yearly herd records in which every milking member of the herd would take a part and would in that way get a

What would doubtless arouse even more interest would be a futurity, for sires, classified as to ages, two-year-olds, three-year-olds, and so on, It might be well to make these futurities not only for the individual animal, but for groups of five, ten, or

perhaps even more daughters of the same sire in the same age divisions.

divisions.

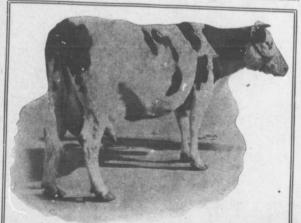
I can conceive no greater honor for any sire than to have ten of his daughters make more mills and butter in a given year than the ten daughters of any other daughters are and other daughters and daughters are daughters and daughters and daughters are daughters and da

The Dairy Farmer's Problem.

The problem of the dairyman The problem of the dairyman is becoming each day harder to solve. His produce goes largely to a class of people who must problem on it as a cheap food, and no matter what the cost of production may be there or production may be there is a limit to what he can sell it for. His labor is continually advancing in cost, as are also the feeds for his cattle. Through ducts of the distillery are unducts of the distillery are day available, and the proposed enactment of the coming legis-lature will also very likely remove from the market brewers' dried grains and malt sprouts, so dried grains and malt of our former tonnace of high protein by-products will no longer be available. This, or course, will tend to greatly occurse, will tend to greatly offers to the property of the property of the graining. We as Holstein-dried to supply the dairyman with each of the production, for he long-time production, for he must have animals of this class in order to survive. dried grains and malt sprouts, so in order to survive.

I am not sure but it would be the part of wisdom with the future of our breed in view to entirely abandon the seven-day test. Very likely this would react to our immediate disad-vantage. "A moving house in not a comfortable habitation."

But the long-time production is the rock upon which the foundation for the permanent success of any breed of dairy cattle must be built.



Zarilda Clothilde 3rd DeKol, World's Champion Milk Producer

THE world's championship for milk production now comes to Canada. of the new champion may be seen above. Her home is the Colony Farm, Essondale, B.C., where she made her great record. When forwarding her photo the farm superintendent, Mr. P. H. Moore, could send her official record for only 330 days, as certificates for the last 35 days had not been returned. The tester's figures, however, are given for this neriod.

7 30 60 90 120	days'	milk		831.31 3,331.7 6,718.0 9,940.5 13,009.8	lbs.	Butter " "		233.96	lbs.	Strictly	Official	
150 180 210 240 270 300 330		" " " " " " " " " " " " " " " " " " " "	***********	15,900.7 18,572.4 21,031.2 23,260.0 25,292.7 27,277.7		" " " " " " " " " " " " " " " " " " " "	· · · · · · · · · · · · · · · · · · ·	442.28 544.58 638.48 725.32 806.11 878.43 950.28		" " " " " " " " " " " " " " " " " " " "		
365	"	"		28,902.9 30.469.2	"	4		1,010.42	**		" Figures	

S there any relationship between high feeding and Is intere any relationsmy between man recently and failure to breed regularity? Do some feeds according to the reproductive organs? Mr. J. Meradith, a United States dairyman and writer raises these questions in a recent is sue of "The lowa Homestead." He writes as follows:

"On many dairy farms, especially where large quantities of purchased concentrates are fed, com plaint is common that many of the cows fail to breed regularly. This complaint is becoming more comregularly. This complaint is becoming more com-mon from year to year, and is making serious inroads on the profits of dairy farming. This 'nability to withstand heavy grain feeding and breed regularly means that some of the cows must be bred several times before becoming safe with calf. The result is some of the cows freshen at the least favorable is some of the cows freshel at the base of the time, thus cutting down the supply of milk when most needed to keep up even production, and causing a general upsetting of the farmer's plans for the year. In extreme cases abortion and sterility not only sweep away the profits, but ruin the herd for profitable dairy purposes.

Feed for Long Life.

"It is high time that farmers began to practice methods of feeding dairy cows so that they will field longer, instead of feeding them to get the most milk.

By far too radical methods of by far too radical methods of feeding are being advised by those who assume to be feed-ing authorities. It is wrong that so many dairy experts have divorced science from common sense in giving scientific advice along lines But the most disof feeding. But the most dis-couraging thing we have to contend with is the fact that so many farmers are w to let these experts do their thinking for them instead of looking at the problem in re-lation to the health of their

"It is not my intention to discuss the problem of feed-ing from the standpoint of veterinarian or scientist, but to present a few plain facts that seem to have a bearing upon the question of maintaining the breeding qualities of our dairy cows. In the first place, the failure to breed regularly ig more common where heavy rations of protein by-products are fed.
Many dairy experts explain
this fact by arguing that
great producing cows convert

so much of their food into milk that their reproductive organs are very poorly must that their reproductive organs are very poorly nourished. This condition, however, is unquestion-ably the result, in great measure, of improper feed-ing, so that the whole question resolves itself into one of improved methods of feeding.

Feeds That Are Injurious to Production.

"Unfortunately for the dairy farmer, the feeds that possess the greatest amount of protein are the very feeds that possess the least power in nourishing the organs of reproduction. It can be further ing the organs or reproduction. It can be further stated that some of the feeds that possess extra-ordinary power as milk producers are positive poisons to those organs. Witness the milk-making value of cottonseed meal, then witness the cows that have been fed upon it to the point of barrenness Cottonseed meal contains, when at its best, a medicinal agent which acts directly upon the uterus, and when fed to cows that are large producers it is likely to assist in producing an abortion. The fact that so many good producers abort after carrying their calves up to seven or eight months is a pretty good indication that it is not germ abortion. There are other feeds that have a similar, though less pro-nounced, effect. Such foods are very rich in protein, and, while they have a place in the economy of feed-ing dairy cows, they must be fed along with other feeds that counteract their evil effect and furnish an abundant supply of nourishment for the reproductive organs.

organs.

"An even worse mistake than feeding too much rich protein feeds is that of taking the grain rations away from the cows suddenly and not feeding them enough of anything to properly nourish the growing fetus. Such a practice dwarfs both the milking and breeding qualities, entailing a double loss. It is between these two givenumes that we find a safe and tween these two extremes that we find a safe and profitable system of feeding that provides an abundance of food that contains less protein, even though ance of food that contains less protein, even though a perfectly balanced ration for producing milk is not used. In carrying out this plan, oats, bran, corn, clover, and alfalfa hay and silage play an important

It is time that dairy farmers heeded the signs of the times and followed the rules of common sense in feeding their cows. When we have a good cow we should strive to feed her and care for her so that her vigor and reproductive powers will be main-

For the First Six Months

Suggestions on Calf Feeding and Management

ALF-RAISINC is a fundamental part of the dairy industry. The performance of the mature dairy cow bears a relation to her development during the calf and heifer periods of her life. A circular which is being distributed by the U. S. Department of Agriculture among creamery patrons review of the property out that the small amount of whole milk being points out that the small amount of whole milk being fed to calves at present makes the problem of raising much more complicated than formerly.

creular gives the following advice to dairymen:
"Immediately after birth the navel of the call
should be washed with an antiseptic solution and
tied with a silk thread in order to prevent infection. ties with a size thread in order to prevent indection. For the first feed the calf should have the first milk from the cow after calving and should have its mother's milk for several feeds thereafter. The sooner the weaning takes place the better, but ordinarily it should not be postponed later than the



A Sr. Four-Year-Old Ayrshire Cow with Three Yearly Records. This is Willamoor Happy Girl C, owned by J. W. Clise, Redmond, Wash. She has just completed her third term in Advanced Registry with 16,478 lbs. of milk, or ontaining 850 bbs. of fat. Her three years official production averages 12,189 lbs. of milk and 465,32 lbs. of butter fat as immature records. Further records of this cow will be found far there back in this issue.

fourth day. The sooner the calf is weaned the more easily it is taught to drink. When first fed from the pail, 8 or 10 pounds of milk a day, fresh from the pail, 8 or 10 pounds or mins a day, fresh and warm from the cow, and divided into two feeds, are sufficient. The feeding times should be as nearly regular as possible, and at first it is advisable to feed more than twice a day. The quantity fed should be constant, to insure which scales should be used. as variation tends to get the digestive organs out of order. At all times the utmost care should be taken to prevent any digestive disorder, as all such trouble hinders the growth and development of the animal. Calf scours is the most common indication of this

"The following named precautions, to a great ex tent, tend to prevent scours: Feed regularly. Be sure that the milk is always sweet and warm. In feeding use only clean pails. Feed the calf a little less than it wants. Reduce the quantity of milk one half if the animal becomes sick.

"The quantity of milk fed can be gradually increased until at the end of the second week the calf receives from 14 to 16 pounds of milk a day. At this time the gradual substitution of skimmilk for whole time the gradual substitution of skimmilk for whole milk may commence. Hay and grain should be placed before the call at this period, and it will be found to nibble at them a little. At the end of the third week the substitution of the skimmilk will be complete. By slow changes the milk can be increased thereafter until 20 pounds a day are fed, which will be found sufficient when fed with first and hay. It skimmilk is plentfull more any be fed, but the addition will not give proportionately be better results.

"Corn meal, bran, and oil meal, mixed in the proof three, two, and one, make an excellent grain mixture. grain mixture. This grain when red win pienty or fine clover hay makes an ideal supplement to skim-milk in balancing the ration. Calves should be allowed all the grain that they will eat until they consume 3 pounds a day; from this point the feeder

should use his judgment as to whether an increase is justified.

"The calf, from the time it is two weeks of age, should always have access to plenty of clean, pure

water.

"The general practice is to feed calves skimmilk for from two to six months. In the latter case, with fall calves the time of final weaning from milk comes in the spring, when pastures are ready. Under this avstem the calves usually make excellent growth Under this during the entire period without any break in gains.
"Careful attention during the first two weeks often

means the difference between a sickly, undersized, stunted animal and a large, well-developed one when it enters the herd as a milking cow."

Should Dairy Bulls Be Tested

A Four Years' Wait to Ensure Results

M OST practical dairymen now realize the advan-tage of breeding to a tried bull—one that has proved his power to sire high-producing daughters, says a bulletin from the Utah Experiment Station. Just what performance these daughters must attain before a bull is considered good in practice, is very indefinite. A bull whose daughters are uniformly above the average as producers is the bull uniformly above the average as producers is the bull which usually, and rightly, attracts attention. Another bull may be the sire of one phenomenal groducer and a large number of rather inferior cows. Such a bull is a good one for the average dairyman to shun. There may be a certain tempitation the duplicate the extreme production of the one cow; but the odds are too much against this for him to gamble for this end.

The fact immediately arises that at some period even in each good bull's life he was an untested sire. even in each good buils life in was at unesseed since. This is very true and someone had to give him a chance to prove himself. There is always a certain risk in breeding to an untried bull. The chance to measure his value is necessarily delayed not only till the particular helfer is born, but till she in turn till she in turn and the contract of is bred and comes into milk. Even then, anything but a complete lactation record is not a good standard from which to draw conclusions. All told, then, it takes the better part of four years to measure the value of a bull. value of a bull. In that length of time this bun could have sired five crops of calves, thus completely making over the herd upon which the owner must depend for future profits.

The seriousness and lasting effects of such a move The seriousness and lasting effects of such a move suggest that great caution should be employed. The careful method of testing out a new bull is to breed him only to a few older cows of known breeding capacity, then hold him in reserve, using him only when absolutely necessary, till the results of this first trial are completed. If the majority of these first helfers prove to be salisfactory producers the bull could then safely be used generally in the herd, if not he should be discarded.

Selecting dairy bulls upon their record as breed.

Selecting dairy bulls upon their record as breeders is more certain to result in improvement in dairy cattle than selection either by ancestry or confor-

Will Cattle Eat Sweet Clover?

P OSSIBLY no other plant has been more the subject of dispute as to its economic value than white sweet clower. That it will produce heavy crops of hay is admitted by all. That it possesses much feeding value for all animals that eat it is also universally acceded. That it is a comparatively hardy crop is attested by the fact that it will frequently resed itself and live in the same apot for years. That it has possibilities as used fighter is accorded by those who know its vigor of growth. But as to whether it is sufficiently palatable to cause animals to eat it—that's the question.

The Mantplah Arricultural Colleges has been exject of dispute as to its economic value than

cause animals to eat it—that's the question.

The Manitoba, Agricultural College has been experimenting with this crop, and they are now able
for say that their cattle have both been pasturing
upon it and heartily esting it as hay. The advecates of sweet clover contend that many animals
must acquire a taste for the plant, and after, that
they are fond of it. This seems to have been the
experience at the college this year, and another, area
field was an area of a sarky among an another, area
field was an area of a sarky among the cattle was of alfalfa. During the early summer the cattle past tured down the alfalfa but scarcely touched the sweet tured down the alfalfa but scarcely touched the sweet clover. The latter was then cut for hay. Later, in the season the alfalfa was short in growth and the green second growth of sweet clover was attacked by the cattle, with the result that after they had acquired the sweet clover habit they pastured, con-tinuously upon it for the remainder of the season. Whether or not the same cattle will est sweet closer whether or not the same castle with the square avidity next spring will be watched with interest. The college has never had any difficulty in having animals eat the sweet clover hay. It may be an interesting statement to add that the particular patch of ground used to grow this sweet clover was an unsatisfactory plot that had refused to grow grain and corn, and was sown to sweet clover in an effort to find some crop that would succeed.

Ontario Good Roads Plans for 1918

An Efficient System of Maintenance Should Be Established to Conserve What Roads We Have, and an Organization Perfected to Prepare the Way for Greater Development After-the-War W. A. McLean, Deputy Minister of Highways y. A. McLean, Deputy Minister of Highways
pavements at hish expense—but rather as a means
of economy and more equitably distributing the cost.
This organization is included for roads carrying
heavy international and the for roads carrying
heavy international and the formation traffic,
such as local municipalities vary traffic be expected to
provide for. As this heavy traffic be expected to
provide for. As this heavy traffic be expected to
the such as local municipalities and the province of the contribution should be made from the motor vehicular to
as with county roads, a place of efficient under
ance and gradual development, can be applied, the
summary paid for from annual revenue. When
a traffic comes so great at any point that maintenance of the comes as great at any point that maintenance of the comes as great at any point that maintenance of the comes as great at any point that maintenance of the comes as great at any point that maintenance of the comes as great at any point that maintenance of the comes as greater and the foundation with a compared during the year to
employ permanent road suped during the year to
e

Two outstanding duties now resting upon the people of Canada, and the British Empire, are:

o win the war and to prepare for probable conditions, social and economic, after the war. Robert of mprovement in Ontario at the present time comes under the latter duty-preparedness for conditions after the war. Batter duty-preparedness for conditions after the war has a public work, in which much employment can be selven, it can be made to do a useful service in the present time of the properties of the present time of the present time of the present time of the present time the present time of the highest order, and will return the expenditure of the highest order, and will return the expenditure of any fold in the progress of Canada.

Bad roads are a badge of primitive conditions, and

many fold in the progress of Canada.

Bad roads are a badge of primitive conditions, and
retard effort to bring spreadured all occupations—
thereby reacting on the progress all occupations—
thereby reacting on the progress as whole. Half the time wasted it deving through
bad roads or spent in idleness because them, if
properly applied, would bring the roads or
to a surprising state of excellence, and still leave a
good margin.

cood margin.

Despite present labor conditions, the repairing of Despite present labor conditions, the repairing of roads, shey now exist, should not be neglected. Neglect shey now exist, should not be neglected. Neglect shey now the same that involve a proportionate expenditure for reconstruction. The scarcity of labor demands, not that the roads of the same that time be saved by keeping them in repair. For the same be saved by keeping them in repair. For the same reason, construction of an urgent kind should be carried on, but the present time, with scarcity of labor and high wages, not favorable to extensive works of construction.

The efforts of the Ontario Highway Department

works of construction.

The efforts of the Ontario Highway Department will, therefore, in 1918, as during the past year, be turned toward the extension of road organization such as can be made effective after war, when it will not only mean a step in real national development, but will also give much needed employment and have a steadying influence on the labor situation. This does not mean that, following the war, large bond issues will be necessary to carry on a hugh policy of road construction. On the contrary, present-day organization for maintenance, with propresent-day organization for maintenance, with pro-

war, large bond issues will be necessary to carry on a hugh policy of road construction. One contrary, present-day organization for maintenance, with provision for such construction as in the pay-as-you-go principle, will permit a proximate of construction after the war, to which the same respect of finance can be substantially extended. Finance can be substantially extended the same respectively of the highway laws of Ontario, the Surge a review of the highway laws of Ontario, the Surge a review of the highway laws of Ontario, the Surge a review of the highway laws of Ontario, the Surge a review of the highway laws of Ontario, a law of the surge of the highway laws of Ontario, a review of the highway laws of Ontario, a respectively of the surge of the highway laws of Ontario and Province, with "joint control, has been set of the surge of Ontario has arrived earlier at the "Province of Ontario has arrived earlier at the "Province of Ontario has arrived earlier at the "ning with statute labor, as this country did, the "Province of Ontario has arrived earlier at the "goal of equitable highway finance. The example, in lab broad lines, is one which might well "be considered with a view to "the adoption of "a similar plan in the Mother Country." his endorsation is exceedingly encounsing to see who have sought to perfect the organization for



faile this highway in Mariposa township is now nunty road, it was put in its present state of excellen while still under the township road superintenden

road improvement in Ontario, and justifies the faith road improvement in Ontario, and justines the rain that efficiency, coupled with equitable distribution of cost, will result. In considering this organization several facts should be kept in mind, important of

kept in mind, important of which are: 1. That roads must be built and main-tained in proportion to traffic-penditure being in like ratio. 2. That, as laid out in Ontario, about 20 per cent. of the roads will carry 80 per cent. of will carry 80 per cent. of the traffic. 3. That experi-tine traffic. 3. That experi-enced and competent man-enced and competent manenced and competent management is a prime necessity if expenditure on them is to give, with economy, the desired re-sults. 4. That country roads, of direct benefit to roads, of direct benefit to the township are also of benefit to the towns and cities, and the latter should contribute in some degree. A study of recent road legislation in Ontario will show that none of the foregoing principles have been overlooked; and that a full measure of co-operation in giving effect to these laws, is justified.

To the present, thirty four counties of the pro four counties of the province have passed by-laws, creating county road systems. Only three county councils (Lambton, Durham and Northumberland, and Peterborough) have



ham and Nortnumberiano, and receroolough have not done so. Provincial aid to this work, when properly understood, is ad-

mittedly generous; to re-fuse this aid cannot be much longer justified in any county.

Ald to country roads is aid to township roads. Be-cause management is, for purposes of organization, transferred to county councils, the people of the township do not cease to use the roads—but with their improvement use them much more. The direct benefit is to the townships. With adequate provision under county management for roads of management for roads or heaviest traffic, radiating from towns, villages and shipping points, the task of developing the remaining township roads is, in the majority of cases, easily within the means of easily within the means of township authorities— when such means are efficiently applied. Provincial highways.

highways, such as proposed in On-tario, are not intended as a means of constructing extravagant system of

-Photo taken in Frontenac year to year. Roads should be drained as farms are drained—with drains of ample capacity, having a constant fall to a free outlet, and no pools of water resting on the roads or along the roadside. Poor drainage is still a sin of omission.

Some of the more elementary principles of road improvement are still continually disregarded by pathmasters and road commissioners, with the result

that much well-intended effort is thrown away from

age is still a sin of omission.

A serious sin of commission is in the use of the grading machine, in the treatment of old gravel roads. Annually, many miles of old gravel roads are rulned by using the grading machine to draw earth and shoulders from the shoulders to the top of the gravel, so as to "crown" the road, a miportant step in advance will be attained when road builders learn that gravel should not be covered with earth and sod; but that the grader blade should be reversed so as to turn the earth shoulders outward—throwing it by hand across the ditch, if necessary—and the gravel centre built up by a light coating of new material.

To prepare for conditions following the war by encouraging effective county, township, and provincial road organization, is, therefore, a leading purpose of the Highway Department at this time—a purpose which can largely be fostered by establishing efficient systems of maintenance such as will congest. which cell sarged by lostered by establishing emer-ent systems of maintenance such as will conserve what we already have, and prepare the way for greater future development.



An Excellent Township Road Much has been accomplished in the improvement of roads by these townships that employ a road superintendent. Illustration shows a good gravel road in Seymour township, constructed under the township superintendent.

Better results are obtained by feeding young caives three times a day, with the periods between feeding as nearly equal as possible. When fair his way the calf does not overload its stomach, and the diseastion of the feed is more evenly distributed. Regularity in feeding is important. When caives are fed but twice a day, the feeding should be as nearly as possible 12 hours apart.

(6) Nitrate of Soda

Data as to increased crop yields due to the use of Nitrate are available. Why not make your business of crop fertilizing profitable by the use of Nitrate of Soda whose efficiency is

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R. R. 2, Canfield, Ontario





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PETER HAMILTON CO., LIMITED Peterborough, Ont. 27



A Woman's Way

C IMPLICITY is the keynote of the successful poultry plant nowa-days whether it contain 100 hens The complicated rations 1.000. and the arduous system of feeding which were once believed necessary to winter egg production, are now known to be detrimental to the net profits of the business. A system re-cently described by a farm woman in one of the states to the south of us. combines the two requisites of sim plicity and efficiency to a marked de-gree. For the past three years this woman has had splendid success in procuring eggs from October to March, and her method is very sim ple, just mapping out what sh tends to do and then doing it. This is

the plan as she describes it herself:
"We have a hopper of dry bran
which our hens have access to at all times. About 10 per cent, beef scrap is added, unless there is an abundance of skim milk. At noon they are given a hot mash, which is composed of scraps and vegetable parings. At night

scraps and vegetable parings. At night we feed corn; this is fed at night to keep up the bodily heat.

"Each night after the chickens go to roost some kind of fresh litter is placed on the floor, into which is thrown cracked corn, wheat and oats. The ration will be absumed this winter. The ration will be changed this winter sme ration will be changed this winter somewhat. Instead of the wheat, oats will be used, one part of this grain to two parts cracked corn. The Bid-dies are up and industriously at work long before the family has built a fire This latter, of course, applies to the time after husking and before spring

Work begins."
With the exception of shells and water and some bulky green feed stored for each month in the year, this work begins." is all there is to the ration part of this is all there is to the ration part of this live little plant. Much emphasis was placed on the green feed; the hen that is supplied with this necessity is the healthy hen.

The Color of the Yolk

HE color of the yolk of the egg seems often to be affected very asems often to be affected very noticeably by a change in the food. When fowls are closely confined in winter or summer, it often happens, especially if a ration is deficient in green food, that the yolks are pale colored. Professor Wheeler says a change in the amount of meat or fresh home does not always some or freeh bones does not always seem to have much influence. He says he has known hens that had the run of a barn and barnyard, to lay eggs with much darker colored yolks than did neighboring hens confined but fed better in most respects. In one instance, a much desper orange color in the yolk followed a change in feeding to green clover and affairs. One lot, where pale colored yolks were the rule, laid eggs with orange colored yolks after they had been given the run of a barn floor covered with dry chaff and leaves. A change in color of butter is often noticeable in the same way when cows are turned to pasture after dry feed. Clover hay and corn stover make different color-ed butter. Clover hay or alfalfa hay is good to feed hens when the fresh fodder cannot be had, and may help to bring about the desired change. There is no doubt that the same cause which affects the color of butter in winter, also affects the color of the yolk of the egg.

winter fat in our fowls when we feed where fat in our fowls when we feed wheat and barley than when corn wheat and parley than when corn are given. Professor Cushwheat and barray and grass are given. Professor Cush-man believes that the color of the yolks of eggs is affected in the same way. Eggs from varieties of fowls

that lay but few, he says, are richer than those From breeds which lay large numbers of eggs. They are, at least, usually deeper in color. The first eggs of a White Leghorn pulse laid in the fall, have as yellow yolks as those of any breed; but atter she had told or more ages, ther have as those of any breed; but after she has laid 100 or more egs, they have become considerably lighter, and both the yolke and whites become thinner and more watery as the winker advances. This change may be prevented, to a considerable extent, by providing an abundance of food rich in ed, to a considerable extent, by pro-viding an abundance of food rich in agg-producing material. Beef scrap or cooked meat and cora should be given as well as wheat and plenty of good clover or second crop hay take the place of green grass.

FEEDERS CORNER

Ration of Concentrates

We have lots of corn enslage and good clover hay. Would you surgest a grain ration for grade cowe, miking 15 to 35 bs. of mik a day. Bran is 337; middlings, 867; actist 76, 86, 88 per cent. protein) as bushel. These are the conditional process of the condition of the condition

With sufficient corn ensilage at clover hay of good quality it would be advisable to feed a very heavy grain ration at prices quoted. However, a mixture of bran 3 parts, wheat over, a mixture of total of parts, wheat middlings 2 parts, ground oats 2 parts and cottonseed meal 2 parts, fed at the rate of one pound for every 4½ pounds of milk produced may be found quite profitable. If at all possible, it recovers advantage here of the seems advisable to replace part of the middlings and outs with dried distil-ler's grains if this may be procured at a reasonable figure. However, it must be clearly understood that the must be clearly understood that the basis of the most economical ration should be the very liberal feeding of good quality hay and sliage, and that the grain should only be used to balance such a ration as to the total protein and total digestible nutrients required.—E. S. A.

Feeding Four Times a Day

AM thinking of embarking on seven-day work. This will mean feeding four times a day as we will milk four the a day. Do the expert men and grain at new feed bedfor feedings, or do they feed roughage just twice and grain to the day of the seven and grain to the seven and the seven as a seven feed roughage just twice and grain to times? Any suggestion we will be ap-preciated.—"Holistin," Perh Co., Ont.

Experts in the making of records short time tests find it advisable to both milk and feed the cows four times a day, dividing the 24 hours into as near equal periods as possible. The most successful feeders find that although the liberal feeding of roots may not be as profitable as some other roughages, yet they are able to feed larger quantities of grain and do so more safely than when no roots are more safely than when no roots are fed: consequently, it is generally con-sidered advisable to fead from 10 to 15 pounds of sliced roots mixed with the grain and give to the cows at the time of milking. This means four feeds per day of grain and roots, the cougnities depending upon the indifeeds per day of grain and roots, the quantities depending upon the individual animal. Hay and ensilage should be fed only twice per day. For the morring and afternoon feeding the ensilage may be mixed with the roots and grain. The hay should be fed after the amendment repulsary and fed after the succulent roughage and grain has been consumed at the morning and afternoon milkings.—E. S. A

Alfalfa Silage

MILDIE STREET

OLLD it be advisable to put affaifa

In the silo? One of our neighbors

of the silo. One of our neighbors

as a silo. One of our neighbors

clover has he for two years. He says
that if he could grow affaifa as well as

I can, he would never grow another

about 70 acres of grown another

about 70 acres of grown corn beause

of the landing he silo.

of the landing he silo.

The silone of grown corn beause

of the landing he silo for affaifa. How

ses aifalfa silage compare in keeping slue with corn silage? Would it make suitable feed for dairy cows?—P.W.B., alton Co., Ont.

Affalfa has been used most successfully for the making of ensilage not only in Canada, but also throughout the United States. It has been found, however, that greater care m taken to make silage from alfalfa or clover than from corn. The legumes must be packed in the silo more carefully and more thoroughly tramped so as to exclude air as quickly as possible and even with these precautions there is greater risk from the material be coming too sour or in '.e presence of air becoming mouldy and thus unsuit-able for feed. Alfalfa alone probably does not make as good silage though mixed with corn or some sil as good silage as though mixed with own or some simi-lar material. One of the greatest dif-ficulties in making good sitage, from legumes is the carbohydrae of sufficient earbohydrae and starches to provide the pirac amount of lacide and acute for on these two acids depends the keeping qualities, the flavor and palatability of the easilage.

However, if alfalfa silage is properly However, if alkfalt stlage is properly made, it will undoubtedly keep as well as corn silage and will make a very suitable feed for dairy cows, it is doubtful, however, if it would not be more profitable to grow at least some corn, not only as a cleaning crop in the farm rotation, but also as a material is not with his agental and that ial to mix with the second and third cuts of alfalfa.—E. S. A.

FARM CHATS

Christmas Cheer

H. Percy Blanchard, Hants Co., N.S.

C HRISTMAS is just over. To many people in Canada it has been a sad one. In devastated Halifax it will long be remembered as less, shaken houses, or in crowded hos-pitals. With us in Ellershouse, in the afternoon we attended the atternoon we attended the funeral of woman killed in the disaster. But even Bethlehem at its Christmastide was not all joy. Soon came the sweep of Herod's sword, when every little in-nocent gave up its child-life for the Christ—the first ones to enter the Kingdom He came to huld Kingdom He came to build.

the battle battle Across the water, in t Russian defection, the Italian retreat, the releasing to the Prussians of a million men from the Russian frontier to fling against our western front, the outlook is serious. It seems more than ever a far cry to that "Peace on earth" of which the angels sang. And yet, could we have stood on the Nile banks four thousand years ago, when Moses fought apparently alone against the great Pharaoh, and when after one great Pharnoh, and when after one "big push" and another the Egyptians recovered and "came back", "we would have given long odds against that have old man who fought that freedom and liberty might live. The libit in the end the oppressor was shistory tells us, the power of Egypt was only a name for the century that followed. And if the heart of the Hun is hardened with some it up here and there, it may only be for his still deeper and more absolute ruin. When the Prince of Peace was born that the Prince of Peace was born that first Christmas Day, all the powers of the great Herod could not crush that little child that stood for the Desire little-child that stood for the Besilve of the Nations, for the Rightecounses and Peace He yet will usher in, in His own good time. It is not "roe with with the stood of the stood of that great and abiding peace, of indees and plenty, so seemingly far distant to-day, is the Christians that has come and gone, but which will some again. What a message of the plent of the stood on the stood of t

He is a good farmer-he reads Farm and Dairy regularly.

In Union There is Strength

The Saskatchewan Report

HÉ annual report of the Saskatch-HE annual report of the Saskatch-ewan Cooperative Elevator Com-pany, Limited, places the net profits of the concern for the past year at \$360,752.83. A cash dividend of eight per cent, was declared and a stock dividend of \$2,50 per sleap. In whose dridend or \$2.50 per share. In the company, there are now 302 local organizations, 19,317 shareholders, and during the year the company handled more than one-distin of the marketed grain crop of Saskatch-ewan, or over 34,000,000 buildels.

ewan, or over 34,000,000 bushels.
The company now owns 302 elevators, and Mr. F. W. Riddell, the
general manager, stated that the new
terminal elevator, costing \$1,270,000,
would be built out of the funds of the

company,

or puring the convention a presentation was made to the Hon. C. A. Dunning, provincial treasurer of Saskatchewan and manager of the Cooperative Elevator Company from its inception up to a few months ago. During that period Mr. Dunning de veloped the company from an experiment in 1911 to the largest individual grain handling institution on the American continent in 1916.

The directors recommerded that the sum of \$2,000 be donated to each of the following funds: Provincial Red Cross Society, Canadian Pat-riothe Fund, and the Belgian Relief Fund, all of which were gladly af-figued. The directors

Cooperative Live Stock Shipping S stated recently in Farm and Dairy, the Omemee and Rea-boro Farmers' Clubs in Victoria County have commenced shipping libes stock cooperatively on a somewhat large scale. Farm and Dairy is informed that the work is growing and proving a most successful feature of

Representative Wanted Good Salary Paid

E are looking for several men to become permanent district representatives for Farm and Dairy in various parts of Ontario and Quebec.

Each man will be paid an excellent salary; also a good commission in addition on all business turned in.

As the nature of the work involves the handling of considerable sums of meney for us, we expect each man to be prepared to give us a bond or security for a reasonable amount.

Applicants are also requested to furnish three or four testimonials as to character and integrity, from responsible men.

presentatives will be given ex-sive territory, consisting of sev-

The work will consist of securing new readers for Farm and Dalry among the farmers; also getting renewals of present subscriptions.

The district representative will be permitted to appoint local agents on commission wherever he sees fit, and on all business turned in by these local agents, the district representative will receive a commission.

A member of the regular staff of Farm and Dairy will accompany the district percentative at first for the purpose of assisting him in getting started, and giving him suggestions and training in the best methods of business getting.

men we engage as staff repre titives will have permanen and the opportunity of build p a profitable income for them in their chosen territory.

FARM AND DAIRY, PETERBORO, ONT.

the activity of these two clubs. In October these thesis and ouring November of Solar, and during November over \$1.700 more in the Readers Club, in a fellow from the Readers Club, in a fellow from the Readers Club, in the right direction, as it was through the cooperation, as described when the second of their wheat that the farmers caused their wheat that the farmers can can always the condition of their movement. As It stock is one of the principal profile of our Ontario farms, it is believed of our Ontario farms, it is believed there is an opening for the sale of the stock in Ontario along broad lines. the activity of these two clubs

C. E. Eckert, of the Fraser Valley C. E. Eckert, of the Fraser Valley Milk Producers' Association, writes Farm and Dairy that his association has just completed a carry of their members for three-year control for their members for three-year control for the handling of their milk, and say, to have very close to 100 per cent, renewals as well as a good percentage newals as well as a good percentage of non-members who have been shy about coming into the association the about coming into the association the



Farm and Dairy stands foursquare against everything that is detrimental to the farmers' interests, and whatever appears in its columns, either advertising or editorial, is guaranteed reliable.



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The Rural Publishing Company, Ltd. PETERBORO AND TORONTO

"Read not to contradict and to confute, nor to believe d take for granted, but to weigh and consider."—icon.

"The House of Holstein"

GOOD foundation is necessary to permanence. We have all read of the man who builded his house upon the sand and everything went well till the storms came and beat upon that house; then it fell. His neighbor who had builded on a rock, came through with flying colors.

The Holstein Friesian breed is being built upon a foundation of records. This foundation is of two differing materials, some breeders preferring to nail the flag of their faith to seven-day work, and others placing their confidence in yearly work. Are these short time records comparable to the sand of the parable? And are long time records comparable to the foundation rock which enabled the superstructure to withstand the fiercest attacks of the tempest? F. H. Stevens, of New York State, asks these questions in a recent issue of the Holstein Friesian World and answers in the affirmative. Mr. Stevens' views are reproduced in full on page three of Farm and Dairy this week.

The storm which may sweep away all that is useful from our dairy record systems is already breaking. The commercial dairyman is finding it hard to pay the high wages that help demand and buy costly feed for the production of a product the price of which is necessarily limited by the antagonism of consumers, who have come to expect milk to remain what it always has been in the past, one of their cheapest foods. The dairyman who can "carry on" under these conditions is the man with extra good cows; the kind that work year in and year out; the heavy, persistent milkers.

Utility value is what the commercial dairyman is demanding. Pure bred values are based ultimately on utility demands, and if seven day records do not meet with the favor of the commercial dairyman they must go. Then he who has built his herd and his reputation on short term records will discover the instability of his foundations. But the breeder

who has worked for heavy, persistent milkers, will know that he has indeed builded up in a rock. am not sure," writes Mr. Stevens, "but it would be the part of wisdom with the future of our breed in view to entirely abandon the seven-day test." Farm and Dairy columns are open for a live discussion of this very live topic.

It Hinges on Capital

HE Annual Report of the Saskatchewan Cooperative Elevator Company, Limited, just to hand, states that the net profits of the company for the financial year 1916-17 are \$350,752.83. Speaking at the recent convention of the United Farmers of Ontario, Mr. John Kennedy, second vicepresident of the United Grain Growers, Limited, es timated the profits of the latter company at \$800. 000. This represents well over \$1,000,000 of profits to the prairie farmers on the two companies. The United Farmers' Cooperative Company, Limited, of Onterio, on the other hand, operating in a much richer country than either of the prairie companies, in the last year declared profits of only \$1,213.80.

Why the difference? In part the superior showing of the Western companies may be attributed to greater experience and skill due to longer operation. In still greater degree it is due to the single crop system of farming followed, making the marketing of their products comparatively simple. A still greater factor in Western success, however, is the loyal cooperation that prairie farmers have given to their companies. In no way has this loyalty been better expressed than in the amount of capital that they have subscribed for their cooperative institutions. The paid-up capital of the Saskatchewan company was \$176,580, during the first year of its existence and since then the paid-up capital has been increased to \$1,060,482,60. The paid-up capital of the United Grain Growers, Limited, is \$1,440,160. In strong contrast with these well financed companies is the Ontario company with a capital of less than \$12,000 now, and during most of last year of less than \$6,000

The officers of the United Farmers' Cooperative Company, Limited, have done wonders on their small capital. In the past 10 months their business turnover has been over \$900,000. It is safe to say that the Ontario company has saved the farmers of this province in the last 10 months tens of thousands of dollars through its effect on the prices of goods sold farmers. The company's activities, however, are hampered on every hand by lack of capital and the value of their services will always be in proportion to their assets. The authorized capital of the United Farmers' Cooperative Company, Limited, now stands at \$250,000. If most of this were to be subscribed by Ontario farmers in the next few months their company would progress at a rate that would be an eye opener, both to its own shareholders and to our friends in the West who have such good cause to be proud of their own succ Ten thousand farmers, each owning five to ten shares of stock, would solve the financial problems of the central company. Why not a stock selling committee in every local of the U. F. O. this winter?

Railway Rate Increases

MANITOBA is the first province in Canada to take a decided stand against the decision of the Board of Railway Commissioners which would allow a ten to fifteen per cent. increase in freight and passenger rates on all Canadian roads. In a vigorous statement last week, Premier Norris denounced the decision of the Railway Board and stated the determination of his government to carry the case to the Supreme Court if necessary. From a purely provincial standpoint, the Manitoba premier is particularly concerned with the action of the commission in brushing aside what is known as the Manitoba agreement with the Canadian Northern Railway. By that agreement the province pledged its credit in support of certain undertakings of the railway company, and in return was guaranteed fixed freight rates for a number of years.

The partial nationalization of the Canadian North ern Raliway, the premier contends, has not relieved them of their bond guarantees, but it does deprive them of the benefits with which their guarantees were to be repaid. One national aspect of the case is convincingly stated in the following paragraph:

"Personally, I am amazed at the action of the Commission in ignoring the points raised with reference to the position of the Canadian Pacific Ralieway in this case," writes Mr. Norris. "that command in the case," writes Mr. Norris. way in this case," writes Mr. Noreis. "Chat company is so prosperous that it cannot make use, for
the present at least, of the millions and millions of
additional revenue that will come to it if these
didditional revenue that will come to it if these
additional revenue that will come to it if these
reased rates are sillowed to stand. Even own
officials have publicly explained that the accountcation of an enormous surplus has been due to the
inability of the company to speed the commaintenance and improvements. If they cannot
spend it, why do they sek for it, the
revenue of the company to speed
accountably a large surplus
for the purpose of
accountably a large surplus
I assume that a railway company has no more right to levy taxation
for that purpose." for that purpose.

We might add that not many months since a leading railway executive of another system stated that the difficulty of the railway companies in handling freight, was not so much a case of lack of capital as absolute inability to secure sufficient skilled labor, slow delivery of new rolling stock ordered and shortage of ocean space, which kept cars loaded at ocean terminals when they were badly needed to relieve inland freight congestion. None of these conditions that are hindering freight movement will be relieved by increased freight and passenger rates. The working out of the railway board's decision will be, in effect, the further enrichment of one already prosperous company to assist two smaller impecunious rivals; or really only one, as the C. N. R. is now under public control, and any loss on its operation could be met with less cost to the Canadian people by a direct bonus from the Dominton treasury. No more wasteful system of aiding the combined lines of the Grand Trunk and Grand Trunk Pacific railways could well be devised than a general increase in rates, and Manitoba will not be alone in opposition to the ratification of the order. President Wood, of the Canadian Council of Agriculture, has already forwarded his protest to Ottawa. That protest will be backed up by all of the strength of the farmers' organizations. The railway situation in Canada calls for some such effective policy of national control as has already been adopted in both England and the United States.

Keep Up Registrations

REGISTERED pedigree will not make a cow give a single extra pound of milk. Perhaps this explains why many dairy farmers, owners of pure bred animals, are careless with their registration papers and frequently neglect altogether the registering of their young stock. They wish to avoid the small expense connected with the transaction. In the long run this neglect is bound to be a losing policy. Just the extent that the loss may assume is well illustrated by the case of the cow Lilly that won the dairy test at Guelph.

Lilly is a pure bred Holstein. She was bred in a herd where registrations had long been neglected. Animals have died unregistered. Breeding records were not available and finally the herd got into such a condition that registration was impossible. As a result, Lilly, with several generations of unregistered pure bred ancesters, must be regarded as a grade cow. Had the registration of her ancestors been continued she would be worth probably \$600. As it is, she is not worth over \$200. Her male calves will be vealed and her heifer calves sold at the prices usually realized for good grade heifers. Nor is the loss on Lilly alone the only consideration. With the splendid showing she made at Guelph, all pure bred Holsteins related to her, which had been registered, would have increased in value and the total results of her win at Guelph might easily be counted in thousands of dollars. It was costly carelessness when Lilly's papers were neglected. But still there are hundreds of dairymen who are continuing to take the same risk in their herds?

(9)

High Grade Men With Farm and Dairy

HE response to our announcement stating that Farm and Dairy is appointing district representatives an various parts of the province has been meat graftfying. So not of the very best type of mea in the farming districts have signified the desire to reach Farm and Dairy in their district. Amongst these are a couple of county councillors and a former township revue.

It is men such as these—men of high standing in their respective mountlies—th.: we want to have. Farm and Dairy stands for big ideas and ideals—for the advancement of the farmers' weifare and it is only right and natural that men of similar calibre should want

There are a number of districts in which we have not as yet ap-pointed a representative. Perhaps yours is one of them. If you feel that you would like to represent Farm and Dairy among your brother farmers, and want to ite up permanently with a first-class proposition, read and reply to our advertisement elsewhere in this issue.

The Makers' Corner

tter and Cheese Makera are I to send contributions to the trement, to ask questions era relating to cheese making to suggest subjects for discu

Marketing Saskatchewan Butter

F. M. Logan, Dairy Commissioner.

N cooperative dairying there is no feature of more marked advantage than the cooperative marketing of has the cooperative marketing of the butter. It is practically impossible to satisfactorily supply the coast or foreign markets unless the seller is in a position to fill orders on short notice of from one to ten cars. Few if any creamerize in Canada have sufficiently and the company of the cient output to meet these requ ments, so the only practical way is for the butter from a number of creamerles to be assembled at central points and after grading have it sold through one office. With our system of gradone office. With our system of grading of ing cream and the careful grading of each churning of butter it is possible to have fifteen or twenty or even more creameries produce butter which is creameries produce butter which is almost uniform. When a dealer buys five or 10 carloads of the same grade he knows that his entire purchase is practically uniform in quality. This feature cannot be duplicated any feature cannot be duplicated any-where else in Canada. In the other provinces the creameries are practi-cally all privately owned and operated singly, so there is not the same op portunity for purchasing in large quantities butter that has been manufac-tured, graded, and sold under the con-trol of one office. By following this system the butter made by the cooperative creameries of Saskatchewan enjoys a reputation of which any prov-

enjoys a regutation of which any prov-ince might well be proud.

Four years ago the dealers on the Pacific coast were willing to pay from two to five cents more for pay from two to five cents more for pay from two to five cents more for any Canadian make. During recent years a gradual improvement has been made in western butter and I am in-formed on, good authority that teday made in western outer and I am in-formed on good authority that to-day the same dealers will pay as much for the butter made by the cooperafor the butter hade by the coopera-tive creameries of Saskatchewan as they will for the best New Zealand grades, and at the same time will pay from one to two cents more than they will for the once famous Eastern Townships butter.

The Pacific Coast, however, is not the only place where this butter can the only place where this butter can the outy place where this butter can be marketed. A carload was sent to Montreal in March of this year on consistence and the brown of the consistence and the brown of the consistence and the brown of the consistence of th

fect."

As further evidence of the quality
of Western Canada butter, I might
mention the result of a trial shipment
sent to England last fall. The Pairy
Commissioners for Manitobs, Alberta
and Saskatchewan made up a carload

and forwarded to the Bristol market. The brokers to whom it was consign ed wrote that the butter gave excellent satisfaction and they considered it "the finest lot of butter ever re-ceived from Canada." With such a ceived from Canada" With such a roputation for quality the butter produced by the Cooperative Creameries of Saskatchewan sells at a premium of at least two cents a pound in advance of what it would bring if each water the contract of the creamery were operated separately and the butter marketed in the same way. With an output of two or three million pounds an additional two cents per pound amounts to a sum of considerable size. Under the cooperative system the farmers who produce the cream obtain the entire benefit of this premium, for it costs no more, in fact less, to manufacture butter under this system than it would each creamery were operated singly.

Dairy Commissioner Wilson Resigns

A. Wilson, who has been Dairy Compissioner for Sas-katchewan since the province was organised, and who represented the Dominion Government in the Teritorial days, has resigned to become Ganaral Mayanger of the Saskatchewan

ritorial days, has resigned to become clears Manager of the Saskatchewan Co-operative Creameries, Limited. Under the guidance of Mr. Wilson, co-operative dairying has proved a great success in Saskatchewan. Mr. Wilson is a big man in every way, and those who know him will look for big things from the conceptation. things from the co-operative company with which he has identified himself.

Mr. F. M. Logan, who has been Deputy Commissioner, now becomes Dairy Commissioner in the place of Mr. Wilson.

Cooperative Creameries Ltd. WHILE the cooperative creamer-

in the cooperative creamer-ies have been satisfactorily operated during the past ten years it was decided that under the system followed they were not on as permanent a basis as they might be.
The custom has been for the Dairy Branch to obtain an annual lease of these creameries, and while the ten-dency in all cases has been to renew dency in all cases has been to renew the leases there was no suarantee that this would be done. It saure that this would be done. It saure that the development of permanents would be far from satisfactory, and the far from satisfactory, the form of the immediate operation of these considered. Work of a permanent nature could not well be undertaken on the basis of an annual lease, so the amalzamation of all these lease, so the amalzamation of all these lease, so the amalgamation of all these creameries seemed to offer a solution to the difficulty and has been under-

I predict a big future for the co-Their ability to provide an unlimited and profitable market for all the cream the farmers can produce is only cream the farmers can produce is only one of the services this company can render. This work was taken over by the new company about November 1st. Its future will be watched with keen

(Continued on page 13.)

ALPHA



--- the engine that takes the work out of farmwork

An Alpha will saw more wood in a day than you can saw by hand in a week.

It will pump water all day long without watching. It will run your separator, churn or washing machine.

't will run a thresher, feed cutter, or silo filler.

There will not be a day when you cannot find some way in which your Alpha will save time, money and labor for you. Owning an Alpha is cheaper than hiring someone else's engine

The money you now have to pay out for engine hire when you need power, and the greater amount of work you could do if you had an engine of your own would soon pay the cost of an Alpha.

The Alpha is a simple, powerful engine that will give you more

reliable service and cause you less trouble than any other engine you can buy.

Ask for catalogue, prices and consists information. Made in eleven sizes, 2 to 28 H. P. Each furnished in stationary, semi-portable or portable style, and with appear or tank cooled cylinder.

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and ideal Green Feed Siles. Alpha Churns and
Buttermakers. Catalogues of any of our lines mailed upon request. PETERBORO WINNIPEG 50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER VANCOUVER



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Wish their patrons and all other farmers a prosperous and happy New Year.

Buy Cooperatively and Save Money

We are here to serve the farmers of Ontario at the lowest possible cost.

Get prices from us before purchasing your 1918 requirements of harness, cutters, sleighs, gasoline engines, fencing, lumber, shingles, fertilizer, groceries,

The United Farmers' Cooperative Co. Limited

2 Francis Street

Toronto, Ontario

(10)



NOTHING is more common than our anxiety to reform other people, while we do not even make a beginning on ourselves .- Thomas A. Kempis

The Heart of the Desert

(Continued from last week.)

N her weakness and misery Rhoda's cleft chin 'quivered' only merciless determination in the Indian's face. Slowly the girl walked to his side. He swung her to the saddle, adjusted the stirrups care-fully, they fastened her fully, then fastened her securely to the saddle with a strap about her waist. Rhoda watched him in silence of utter fear. Having settled the girl to his satisfaction, he mounted his own horse, and Rhoda's pony followed him

norse, and knoda's pony followed him tractably up the trail.

The trail rose steeply. After the first few dizzy moments, Rhoda, cling-ing to the saddle with hands and knees, was thankful for the security of her new seat. The scenery was unwere great overhanging walls cactus growing from every with cactus growing from every crevice; to the right, depth of canon toward which she dared not look but only trusted berself prayerfully to

her steady little borse.

As the trail led higher and darkness As the trail led himer and darkness settled, the cold grew intense and Rhoda cowered and shivered. Yet through her fear and discomfort was creaning surprise that her strength had endured even this lang. In a spot where the trail widered Kut-is dranped back beside her and she felt warm folds of a Navado blanket about her shoulders. Neither she nor the Inshoulders. Naturer she had the night dian snowe. The madness of the night hofore, the fear and discusst of the afternoon gave way, slowly, to a lethergy of exhaustion. All thought of her frightful predicament, of her friends' anxiety, of Kut-le's treachery, was dulled by a weariness so great that she could only cling to the saddle

that she could only clive to the saddle and new for the trail to end.

Kut-le, riding just ahead, slanced back constantly at the girl's dim fleure, But Rho'a was havond plead-ing or protesting. The trail twisted and undulated on and on. Each mo-ment Rhoda felt less certain of her sect. Fach moment the motion of the horse erew more painful. At last a faint odor of pine-needles roused her sinking senses and she onened her heavy over ing edge of the canon and Alchise growth of pines where the mournful hooting of owls gave a proveyard sadness to the moon-flecked shadows.

Here, in a long siele of columnar nines, Kut-le celled the first halt. Rhoda reeled in her saddle. Refore her horse stonned. Kut-le was beside her, unfastening her waist strap and lifting her to the ground. He pulled the blanket from his own shoulders and Molly stretched it on the soft nine-needles Phoda balf delicious, looked un into the young Indian's face with the pathetic unconsciousness of a sick child. He laid her carefully on the blanket. The two squaws hurriedly knelt at Rhoda's side and with clever hands rubbed and manipulated the slender, exhausted body until the girl

opened her languid eyes

Kut-le, while this was being done, stood quietly by the blanket, his fine face stern and intent. When Rhoda opened her eyes, he put aside the two

squaws, knelt and raised the girl's head and held a cup of the rich broth to her lips. It was cold, yet it tasted good, and Rhoda finished the cup withgood, and Rhoda finished the cup with-out protest, then struggled to a sitting position. After a moment Kut-le raised her gently to her feet. Here, however, she pushed him away and walked unsteadily to her horse. Kut-le's hands dropped to his side and he stood in the moonlight watching the frail boyish figure clamber with infinite travail into the saddle. From the pine wood, the trail led downward. The rubbing and the

as he sat! If only his Indians would turn on him and kill him! They were riding through the desert

They were riding through the desert now, desert thick-grown with cactus and sage-brush. Suddenly a far away roar came to Rhoda's ears. There was a faint whistle repeated with increas-ing loudness. Off to the north ap-peared a light that grew till it threw peared a light that grew till it threw a dazzling beam on the strange little waiting group. The train passed, a half-dozen dimly lighted Pullmans. The roaring decreased, the whistle sounded lower and the sounded lower and the night was silent. Rhods are the last till night was silent. Rhods are the last till night was promised to the last till night was promised by the last till night promised to the description of the descript As Rhoda saw the long line of rails the panic of the previous night overwhelmed her. Like a mad thing, unmindful of the strap about her walst she threw herself from the saidle and hung against the stolid pony. Kut-le dismounted and undid the strap. girl dropped to the ties and lay crouched with her face against the steel rail.

"O John! O John DeWitt!" she

"Alchise, go ahead with the horses," said Kut-le. "Wait for me at the painted rock."

Then as the Indians became indis-tinguishable along the track he lifted

inguishable along the track he lifted Rhoda to her feet.
"Walk for a while," he said. "It will rest you. Poor little girl! I wish I could have managed differently

Hauling Logs to the Sawmill-A Winter Occupation.

A scene such as the above is becoming somewhat of a rarity in the older sections of Ontario, but hauling logs is the winter occupation of the farmer who is clearing his land in New Ontario. The above illustration was taken at the Government Experiment Station at Monteith, in New Ontario.

broth had put new life into Rhoda, and for a little while she kept a clear brain. For the first time it occurred her that instead of following the Indians so stupidly she ought to watch her chance and at the first op-portunity make a wild dash off into the darkness. Kut-le was so sure of her weakness and cowardice that she felt that he would be taken completely by surprise and she might elude him. With a definite purpose in her mind she was able to fight off again and again the blur of weakness that

threatened her.

As the trail widened in the descent, Kut-le rode in beside her.

"Feeling better?" he asked cheer-

Rhoda made no reply. Such a pas-sion of hatred for the man shook her that words failed her. She turned a white face toward him, the eyes the nostrils quivering with passion

Kut-le laughed softly.
"Hate me, Rhoda! Hate me as much

as you wish! That's a heap more hopeful than indifference. I'll bet you aren't thinking of dying of ennui

What flend, thought Rhoda, thad induced her to make a friend of this savage. She clung to the pom-mel of her saddle, her eyes fastened on him. If only he would drop dead but this was best for you. don't be afraid of me!"

Some savage instinct stirred in Rhoda. For the first time in her life she felt an insane joy in anger.
"I'm not afraid of you, you Apache

Come.

Indian!" she said clearly. "I you! Your touch poisons me! "I loathe I'm not afraid of you! I shall choke myself with my bare hands before you shall harm me! And if you keep me long enough I shall try to kill you!"

you!"

Kutle gave a short laugh.

"Listen, Rhoda. Your protests show
that you are afraid of me. But you
need not be. Your protection lies in
the fact that I love you—love you with
all the passion of a savage, all the restraint of a Caucasian. I'd rather die straint of a Caucasian. I'd rather die than harm you! Why, girl, I'm sav-ing you, not destroying you! Rhoda! Dear one!" He pensed and Rhoda could hear his quickened breath. Then he added lightly, "Let's get on with our little stroil!"

Rhoda wrung her hands and groan ed. Only to escape—to escape! Suddenly turning, she ran down the track. Kut-le watched her, motionless, unushe had run perhaps a hundred yards, then with a few mishty leaps he overtook her and gathered her to his great chest. Moaning, Rhoda lay still. "Dear," said Kut-le, "don't exert yourself foolishly. If you must escape, lay your plans carefully. Use Kut-le watched her, motionless, until

Don't act like a child. I your brain.

ve you, Rhoda!"
"I loathe you! I loathe you!" whis-

pered the girl.
"You don't-ahabruptly and set the girl on the ground. They were standing beside a side-track near a desert water-tank.
"I've caught my foot in a switchfrog," muttered Kut-le, keeping his hold on Rhoda with one hand while with the other he tugged at his moccasined foot.

casined foot.
Rhoda stood rigid.
"I hear a train!" she cried. "O
dear God, I hear a train!" Then,
"The other Indians are too far away
to reach you before the train does,"
she added calmly.
"But I'll never loose my grip on

you," returned the Indian grimly.

He tore at the imprisoned foot, ripping the moccasin and tearing at the road bed. The rails began to sing. Far down the track they saw a star of light. Rhoda's heart stood still. This, then, was to be the end! After all the months of distant menace, death was months of distant menace, death was to be upon her in a moment! This, then, was to be the solution! And with all the horror of what life might mean to her, she cried out with a

"Oh, not this way! Not this way!" Kut-le gave her a quick push.
"Hurry." he said, "and try to remember good things of me!"

member good things of me!"
With a cry of joy, Rhoda jumped
from the track, then stopped. There
flashed across her inner vision the
face of young Cartwell, debonair and dark, with unfathomable eyes; young dark, with unrathomable eyes; young Cartwell who had saved her life when the scorpion had stung her, who had spent hours trying to lead her back to health. Instantly she turned and staggered back to the Indian.

"I can't let a human being die like a trapped animal!" she panted, and she threw herself wildly against him. Rut-le fell at the unexpected impact of her weight and his foot was freed! He lifted Rhoda, leaned from the track, and the second section of the tourist train thundered into the

"You are as fine as I thought you were—" he began. But Rhoda was a limu heap at his feet.

The girl came to her senses partial-

when Kut-le set her in the saddle and fastened her there with strap and blanket. But happily she was prac-tically unconscious for the hour or two that remained till dawn Just as day was breaking the Indians made their way across an arroyo and up a long slope to a group of cottonwoods. Here Rhoda was put to bed on a heap of blankets.

woke with a clear head. It was the first time in months that she had wakened without a head wakened without a head stared from the shade of the cottonwoods to the distant lavender haze of the desert. There was not a sound in all the world. Mysterious, remote, the desert stared back at her, mocking her little grief. More terrible to her than her danger Kut-le's hands death threat more appalling that had hung so long, was this sense of am nothingness with the desert oppressed her. Instinctively she turned to look for human companionship. Kut-le and Alchise were not to be seen but Molly nodded beside Rhoda's blankets and the thin hag Cesca was curled in the grass near by, asleen.
"You awake? Heap hungry?" asked

Molly suddenly.
Rhoda sat up, groaning at the torturing stiffness of her muscles.
"Where is Kut-le?" she asked.

Alchise "Gone get 'em supper.

"Molly," Rhoda took the rough brown hand between both her soft cold palms, "Molly, will you help me to run away?"

Molly looked from the clasping fin

gers up to Rhoda's sweet face. Molig

(Continued on next page.)

January 10, 1918.

MAXWELLS LIMITED

Dept

THE UPWARD LOOK

Our Share Comes First

ND the Lord said unto Joshua Get thee up; wherefore liest thou thus upon thy face?— Joshua 7: 10.

There is a time for pleading and intercession, but it almost invariably must have been preceded or accommust have been preceded or accom-panied or followed by work. God visely and mercifully does not do H4s part until we have done ours to the utmost. If it were otherwise, what

utmost. If it were otherwise, what a race of dependents we would be! Joshua had been praying long enough. It was now time for him to act. There had been a great sin committed. The evildoer was among his people. He was the same that the people with the property of the people with the people was not provided in the people with the people was not provided the people with the people was not people with the people was not people when the people was not people was not people with the people was not people was not people with the people was not people was not people was not people was not people with the people was not people was not people was not people with the people was not people was not people was not people was not people with the people was not people was not people with the people was not peo

Many people seem to feel that once have prayed for a certain son or about a certain matter there their responsibility ends, and thus they have oftentimes shirked a solresponsibility, if they have done nothing when action was in their

Often it really seems an easy way of relief by saying we will remember a certain field of work in our prayers, whether that field be in the Antipodes very near at home.

or one very near at home.

What would we think of a father
whose son came to him for help in
arithmetic who worked out the whole
question for him? Never should that
father help until the son had done his
had first.

We cannot honestly ask God's help in overcoming a sin, unless we our-selves are making a heroic struggle. Sin was written Sin was written purposely, because so often one justifies himself by callso often one justifies himself by call-ing sins raults. So in all problems and cffficulties and struggles, how-ever small and however great, God expects us to do upart first, though at some times and at long times we may have to lie prostrate and humble, but with hearts full of faith.—I. H. N.

The Church Habit

O," said Mrs. Jenkins, "the ohildren do not get to church very often. They go to their Sunday school, and I think that's enough."

Doctor Brown did not seem to be convinced, so she continued: "Of course I should like them all to come with me to the church service, but they are not much interested, and I do not insist."

"You insist on their going to day school, whether or not they are inter-ested I suppose?" the minister asked. "Why, certainly!" Mrs. Jenkins answered, with some indignation.

"But why should you leave this other matter, which seems to me of at least equal importance, to their caprice?"

"It isn't wholly a matter of caprice,"
Mrs. Jenkins returned, with some
spirit. "I think it is too much to ask

solisi. "I think it is too much to ask little children, to sit through that long morring service."
"That long morning service' aver-aces about an hour and a half." an-swered the clerkyman. "The same children sit through two sessions at school argar day asach spaces propose children set through two acesions at school every day, each esession longer than that. You and I, in our youth, sat threesh much longer services every Sunday, and our nervous systems connacted rather well with those of the children of to-day!"

"De you result think it so very important of the children to attend the children the chil

"I certainly do!" replied Doctor for children and parents to have less and less in common. In my youth parents and children played together, parents and children played together, and studied together, and starded at home together, and went to church tosether. We see as little of our children as possible nowadays, to the sreat loss of us all. But at least we can go to God's house together on the

Lord's day! The children would soon enjoy going it it were a family custom, and if they didn't enjoy it, it ould be a wholesome thing for them discover that there are lots of would be a whomsome thing, ""
to discover that there are lots of
things in this world to be done,
whether we enjoy doing them or not.
That is the kind of lesson the comling generation particularly needs.
"The enjoy to show all

"But going to church has above all a religious value. And let me tell you, if you were setting deliberately about abolishing the church afto gether at the end of another genera tion, the surest way of doing so would be to let that generation grow up without the habit of church attend-Whether or not you help them to form that habit certainly seems to important!

Mrs. Jenkins no longer smiled.

"And so it, seems to me," she said.— Youth's Companion.

Not Tough If Properly Cooked The saying "Tough as an old hen" has made old hen uninviting to

most of us. However, old hen may be made most tempting by promay be made most tempting by pro-per and thoughtful cooking. Instead of putting the hen in a large quantity of water and boiling the flavor out into liquid, try steaming. If you have not a regular steammake one out of a kettle and col-

ander. Steam the fowl from one to two hours until tender.

It may then be stuffed and roasted, basting with some of the liquor in which it has been steamed, and is tender and tasty.

After steaming, the fowl may be cut into pieces, the pieces browned in a frying pan, then covered with a gravy made from the liquor, thickening and seasoning, and allowed to cook until well flavored. The gravy may be varied by using in it tomatoes, green or red peppers chopped fine browned onions, celery seed or salt, or mushrooms. or mushrooms. In recommending mushrooms it is assumed that a home-canned or home-dried product be used. - Colorado Agricultural College,

HOME CLUB

A New Year's Resolution

HE beginning of the year is a The oegining of the year is a good time to introduce, new methods into our system of housekeeping. One of the problems which I have never been able to sucwhich I have never been able to suc-ceasefully contain has been to find a suitable place for keeping cooking, recipes, accounts, receipts, also sug-sected sames and other forms of amusement. Every few months I re-solve that a change must be made, but someta change must be made, but somehow the new roomes which I clip and wish to put away until I have an opportunity of trying them out, go into a cook book already bulgwith tried and untried recipes the accounts and receipts are very apt to find their way into my favorite and clippings, such as forms of enter-talment, go-well, any place that seems convenient at the time they olipped.

My sidea is to use a miniature filing ablinet. The fact of the matter is, precented myself with one as a haristmas gift. It is a small drawer Christmas gift. file, similar to those used in some of It contains cards about 3 x 5 inches in size, and the cabinet is di vided into several compartments and violei into several compartments and sub-divided ao that everything can be filed alphabetically if desired. My recipes are going into this file, ar-ranged under various headings, such ackes, meats, soups, etc. I will have one compartment for untried recipes, and as I try them out, if good, they will be other meated. they will be either pasted or written on a card and placed in their proper on a card and placed in them project compartment, and if not good will be destroyed. " will apply in connection We enter-

tain the young people of the commun that the young people of the commun-ity quite often, and it is difficult to vary an evening's fun unless one has a fund of ideas at their disposal. I will keep all the methods of entertaining which I consider worth saving in my filing cabinet, where they will easily available.

For accounts and receipts, which eccessarily must be kept on hand, 1 have purchased a vertical letter file with an alphabetical index. I will simply alip them into their proper place as they come in and can occa sionally go through the file and de-

stroy those of no further use.

What do Home Clubbers think of
my idea? Will be glad to hear of any Will be glad to hear of any my idea. Will be glad to hear of any others who have a better soheme in mind, as mine may be faulty, and I am open for suggestions.—"John's Wife."

The Heart of the Desert (Continued from page 10.)

was a squaw, dirty and ignorant. Rhoda was the delicate product of a highly cultivated civilization, egoistic, naginy chilvated civinzation, egoistic, narrow-viewed, self-centered. And yet Rhoda, looking into Molly's deep brown eyes, saw there that limitless patience and fortitude and gentleness which is woman's without regard to which is woman's without regard to class or color. And not knowing why, the white girl bowed her head on the squaw's fat shoulder and sobbed a little. A strange look came into Molly's face. She was childless and had worked fearfully to justify her existence to her tribe. Few hands had touched hers in tenderness. Few voices had appealed to her for sympathy. Suddenly Molly clasped Rhoda in her strong arms and swayed

back and forth with her gently.
"You no cry!" she said. "Y
cry, little Sunhead, you no cry!"

"Molly, dear kind Molly, won't you help me to get back to my own peo-Suppose it was your daughter a white man had stolen! O that a white man had stolen! O Molly, I want to go home!"

Molly still rocked and spoke in the

singsong voice one uses to a sobbing "You no run 'way Kut-le catch right off! Make it all harder for

Rhoda shivered a little.

'If I once get away, Kut-le never will catch me alive!"

Molly chuckled indulgently.

Molly chuckled indulgently.

"How you run? No sabe how eat, how drink, how find the trail! Better stay with Molly." "I would wait till I thought w were near a town. Won't you belp me? Dear, kind Molly, won't you

Kut-le kill Molly with cactus tor-

"But you go with me!" The sobs ceased and Rhoda sat back on her blankets as the idea developed. "You go with me and I'll make you."

Neither noticed the soft thud of moccasined feet. Suddenly Alchise seized Molly's black hair and with a violent jerk pulled the woman back ward. Rhoda forgot her stiffened muscles, forgot her gentle ancestry. She sprang at Alchise with catlike fury and struck his fingers

Molly's hair.
"You fiend! I wish I could shoot you!" she panted, her fingers twitch-

Alchise retreated a step. "She try help 'em run!" he said sullenly

"She was not! And no matter if she Don't you touch a woman before me!"

fore me!"
A swift shadow crossed the camp
and Alchise was buried six feet away.
"What's the matter!" orior Kutle.
"Has he laid fineer on you, Rhoda."
He strode to her side and looked down
at her with eyes in which struggled

anger and anxiety. anger and anxiety.
"No!" blazed Rhoda. "But he pulled Molly over backward by her hair!"
"Oh!" in evident relief. "And what "Oh!" in evident relief. was Molly doing?"

(To be Continued.)

(11) axwell Favorite Churn the the Here's the best Churn

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(12)

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irstin One-Man Stump Puller

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Farm and Dairy patterns shown in these columns are especially gra-pared for Our Women Folk. They can be relied upon to be the latest models and include the most modern features of the paper pattern. When the pattern was a superior of the pattern described. Orders are filled within one week to 16 days after receipt. Fries of all pattern to Our Women Folk, 16 cents each. Address orders to Pattern Dept. Farm and Dairy, Feirberg, Ohs.



Tolk the past two or three weeks, the time for sewing, as other duties pertaining to the Christmass saaon have elaimed our attention. Now that Christman the Christmass saaon have elaimed our attention. Now that Christman the Christmass saaon have elaimed our attention. Now that Christman the Christmass saaon have elaimed our tention of the Christman that the Christman tha

2320—Giri's Dress are little girl in the bound is unsully quite as anxious to have and herewith is shown an extremely dainty costume for the young girl. It does not not be a sun and herewith is shown and herewith shown and these one would really have two discussed and these one would really have two discussed and the sense would really have two discussed and the sense of the sense of the probably he work in both ways and these one would really have two discussed and the sense of the sense of the probably have two discussed and the sense of the s



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duced.

We buy direct from the grower and sell at a small margin direct to the farmer. That is why our prices are the lowest on the market. Get our catalogue and com-

Pa	rLe	prices.				
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GEO.KEITH & SONS 124 KING ST. I



SHAW MANUFAU Kansas, U.S. Dept. 138, Galesburg, Kansas, U.S.

WANTED: a good reliable man as Assistant Superintendent in our retail milk plant. Must be familiar with Baboock Test, and have a working knowledge of the usual milk plant machinery. Per-manent position for the right man. State qualifications and wal-ary.

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BOOKS

BOOK DEPT., FARM AND DAIRY PETERBORO, ONT.

Cooperative Creameries Ltd.

(Continued from Page 9.) interest by thousands who are personally and fine cially interested.

ally and fins. cfally interested.

Saskatchowan has been singularly successful in cooperative undertaklags, and I look forward with confidence to the time when The Cooperative Creameries, Ltd., will prove one of the most successful.

Creamery Men Will Meet

DITOR Farm and Dairy:—At a meeting held in the Carle-Bitle, meeting held in the Carle-Bitle, meeting held in the Carle-Bitle, meeting held in Canadian Cramery Association decided to hold their annual meeting decided to hold their annual meeting of beach, meeting to be held at the Carle-Bitle, meeting to be held at the Carle-Bitle and others interested are cordially life the present. Hems of interest, such as Oleomargarine, Butter Gradius, Futting Away of Ice Di Cramery, Patrons, etc., will be discussed.

Those present at the meeting on De Those present at the meeting on De-cember 28, were Prevident, Mack Robertson, Belleville; Vice-President, Wm. Newman, Lornswille; Socretary-Treasurer, W. G. Jackson, Simose; Di-rectors, S. R. Bull, Tevater; M. Waddell, Strathroy,—Mack Robertson.

How to Prevent Mold in Butter

How to Prevent Mold in Butter

"Mold can he affectively destroyed
by hot water," stated Mr. M. Proven
by hot water," stated Mr. M. Proven
by hot water," stated Mr. M. Proven
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"The third source of mold—the but-ter—is taken care of by pasteurizing the cream effectively.

ter-is taken care of by pasteurizing the cream effectively.

"If you do not want moid remember: No more soaking tubs in cold water over night, either by stacking or by complete submersion. Moid appress are everywhere present, but not developed moid. Saft prevents the securional of destroy them, nor does it makes to destroy them, nor does it makes to destroy them, nor does it makes to destroy them, nor does the form of the form of the securional of the securi was the result of vegetative growth. Tubs and paper should be stored in a dry, clean place. There can be developed fungi on tubs and paper even though you can't see them.

Don't Cut Out A SHOE BOIL, CAPPED HOCK OR BURSITIS FOR

BSORBINE

will remove them and leave no blemishes. Reduces any puff or swelling. Does not blister or remove the hair, and horse can be worked. \$2 abottle delivered. Book 6 K free.

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(14)

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1. Born Dec., 1916, from a 30 lb, show cow which is a granddaughter of KING SEGIS, her sire's dam being a 33 lb. cow, BLANCHE LYONS DE KOL. The dam of calf also has two records of over 29 lbs.

2. Born January, 1917, from a 19.84 lb. granddaughter of KING OF THE PONTIACS, her other grand sire being PRINCE HENGERVELD

Three others born in March, 1917-one from the dam of our great cow LADY WALDORF PIETJE, the dam having over 28 lbs. and over 100 lbs. milk in one day.

All above are sired by our WOODCREST SIR CLYDE, dam 33.07 butter 7 days, and with 22,558 lbs. milk semi-official one year. They are every one extra good individuals, well marked and guaranteed to please. We want to make room for coming calves and are offering them at very low prices.

We have a few first arrivals sired by CHAMPION ECHO SYLVIA PONTIAC. We can sell a few good young females sired by WOOD-CREST SIR CLYDE and bred to CHAMPION.

WRITE FOR PEDIGREES. THEY WILL INTEREST YOU AS WILL THE PRICES.

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LAKEVIEW FARM

is now offering a choice young bull almost fit for service, sired by KING CANARY SEGIS, whose dam PET CANARY COUNTESS 2nd, has for 3 onsecutive years held the Canadian Record for butter in 7 days in the 8 months after calving division, best 7 days butter 27.73 lbs. as a 3-year-old. His dam at 4 years, 19.56 lbs., is a full sister to the Highest produc-ing 3-year-old in Canada, LAKEVIEW DUTCHLAND ARTIS, 34.66 lbs. butter from 567.7 lbs. milk, average test 4.88%.

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A bull calf whose dam is a daughter of SCOTCH THISTLE, the champion R. O. P. 3-year-old, record of 14,907 lbs, milk, \$31 lbs, fat. His aire is a son of BRIBITY 2ND of SPRINGBANK, the heaviest milking 2-year-old ever tested in Canada, record 14,131 lbs, milk, \$39 lbs, fat. Priced atfractions

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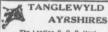
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Young Stock for sale, always on hand (both sexes), from high-testing heavy producers. Good udders and large test a special feature of my herd. Three fine young Sires ready for service. Get particulars of these if you need a sire. R. T. BROWNLEE, Peach Blow Farm, HEMMINGFORD, Que.

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The Leading R. O. P. Herd Large Cows, Large Teats, Large Re-cerds, High Testers. Choice Young Bulls and Bull Calves and a few Cows or sale. R. R. NO. 1, MODREFIELD, ONT.



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HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the leading exponent of dairying in Canada. The great majority of the members of the Canadian Holstein-Friesian Association are readers of the Association are freeded of the canadian that the control of the canadian that the can

GREAT BRITAIN.

A MONG daily cattle in relations in Mong daily cattle in relations in the present chief tople of conversations and admirate in the present chief tople of conversations are not seen as a seen of the present chief tople of conversations are not seen as a seen of the month of the

5,000. Cow average \$340.

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Deli Beke 3rd, and a numeer or omiyoung females going for well over \$1,000
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their produce realised in the sale \$23,466. During Four Bulls Average \$4,700.

During House the month of October, further evidence the month of October, further evidence the month of October, further sale for the sale of t

55,000. Seven cows and helfers were sold at prices ranging from \$1,000 to \$1.00 cach.

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WILLOWMOOR HAPPY GIRL

WILLOWMOOR Happy GIRL.

WILLOWMOOR Happy GIRL 22161.

Willacowmoor Happy Girl C. 22161.

Washington, completed her third Advanced and owned by J. W. Clise of Washington, completed her third Advanced and severage 1216.

Advanced As a sentor four-year-old she produced the sentor four-year-old she pr

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Canada Depends Upon Its Farmers

You are the backbone of this country-upon what you produce, the rest of the nation lives. Stock, grain and Dairy Products are needed in larger quantities. It's simply a case of in-tensive production of food stuffs, and elimination of waste. A maximum milk yield can only come from feeding a balanced ration such as

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Our Dairy Meal is balanced in its food content. It is pre or Dairy Mean is balanced in its food content. It is pre-pared from select, clean materials which are easily digested and rich in protein. Your cows will give all the milk they are cap-able of producing, if fed on Dairy meal according to the instruc-tions on __1 tag attached to each bag. Order a supply from your feed man at once.

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

MARKET REVIEW AND FORECAST

TORONTO, Jan. 7.—Despite the fact
Toronto in many parts of the country.
The property of the country of the coun

The grain marked have not yet transacted much bristed have the holiday
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northern, \$2.994; No. 3 northern, \$2.47\squares, No. 4 wheat, \$2.10\squares, No. 4 wheat, \$2.10\squares, No. 4 wheat, \$2.10\squares, \$2.10\sq



AUCTION SALE

36 Head of High Grade HOLSTEINS

Cows, New Milkers and Springers

Lot 12, Concession 9 DEREHAM

THURSDAY, JAN. 31st beginning at 1 o'clock p.m.

WE BELIEVE this to be one of the best herds ever offered by auction in the township of

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FOR MILK, BUTTER, CHE'SE, VEAL Holstein cows stand supreme. If you try just one animal you will very soon want more. Write the HOLSTEIN PRIESIAN ASSOCIATION.

W. A. CLEMONS, Sec.,

to 88c; do No. 3 local white, 851/4c to 88c. Bran. \$35. Shorts \$40. Middings \$48 to \$50. Moulte \$56 to \$58. Mill Feeds,

Although the prices of mill feeds are atill quoted at the Food Controller two weeks set by the Food Controller two weeks and the production of the food the food to the food the food to the food the foo

per bag Montreal quotations are the same as last week.

Hay and Straw.

Quotations on the hay market remain the same as they have been for several the same as they have been for several track, 315. Toronto quoting No. 1 on track, 315. Toronto quoting No. 1 on track, 315. Toronto quoting No. 1 on track, 315. Toronto quoting the following prices for seed at spaying the following prices for seed at spaying the following prices for seed at spaying the following prices for seed at 10. 1 to 11. 1 to

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monety tolerest spot frost. Good potatoes are finding brisk demand are finding brisk demand as a finding brisk demand and the first spot from the

closing day.

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Choice export steers Butchers' choice hands	
Butchers' choice handy	11.50 to \$12.50
do more handy	10.75 to 11.50
do good	9.50 to 10.00
	8.50 to 8.75
	7.75 to 8.00
	7.50 to 8.00
	8.00 to 9.25
	7.25 to 8.00
	6.50 to 7.00
	5.00 to 5.40
	0.00 to 125.00
	5.00 to 85.00
	4.00 to 16.50
	6.00 to 6.50
	6.00 to 7.00
Spring lamba	8.00 to 10.50
Spring lambs, cwt 1	8.50 to 19.00
	9.00 to 15.00
do heavy and bucks	7.50 to 9.50
do culls	
Hogs, fed and watered . 1	
	atasmi less
50c to \$1 on heavies.	1698
	NUMBER OF STREET

HOLSTEINS .

We have the only two sons in Canada, of the 46-lb, buil Grmsby Jana King-only mature son of the world's most famous cow. One of them the sale, size of the calf, whose dam and two great-grand-dams average 32.4 all ages.

A. M. HOLTBY,

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R. N. M. S. R. N. M. S. R. N. M. S. R. N. M. S. R. N. M. HOLTBY.

R. R. No. 4,

PORT PERRY, ONT.

SUNNYSIDE STOCK FARM HOLSTEINS

DOINT SURFACE STORE AND A PART INVESTIGATE

50-lb. cow. Sells Fayne Johanna. He is a grand buil in every way and is
not yet 4; sells Fayne Johanna. He is a grand buil in every way and is
not yet 4; sells for a could are benefit would sell him at a price. Also
selfs Fayne and out of the to averances months old for sale, sized by the
buil, write or come and see them.

JOHN M. MONTLE, Prop. Sunnyside Stock Farm, STANSTEAD, QUE.

PEDIGREED HOLSTFINS

Will sell some pedigreed Holtein cows and heifers, freshening from the state of the middle of June. What was to the middle of June. What was to the middle of June where the state of the s

FOR SALE —— Centre View Pontiac Segis =

His Dam, PONTIAC JESSIE 2nd, has just made 23:51 lbs. butlet and 4.8 lbs. milk at 4 years and 26 days. She is a daugnt 25:51 lbs. butlet and 4.8 lbs. milk at 4 years and 26 days. She is a daugnt 25:51 lbs. butlet and 4.8 lbs. She is a daugnt 25:51 lbs. butlet and 4.8 lbs. She is a daugnt 25:51 lbs. butlet and 4.8 lbs. She is a daugnt 25:51 lbs. Wilk 25:51 lbs. She is a daugnt 25:51 lbs. Wilk 25:51 lbs. She is a daugnt 25:5

Woodstock Shipping Station, M. McDOWELL Oxford Centre, Ont

We offer one—just one—from a dam with a swill make you money. 14-1b, semi-official record as a junior 2-year-old on at test, and a last sister to MAY ECHO DAYLOR SEGIS KEVES, whose dam is a last sister to MAY ECHO DAYLOR SEGIS KEVES, whose dam is a last sister to MAY ECHO DAYLOR SEGIS KEVES, whose dam is a last sister to MAY ECHO DAYLOR SEGIS KEVES, whose dam is a last sister to MAY ECHO DAYLOR SEGIS KEVES, whose dam is a last sister to MAY ECHO DAYLOR SEGIS KEVES, whose dam is a last sister to MAY ECHO DAYLOR SEGIS KEVES, whose dam is a model of conformation. Will be last sister show the sister of the sister you have done you will be signed to make you have a sister you have to me round to the opinion that a poor animal is dear any price. Write to

A. A. Powers, Orono, Ont. WHY NOT NOW

KINO SEGIS ALCARTRA CALAMITY is living up to his royal breeding. His first chargeter made nearly 21 lbs. butter at 3 years oid. Four sons of King for sale pour sons of King for sale of the sons of king for our prices to 5 months oid; also 3 high-class youngsten Write lo-day PETER S. ARBOGAST R. R. NO. 2 MITCHELL, ONTARIO R. R. NO. 2 - MITCHELL, ONTARIO

READY FOR SERVICE

My herd bull is Sir Pontiae Burke, sired by King Pontiae Artis Can-ada and whose dam is one of A. C. Hardy's Imported cows.

At present 1 offer a 1'mon. bull of econd type, sired by herd bull arm dam of show type with R. of P. 12,509 Bs. milk and over 100 lbs. butter.

PRICE FOR QUICK SALE, \$125.

J.W. Johnstone, R.R. No. 2 Forest View Stock Farm, Hawkesbury, Ont.

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On the Banks of the Beautiful Niagara River

A few well-bred, young Holstein Bulls for sale. Also a Belgian Stallion, weight about a ton. Address,

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One of these new 1918 autos Or their full value in Cash.

Solve this Creat Moving Picture Mystery Over \$1600.00 in prizes To be given FREE

THIS particular Moving Picture Moving Pictur Theatre the name of the famous play-ers who would soon be appearing in the pic-tures were each night flashed on the screen. On this particular night the operator, wanting to play a little joke on his auda fittle joke on his audience, took the names of the players and so mixed up the letters in each name that they spelt out the funny sentences

out the lunny sentences you see above.
Time and time again this film was flashed on the screen only to be demanded back. Many of the audience are still trying to solve the mysterious names. Can you help

them? In case you are not familiar with the names of the popular moving picture actors and actresses, the list below may help you.

WHO ARE THEY?

1 PARCK MY FORD @ ROAM OR DIE ② A FOUND A GLASS BRIK ② FUN MUST DRAIN 3 MAKER A CUTER GIRL & A LETS BEN CHEW A BAD HEART (9NEVER LYE BABY



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Names of Some of the Favorite Players Names of Some of the Favorite Players hatele Chapin, Hasel Dawn, Francis X. Bushman, Betty Bayne, Francis Ford, Grace Conard, Margueritas, Clara Kinabal Young, Fannie Ward, May Linde Leith, Clara Kinabal Young, Fannie Ward, May Linde Leith, Chapita, Chapi

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