

ICE CUTTING IN THE WHITE MUD RIVER OF MANITOBA.
-Photo Courteny Colonization and Immigration Branch.

The Farm or the City
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Types of Culverts for Roads
with Hints on Their Construction, page 5.
A Year With Livestock in Canada
Reports of the Annual Breeders' Meetings.

Mme. SUNDBLIUS, newest of Metropoliten Grand Opera Stars, singing in direot comparison with the New Edison Re-Creation of Lar Alerions voice.


## ThisistheEdisonway!

The record of an artist's voice is not a Re-Creation of that voice unless it will sustain this test:

The voice Re-Creation it pliced on the New Bdison. The artits tuands before the instrument and aings-
Soddenly, without wanaing, the artint ceasea aliging and the New Ediron takes up the song alone.
The Re-Creation of the mrist's roike murt be no perfoct that those who listen, with closed eyees, cannot telf when the artik has cesed to sing.

## The NEW EDISON

## "The Phonograph with a Soul"

is the only sound reprodveing instrument which is submitted to this test, and the only one capable of sustaining this test.

May we unal you the drochare "Marie's Re-CFeation and the Boeklet, "What abe Critics Sags."
THOS. A. EDISON, Inc.,
ORANGE, N. J.

## Willit be a Dry Season?

You don't know-nobody knows. But if you take the precaution of proper tilling you will have as little to fear from insufficient moisture as hundreds of users of Peter Hamilton Cultivators last year.
Good seed deserves better treatment than simply planting it haphazard. Work up your soil with a

## Peter Hamilton Cultivator

and you'll get improved results, All teeth cultivate to the same depth and thoroughly work up every inch of the ground. Every tooth reinforced, each section
of heavy steel. See of heavy steel. See
this splendid implement before investing in amy cultivator. Company, tit.


When Writing Mention Farm and Dairy

## Holstein Breeders Have Good Reason for Optimism

## Registrations Total 12,919. Membership increased by 382. Increased Appropriations for Several Purposes, but Pasticularly to Encourage Test Work

BETWEEN 200 and 300 enthusiastic black and white fanclers gathered to the thirty-fifth annust con vention of the Folstein-Friesian As sociation of Ganada, held in the For. esters' Hall, Toronto, on Thuraday of last week. The reports they llstened to were well calculatad to engender optimism. Registrations to engender optimisan. heghips have andons and mem berahips have greatly increased. Transfers were more numerons than ever before. In only one department Was there a falling off-in official testing; scarcity of both labor and feed probably account for this. Seperal subjects of importance, such as apportionment of moneys in support of test work, and changes in tiae Rec ord of Pertormance regulations were vigoronsly debated. The lmpressita that would be left on any vialtor woud be that the Holatein Associalion is a very live and very vigorous one. Dr. Tolmie, of Vancouver; presided, in the absence of J. W, Rtchardson, who was detained at home by the denth of his father, Mr. Maft. Richardson.

The President's Address.
In Mr. Michardson's absence, his presidential addreas was read by Dr, Tolmie. "Agriculture is occupying a mone prominent position than ever Before, and it is fitions, for is it not one of the easential fndustries $T^{\prime \prime}$ sald Mr. Rlehardson. "In this world struggle we are beginning to plerce through he superficial and find the essential things. And so upon the farmer a solemn obligation is lald. His task of producing food-if he rightly regards it-is as great and sacred a task as that of the men on the battiefield." Mr. Richardson then expressed hia belief in the future of the breed, mentioning the markets which will open in the West when wheat drops from 82.21 a bushel, and in Furope after the war. During the past year the membershlp of the association incrensed by 382 now names, and thers were 1,000 more regiatrations, both of Which the president ciled as indleative of the rapid progress of the broed. Even more gratifying is the great increase in local clubs. In regard to oleomargarine, Mr. Richardson said: "It behooves every dairyman to do everything in his power to see that the butter substitute is banlshed from Canada at the close of the world strusgle."

As is practical breeder, Mr. Richardson advised attention to both type and production, as meglect of either will soon put the breeder "up agnalnst It" In regard to the form of the teat, Mrr Rtchardson did not commit himself in favor of etther R.O,M. or R.O.P. tents. He adviapd that controverny be refrained from, and that each breeder fotiow the test that best suits his conditions, "and let the other fellow do the same, without prafadiee."

The Secretary's Report.
Mr. Clemens mentioned the difficultles tinder which datry farmers are laboring at present. "Yet, deapite all these drawbacks," sald he, "our as sociation is able to show a degree of progress for the year which if truly remarkable. Our registrations ontnumbered those of the prevlons year by practically one thousand, reaching a total of 12,019 . That the demand for our cattle has not slackened is indicated by the fact that 10,656 certificates of transfer were ismued, a gain of more than 1,100 over the previout year: Our list of members is constantly and rapidiy increasing, 382 new names having been added during 1917, thirty. thee muly than in any previons year. The puly division of our business in which a falling off is shown is that of offieial testing, đue, undoubtedly, to Tha scarcity of feed and labor:
The secretary alked that breefers


AUDITORS REPORT, 1917.
Ralanee on hand. Peceipts.
1916 .............................st 1.940 .12 Megstry and tranafer fees Annual ding fses
Annual dues
Over-paymentis
Interest on banle inceount
Iterest on Farnin bonds
Interest on Kenora bonda
Interest on Waterios bends
Interest on Waterloo benda
3272,673.20

> Printing monount .......
Record of Merit prizeif
Recort of Porfin
> Record of Merit prisesimance prize Cirants to Fairinand Dairy Tesia Saluries, office staff and auditora moxpenses, officers and delegates tefunds
> Office furniture had supplies.
> Banquet expenses, Toronto
> Dangrat expenses, Guelph
> Branch Ammelation.
> Retentis
> Advertising, ..................
Canadion War Loan ( 3 Soo
> Banadion
> or Loan (3,500)
57.738 .44

Balances on hand. Dee. 31, init
182.19
$2,080.26$

## Statement of Assets and Llubitities. <br> Balance on hend Assets. <br> $\qquad$

Eenorate bonds
Waterloo bonds
Canadian War Lion
Camadian War Lann,$\ldots . . . .$.
Ortice equipment
Herd Bookn and Yoar Books.
3.080 .26
4.000 .00
10006

## Liabilities.-None <br> Grants to Fairs.

Grants to fairs were as follows: Toronto, $\$ 1,000$; London, $\$ 350$; Ottawa, \$350: Sherbrooke, \$150; Orms town. \$100; Valleyfield, \$50; St Scholaatique, $\$ 50$; Qnehec, 850 ; Hallfax, \$75; Charlottetown, \$75; 8t. John or Frederiekton, \$75; 8ldney, \$50; Brandon, 8200; Regina, 8125; Saska. toon, \$195; Calghry, \$125; Red Deer, \$135; Bdmonton, \$125; Lethhridge, \$75; Vancouver, \$125; Duncan. \$100; $\$ 75 ;$ Vancouver
Kamioopa, $\$ 59$.

In winter fairs and dairy tests, the special prizes for championships is each class over all reeeds were increased from $\$ 25$ to $\$ 50$, and the award tor grand champlonship was increased from $\$ 50$ to $\$ 100$ for the three dairy testa at Goelph, Ottawn and Amherst. Mr. Haley moved that the aasociation pay also tho expenses of the banquet given by the owners of the sweopstakes cow at Onelph, Ottawa and Amherat, the expense. not to exceed $\$ 100$ at any time. This motion gave rine to considermble discussion. L. H. Lipsit, R. J. Kally and others felt that the winner ehoutd be allowed the ploasure of entertaining his guents, and favored an inereased grant for the champlonship, rather than payment
(Contlined on page to.)

## A Trip to the City and Back Again

## While the Farmer May Not Make a Labor Income Equal to the City Workman, His Sense of Security is Worth a Lo

## F

 OUR yeare ago I lett the tarm. I am not so a niee my move now as I wan then. We had sood land an lien ontore tarm, my wife and I, of eg about anecthitd of thin value. We was mortgaged tor home and the wood lot on the hack of the comtortable wided fuel for the most of the year. Wee twe proworked on that farm for of the year. We two had We had increanad emr futery telt years. In that time cows to ten and the fen were tiert from three Jersey the three had been. Wre had much better cows than the fences and the We had improved the buildings, mortigagen with whith we We had pald off a chattel of a mortrura which we started and a small part eight yoars, however, fro proper. At the end of and there whis still il wea had little money ahesd gage. All that we had to show for eight years of hard work wha a IVving, our how for eight years offarm inplements stock and the farm implements, it didn't Jooks food to wo Fer nwiy fildas are alway areen and wo declded, after much discuaston, that wo could do better in town.
We sold the tarm and then we called a town. got rid of our ntook and equipment. And it was then wo found wo had not been doing so badty as we had thought. We dlacovered that our net assets the tarm eleht years nefore. Wee had started on we were getint years before. We had thought that we were getung only a living, while our sale proved This put a new gompleng a living and $\$ 400$ a year. deter us from momplexion on things, hut it did not that fa the elty whe to town. The wife thought sive our two litle would have a better chance to
 were nure that wro would wark easier hours and we An. Wound make more money An Unakilled Workman.
We lett the farm in the early spring of 1914. We had Intended to rent a sood house on \# tulet street, but inatead we foll tute the handn of a rean sentate man and purchaned a liome. The industrial boom of the previous two or three yeurs was then on the polat of collapse ant the pro-war depression was with us. Housen were for sale everywhere. We patit 12,500 for ourn, We couldn't have sold it for look for a months lator. Once settled I started to look for a job. I noom diseovered that no matter
 ratning rave mea a mred workman, though may farm found that there wrepe meechaich ins clas of labor gotting as himh al foar mollorma icn in certain lines of them had abent four yoars on a day, but the most tag their trade. It was a wase very poor pay learnhad expeoted to sommand wage such as this that It was, If wht threo moind rieht from the first. AB job at all, had in the menntime isecured a steady hole in our bank account for litne minde quite a fint position was with for itving expenses. My fobbing houne. Any with an agricuititural implement eners of fmplomenty princlpal worl was unlonding my farm experience that got me this them. It was day. Thad patd as math to met miorers on the sot $\$ 2.50$ a the buay neanon and had boarded them the farm in We got alone on that wourded them an well. we over did on the firm and by virtue of the fas thar' we owned the honnm and by virtue of the fact to pay rent wo would heve hered in. It we had had very much poorer section of the obliged to live in a cinten of our children would haye where the anso-
elt We found our chlldren would have been the worst We hombal tor, that it if linrder to be thrifty and some nelethherhood than in the country. In our olid thritty people . What ware surrounded by other ware patched. Other it the seats of my trousers were patched, Other farmars in the distriet wore patchein too. Not so in town. I could atill have worn atched troasers if I had wanted to, but wonla her out caste even with ky working men frlends by do-
fng so. Wife, ton, soon Pound that she had to put on In the more st; le (costing maney) to stand well in the eatimation of our neighbors. I don't want to give the impression that we were trying to "keep up With the Joneses" or anything like that. Our neigh. hors were working people tithe ourselves who speut at they made in an effort to maintain an atp of mid. die elans respectability.
An thave sald, it roade a hole in our surplus to carry us over that firat throe months. On $\$ 2.50$ a day we saved a little, but it was very little; and then the war broke out. Few workdng men will forgot that fall and winter. Hundreds were out of work. Employers took advantage of the situation and my boss reduced all his help 30 per cent.. On the two dollars a day we found tit very hard to make ends meet and I often wondered how noine of our neighbors got along at all. Occasionally I would be dropped tor a week at a time. Mpry timen we wished ourselves back on the farm, and for the frat time we began to appreciate the value of the living that Went with the farm-vezetables, eggs, millk, butter, mieat and flrewood. In town we had to buy every, thing except the few vegetables grown in our back yard, and even then we should have had that back yard for the idids to play in.

Better Times in Town
A labor depresslon was succeeded by a labor scar ity. War orders and enlistments resulted in a sonlob and found o wage ncale. I left my two dollar have drawn as haphece in a machine fhop. There I of everything we wear six dollaria a day. The price to everything we wear ar ant has gone up from 25 to 100 per cent, and these hlg wages ase not as big as they look. We did fairly wagl, however, and in the pert two and one-hall years have revor, and in losses of the firat year and gotten a litle and the Property valnes, too, heve increased and we can now bell our house for an much as we pald for ti. Town ife doesn't look bad at preaent. But we are not de-
ecived. We know that celved. We know that our present prosperity is war time prosperity and that it well cease when the

## To Farm and Dairy Car Owners

Hor more? Have you-mare three years of overhauling youe car, and pertice making your own repairs? If so, this mes sage is intended for you. The annual Autemoblle Number of Farm and Dairy is duted for the first week in March. in it we plan to run an experienoe meeting contributed by men who are "hahdy" with cars, and Who are therefore getting maximum service at a minimum cost. We know that there must be many such amone our readorn. For the beat letter telling of experience in over hauling and repairing the farm ear, or montioning precautions taken to secure maxb mum service, we will pay $\$ 3$. For all other letters used we will pay renular contrithutors' rates. The only condition is that letters must reach Farm and Dairy on or befors February 22nd. Photos of the cars aver hauled will aleo be appreclated. Here is an opportunity to tell fellow car owners Just how far they can go in eliminating garage bills, elther by doing their own repair work or by taking precautions to prevent repair work belng necessary.
war does. Then probably thaes will be harder than glad to get back my two dollar job I might be very ge a case of grubbing dollar job. It would then toil than any farmer is aver at more monotonous would any farmer is ever called upon to do. We would not even have improvements to represent nro gress. And as became older my wage earning be that the beyscrease. Our only hope would then I will be boys would help out the old folks.
still in my prime. Orr two so you will see that I am still in my prime. Our two little lads are elevern and hand years, respectively. We are in good shape to handle a fair sized farm. An exchange has been ar ranged through the medium of a real estate man Our house is to be given als part payment on a soo farm in the old neighborkood. The farmer at th ther end of the exchange is coming to get some of the same experience that I have had. I have not encouraged him , but he is determined and the exchange suited me- We have money enough for moderately good equipment. Perhaps we ere not thead as far financially as if we had remained on the farm. In fact, I am sure we are not. We are, however, richer in experience. I will now be conented with the farm. I have found out that compared with the laborer's work, farm work is not monotonous. I don't belleve that the farmer's refurns are as great as they should be, but thare will be lots of fresh air and lots of room for the children to play-and that is worth something.
The good wife has fust read over the foregoing manuscript, corrected the grammar and improved the English in spots. (She was a school teacher When I married her.) She instructs me to add a "hear, hear," on her account.

## Eradicating Tuberculosis from Dairy Herds

## A Criticism of the Field Method

TFipld Meutined and known as the Fred. F Cathle ine of Eirnatcating Tuberculosis in Dute'land Farms, Massachusette, It was flrst outlined by Mr . Field at the annual meeting of the Holstein Association the pest summer and because of its practical simplicity and fmposing efficiening, the members of this organization voted to difitribute a pamphlet outlining the procedure. This pamphlet was reproduced in Farm and Dairy in tho latter part of 1917. The plan consists of three maln polnts: 1. Sanitation as regarda sunlight, ventilation. cleaniliness and disinfection of the calf ent cont. barns, utensils, and attendants.
2. Use of the-sputum test to inolate "apreaders." firth, and not alloming thised milk lo galves from or $\operatorname{tanL}$ as the questlonable to use the same trough

## The Method Critelized.

Frotions if thls metthod of College of Agriculture, capable of wide application Wradicating tuberculosi Dalryman recently bie endorses Writing in Hoard's tails of the method but doubts if fialry farmers generally are in a position to pasteurize all milk for calves with the thoroughness necessary. Eapecially does he call in question the sputum test for preaders," He writes:
ttention should be directed however, to which special flcally states: "The object of this paimphlet spect determilie whether the cow is passing teat is to nose or throat the infectious tubercule of biflif which (Continued on page 13.)


British Calumbia's Returned Soldiers Are Anxious to Farm.


## Results from Commercial Fertilizer

## And Some Advice as to Their Use

I
 E.I., Kentville, N.S. Freder ottetown, P.
B., and Cap Rouge, P.Q.) which included a plot that received (in 1915 only) 266 pour ') of niltrate of sota and 570 pounds of acid given. The crup rotntion consiated $x$ 解 hay, and the raselis tor the first asi sacond years are now av-itable.
As compared with the average yleld from the untertilized the ck phots, the plot treated with nitrate of soda and $201!$ ohosphate produced, at eaca of the Tour Sta: 1073, a very a ${ }^{\text {asetantial and proftable in- }}$ crease in both years. The averago crop increases from the fertilized plot over the average yields from the unfertilized plots were as follows: 65.09 buikels of potatoes in 1915, 5.72 bushels of grain (oats) and 448 pounds of stzaw, per acre, in 1916.
Assuming that in normal trues potatoes were worth 50 conts a bushel, oats 50 cents a bushel and straw $\$ 4$ a ton, then the value of the increase for the two years would amount to $\$ 36.30$ an acre. Taktnif nitrate of soda at $\$ 3$ and acid phosphate coontaining 16 per cent. available phosphoric acid) at $\$ 1$ per 100 pounds, we find that 266 pounds of the former and 570 pounds of the latter would cost approximately $\$ 13.70$ which, deducted from the value of the in crease, leaves a proft of $\$ 22.60$ per acre.
At current tharket values, potatoes are worth at least $\$ 1$, and oats 75 cents a bushel, while nitrate of soda costs in the neighborhood of 86 and actd phosphate $\$ 1.50$ per 100 pounds. On this basis the crop ticrease has a valvg of $\$ 70.28$ per acre, and the fer
tilizer-costing $\$ 24.50$-leaves a profit of $\$ 45.78$, ait compared with $\$ 22.60$ per acre, when the varlous commodittes were valued at normal, pre-war prlces.

Factors Which May Influence Crop Vlelds.
While the foregoing are actual results obtained by careful investigation, it does not follow that ferti. lizers, similar iarkind and quantity to those employed in the experiment cited, may invariably be depended on to bring equally favorable returns. Seasonable conditions-periods of drought. excesaive rainfall. etc--may and frequently do prove the limiting factor is production. But a readily avaitable supply of plant food in the soil will enable a crop to recover more rapidly from or withstand adverse weather conditlons.
Suggestions (modifed by present circumstancen) for the fertilizing of a few of the more fmportant farm crops are made, as follows:

Patatoos, Mangels, Corn-
Acld phomphate
Curnido-
Nitrate of eoda
Acld phomphate
Grain-
Nitrate of moda
Acld phomphate
Hay-
Nitrate of soda
Acti phomphate
The foregoting arbitrary, for Ia praction un of find two soll which exhibit exactly simiter charactoriatios. The

Individual farmer must be his own experimenter in determining the peculiar deficiencles of his sof but may, nevertheiess, be guicec by these suggestions. The high solubility of nitrate of soda renders it generally advisable to apply one-half the prescribed quantity of this material with the phosphatic fortilizer during the final light cultivation of the land preparatory to seeding, the remainder-mixed with a quantity of soil to facilitate uniform distributionbeing given as a topdressing shortly after the crop npper ris above ground.
Unleached wood ashes-already referred to as a source oi potash-may contain from 4 to 6 per cent of potash, about 2 per cent. of phosphoric acid and from 20 to 30 pe; cent of lime. For ere, $\mathrm{l}^{2}$ o h as clover, beans, peas and other legumes, witch respr ad partleularly to applications of lime and potash, wool ashes should prove a most valuable soil amendment On light solls especially their use as lltely to be attended by very benefficial results.
To avold delay and disappolntment from freight traffic congestion and other causes, ord ara for fortiliners should be placed at the carilest possible opportunity.

## Keeping Records and Selecting Sires

## As Seen by Mr. Chas. F. Whitley

DOES it pay to keep records? At a recent auctlon sale two herds of equally well bred cows aged \$155; the other lot, with records, fetclied an average price of $\$ 308$, more than Iwice as much. This is a second indication that it pays in these modern, busy times to regard cow testing not as a mere unimportant incldent, but part and pareel of one's main occupation.
Arising from that is this thought, a man here and there may be overstocked; others need more; might there not be established on this as on the other side of the line, dairy cow exchanges, whereby every usefut cow could be placed with some farmer who Wants her, and so halt the weary procession to the slaushter house? Surely we are scarcely acting wisely when cows giving upwards of 8,000 pounds of milk are being sold for beef?
Closely connected is the exchange of good pure


Growing Hogs to Beat the Huns.

bred dairy aires, advocated so freqcently, for it is sood modern nolicy to save, not kill, them before their real value is known. Just recently \$1,000 was indscovered fine prepotent sire whose worth was extract Are wenot Ilterally and entirely depentee upon that marvellous ingrained fenture of heredit In the pure bred, abllity to tranamit propedy gually? One of our recorders kept trael of the performance of daughtern of two pupe crack of the the same breed in one amail ilstrict and found at of he same breed in one smail diatrict and tound a dif ference of aimost $\$ 600$ in the value of the butter in one year. Let us save those good sires.
Legislate Against the Grade Sire.

Is the modern dairyman to risk any kind of pure ored siro before time discriminates dairy merit; or worse still, should he use a grade? You remember Wo have en Ontario law against a grade stallion It is but e step now towards regulating scrub dalry nires. Let us samember we cannot expect improvement from the gradis; we rightly demand it from the purs bred. Ow recrrders in 35 districts report that out of a total of 5,620 sires in use, 47 per cent. are grades, and out of the remaining nure breds, onethird are poor, undesirable. We aeed more fore. elght.
Wee all know thet the richly brod sire, presenting finest individuality combined with extreme dairy capacity, a triumph of the Canadian breeder, is worth bis money (he can be purehased cooperaitvely or obtained from the Dopartment) when records show that he las 40 or 50 daughters that have given over 2.500 pounds of milic in a month, or when mated with grade cows he has far more than doubled thelr yield of fat in two generations; so, plainly, the modern dairyman ean scarcely afford to overlook the fmportance of this factor as shown by dairy records:

## Cash Crops for the Dairy Farm

And Why Successful Farmers Favor Them

YEARS ago, and not so many years efther, the farmer was being told that he must specialies in his production. In fact, specialized production was almost as popular a cry in those days as is increased production to-day. Some are still re-
in as and is increased production today, Some are stilt reof the fact that farm surveys have long since demonstrated that too intense speciallzation is not only inadvisable but actually unprofitable and that the great moforlty of successtil. farmers are among those who follow a diversiffed practice. Prof. Warren, of Dornell Universty, whom itheari versity, whom it hear speak at Guelph shortly after he had made his finst farm survey, was the first to clearly demonstrate this fact, Our own professor, H. H. Dean, announced not long ago that on. a well managed dafry form onty about half of (Continted on page 13.)

## Types of Culverts for Roads

## With a Few Hints on Their Construction-G.Hoganh, Engtneer of Hiehsoans, Ontaric

CULVERTS are required acrosn highways in or or away from surface water to dr in through way. When timbe. was plentific in of the road tario, many of the culverts and short bridgern On constructed by using the uearest trees The were of the cuivert so built was fmmaterial as tmber size plentiful, so by making a wion opening for the wail vert, the sides were placed well up on the hank the creek, and the work was expedited the bank of ing given such structures was usually of sufficient width but the floors sometimes wero placed lower than later experience showed to be the correct height, and washouts resulted. Many of the old cedar culverts have given good service and t timbers in some are atill sound. Muntelpalities having charge of such culverts must inspect them from time to time to be sure they are safe for the increas ing loads passing over the highways, and occasion ally renewal of such culverts is found desirable. According to the size of the culvert it may be re newed by using such modern material as conerete, corrugated iron or vitrified clay pipe. In some localities concrete tiles are made, and for small openings of from 12 inches to 36 inches in diameter, these pipes are thoroughly satisfactory.
Pipe culverts may become obstructed with trash or choked with sediment and so will require ocessional cleaning. On that account it is advisable to When buitding the culvert the inches in diameter Wt the proper the culvert the plpes should be placed ton, be laid to ath on a solid earth or clay toundaof the water, theis carefully in the direction of fall compaeted. A concrete end wall should the earth

## from 12 inches to 72 inches

 and any length desired. such pipes are easily handled and quickly fnatalied. Care is necessary in backfilling the trench after placing the pipe and thor ough pounding of all backfilling will result in a satisfactory installation being secured.Vitrified pipes are used as culverta and varying sizes from 12 inches to 36 inches in diameter may be purchased. The same rules that apply to the raying of concrete and


The New Flemming Bridge at Markham in York Co., is of Conereto.
Sridgea are Durable Material and Easily Constructed.
the laying of these pipen Such pipes tre usually unif good results when property in strength and give An important detail ti ail installed.
Accidents sometimes happen due to short length and it will be found bent to make short culverta umple length. No culvert should be all calverts of the width of the travelled sortlay of be shorter than is usually from 20 to 26 feet. When rondtalling a permanent calvert, the latter length is istaling a is it provides for futare improvencnt is desirable, The cost of the different kinde of
the same in all localities, so that figurests is no in one township or county wonld nigures obtained tame work done in another township or to the Knowing the local prices it in township or county is a simple matter, how-
ever, to estimate on in. ever, to estimate on in-
staling any of the above
For the use of municipal officials the Department of Public Highways has Lssued a pamphlet entitled Heneral Pians for Steel Highway Bridges, 1917,"
and in that-pamphlet deand in that-pamphlet de-
tailed designs are given tailed designs are given
for the various culverts for the various cutverts
usually built in Ontario. A copy of this pamphlet to those interested charge to those interested in the construction of bridges
and culverts. Even though and culverta, Even though
municipalities may not be municipalites may not be
carrying on an extensive carrying on an extensive
good roads campaign this ear, they cannot afford to allow their bridges and culverts to fall into dis. repair.

## in Aprll, 191: Soe thation and shows the old briage near Clydenvile as Tt nok-

at the ends of the pipe to prevent the wash of the rater undermining and destroying the culver
For the iarger size culverts a square concrete box may be built. The aize of such a structure will yary from an openimg wo feet wide and two feet high to an opening 10 feet wide and 10 feet high. The top of the culvert will be eight lnches thick for a span of four feet and the thickness will fncrease to 11 nches for a span of 10 feet. Proper reinforefng of the top of the culvert is required and either bars, expanded metal or wire mesh may be used to give the necessary strength. In building a square box aivert the bottom may be left out ent a foumiation run down to a depth of two or three feet under eoch of the side walls. Thls enables the deepening of the watercourse through the culvert at some later date, without going to the trouble of breaking out the con rete slab forming the bed of the strig out the conIf the- forming the bed of the stream.
water, the headroom from 10 to 12 feet above the atruction of a concrate sufficient to permit the conures may be used tare arch culvert. Such strucbrldtes. In decifins on sulace worn out timber be exerctsed to mate the new culvert care should to carry the spring flonds. new culvert large enough When using pongrots.
culverts, the cleanest and either plipe, box or arch renults. The proper and best gravel will glve ldeal important and pooper amount of cement to use is mixing bove bag of coment with be secured by cuble feet-of gravel. Water with from four to five give a wot grive. Water in sufficient quajitity to and the enttre bitch mixture should be added over at least fee tmes aroughly mixed or turned In the forms, spresal it As the concrete is placed into place so that it out in layers and tamp it well fecurad
Corra
ket for some cuetal culverts have been on the mar ket fiq some tine. Any dtameter may be obtained

## The Story of a Barley Field

## Untested Seed the Cause of Heary Loss

Lsome season a farmer living near Ottawa rented with clover and timothy, he was to seed down ed torty dollars' worth of barley wish field be sowTwo members of the seed Branch witch he bought riculture, Ottawa saw this branch Department of Ag. harvesting. A sample of the bariey it wasn't worth cured and tested for vitality bariey sown was proof it grew under most favity and only 8 per cent of it grew under most favorable conditions. Such a mistake as that was, to
is almost unpardonable, when every unpardonable. when every farmer without much trouble can for test his own seed for vilality of have it tested at elther of the Dominion Government seed laboratorles, located at Ottawa and Calgary, free of charge. It sent to the Ottawa _aboratory no postage is required on samples up to eight ounces. Two hundred or more seeds are required to make a rest. Better to send four hundred seeds in case a duplicate test is needed.
Not only wes thif crop not worth harvesting, but ber of mustant and a num well as other weeds had


The New "Robertson's Bridge" at Clydesville
Thas illustrates the new bridge as it appeared in september, 1315, before the tem.
porary bridge had been remeved. The heavler traffy of the preient day tlemands
that our bridgen be staunchly built.
the glorious charce of growing to perfection and dropping their seeds to the soil as well, as the isfied of the field didn't look after it. He was sat isfied to have it seeded with grass seed. See the irreparable loss arising out of this transaction. The farmer loses his $\$ 40$ worth of seed, which might He lont his had be known its lack of vitallit and seeding it and labor in preparing the fief he meeding it and the value of a goot crop which had no chane had, had the seed been vital. He be left seeded.
There are some phases utor has no exact knowledge, as in case of the operther. He may have only a partial know the wea the avallable fertility in the soil. He may ane of able to prepare the seed bed as he we may not be he has no excuse for not knowing how wital hise; but is, and he may learm about ita plalty vital his seed much good land has been practiy as well. How growing pure seed, and in some cesen inforlor for Just becanse the farmer flin't casea inferior crops, sowing with his sood seed in the form ot he was seed in the form of noxious I wonder
elge that seed corn is experience and the knowl vitality thls year, many farmers will he of very low a fallure or partial failure of theil be caught with this year 1918. when extra production corn crop? In we cannot afford to make any is absolutely necessary. fitality of our seed. Now ts then be sure of the seed grain ready. Don't lonve the time to get our fed to stock, or until the ground is ready to work

Rape as a Weed Eradicator
One Efficient Way of Using It

TProf. J. E. Howitt, O.A.C., Guelph, Ont sow thistle and twitch destruction of perennial efficaclous in Experimental Unlon been proved Ivate the field until about the middlen work. Cut ing over it frequently with the culte of June, runkeep the tops down and thus weaken tor so as to Then apply manure at the rate weaken the "roots," aere ( 12 sood loads). Cultivate the 20 tons per thoroughly, and with a double meld the manure in ly ridge up the land, snaking the ridgeard plow slightapart. On the ridges sow pasture rape at 26 inches of 1 B g bis per ficto it is pastare rape at the rate amount of rape should bo sowntant that the right

# PEDLARS' THE MOST CONVENIENT, ECONOMICAL AND DURABLE CULVERTS THAT MONEY CAN BUY 



 should took very eapefuliy into the question of culverts For, upon the riant nelection of
cuiverth larsoly deponds the permanence of a Mighway.
There are many Ways throwiahout the world, but the tope of high-
 Cuiver:
Among the many impariunt reasons why Pediar'll
Perfet Tourgin Metal Culyerts are preferred to all
othera are othera are thene:-In पhe frot phace thered to all polnt of greater convenience in hindilise A Peatar
culvert le ohiped from the factory to the job in one plece. It is rolled trom the frolioht ear to in
wagom transported to the point at wahth it io to

 culverts there made of the for durability. These Toncan Metal a metal that has the property of rei
sinting corroilon in any form. Toncan metal will sisting corronan in any form, Toncan metal wilt
rematin for many years fimbedded in the dump earth, Without showing the leardded in the damp earth,
This metal, even if formed ign of doterioration:
 woul make a sood eulvert but when the evin.
drical shape it einforced by deep corrugations its
atrengh strength fis vaity inceased deep corrugations its
Expertence has khown coneluilvely that Pediar'a:




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## Ayrshire Breeders Endorse 300-Day Test Convention Reports Good Results From Advertising. Wants Dairy Standards Act Enforced

A
 wards placing the R. $O$. P. work onvention of the Can, the annual conventor of che Canaduan Ays. week in Toronto when week in Toronto, when a resolution was passed, "that the R. O. P. test be changed to 300 days, with a time limit for treshening of 390 days." The convention deaft with many matters of
intereat to Ayrshire breeders, inintereat to Ayrshire breeders, in-
clading the appolntment of an adverclading the appointhent of an adver-
tising committee, the granting of $\$ 200$ to the Agricultural Relief Fund of the Allies, the appointment of a committee to deal with the organization of a national live stock winter falr, and a request that the Dairy Standards Act be enforeed in Ontario.

> President's Address. W. Wallitye.

Mr. W. W. Ballantynes, retiring president, in his address, dealt with the infustice of paying for milk by weight, whether sold to cheese factories, creameries, condenserles, or the ctty mithk trade. During the past year further experiments have been carried on with cheese from mike of proved that the quantity of cheese per 100 bn , mflk varles dtgectly with the fat content.
One of the arguments againat the Dairy Standards Act was that the variation of fat in milk sent to cheese factories was so slight. that practically no injustice was belng done. To show the fallacy of this argument, the Ontario Department of Agricultiure, through Mr. Frank Herns, Chief Dairy Instructor for Wertern Ontarlo, made teats of nearly 9,000 samples of milk of patrons of cheese factories last season, belng all but two factorles in hfs district. The reaults are as follows:
$2.6 \%, 102 ; 2.7 \%, 94 ; 2.8 \%, 349 ;$
 $8.5 \%, 595 ; 3.6 \%, 605 ; 3.7 \%, 185 ;$ $2.8 \%, 211 ; 3.9 \%, 73 ; 4.0 \%, 100 ; 4.1 \%$, $26 ; 4.3 \%, 12 ; 4.4 \%, 10 ; 4.5 \%, 7 ;$ These tests indicate that the chlef variatiuns in the percentage of fat in the milk sent to cheese factories in Western Ontario is from 2.6 to 4.2 or $1.6 \%$ difference.
As breeders of Ayrshire: cattle," said Mr. Ballantyne, "I claim we have a monstrous grievance. The average test of all the Ayrshire cows that have cualified is $4.1 \%$, while one-thind of the patroni in the foregoling tents were $3.1 \%$ or under.

Butter Fat vs. Butter.
-I also feel we are justified in asking legislation from the Federa! Government on another matter of vital importance to the Breeders of Ayrstire Cattle, and that is to compel all breed associations to publish the results of all testh of any specified time in pounds of fat, instead of but ter. My contention is that butiser reckoned on the 80 c , bals is frand pure and simple. The average farmer belleves that it is an addition of 1.5 to the fat reading. whereas it is legally an overrun of 1.25 . Only last legally an overrun of 1.25. Only lisst summer, one of the mont inteligent atood that the $80 \%$ basis represented stood that the
"And white f am talking of tests, I wish to refer to the R. of P. 300-day test As a war measure, I velieve it should be adopted. The a65 day test tends to decrease the normal produc: tion. In that instead of a 13 montb 13. 14 and even is a tendency to run to 13. 14 and even 15 months. I personally favor the 300 day test with a limit for freshening of 390 days. "I would suggest your careful con.
sideration of an expendtiture th the way of advertising the undoubted suitability of the Ayrititre ifi tio rapidly opening up of the new territory, known as New Outario. As augtory, known as Now outario. As aug-
geted one who has had some ex. perlence the past year in taking a number of grade Ayruhires to the sotal by auctlon, It misht be well to cont sider the advisability of placing a few good bulls five of charith at cent tral points for wee of chargt at centraide points for use of the settlers to grade up their herds. A good field for dairy cattle is also opening up throughout the west, especially in Al berta."

## The Secretary's Report.

A good year was reported by the Secretary, Mr. W. F. Stephei, of
Huntingdon, Que. The present men Huntingdon, Que. The present mem: bership of 1,531 shows an increase of 166 over last year. The total regis. trations were 7.634 , showing an in crease of 368 pedigrens
In record work the year has seensome advances, chlet being the achievement of Grandview Rose, own. ed by shannon Bros in masaine the $20,000 \mathrm{lb}$. mark in milk A. 8. Turner a Son's Lady Jane made a splendld record at the Cuelph Winter Fitr, produeing 250.6 Ths milk and 8.64 Th fat in three days. "Tr P.O. mald Mr. 'Stephen, "we recelved 659 applicattons ss against 708 fn 1916 , i appitications as against 708 in 1916 , a
decrease of i9. There was an in. crease in the number-qualiffed- 212 compared with 197 last year. Increas es in the average of millk and fat is es in the avcrage of milk and fat is
noticeable. Altogether 1.091 cows and
helfers have qualified. Whe ans now heifers have qualiffed. We can now report 52 bults regiatered in the R.O. P., there being sfix reported to us in 1917
"The record work ts of great value to our breeders, $80 \%$ of Inquiress want stock from reeord famitiea. The blg records are the best advertisers. One good record in a herd is of more value than a lot of ovilinary records. Ayrahire men must do more record work if the Ayrahire cow is to receive the prominence, recognition and place
the deserves in the dairy world. In The past we have boasted of the splenald types of the Ayribire. In the fiv ture let us boast of type comblned with large records of milk and fat This is what the new breeder is lools ing for In foundation stock, and we must meet him or he will turn to the breed that has lig records behind it. Shall we put on a r.O.P. campaign and urge our breeders to get finto the records? We would find it protitable to do so."

## Finances.

"The receipts," stated Mr. Stephen, were $\$ 12,108.56$, and the expendtitures 513.746.70, exclusive of the amount invented in war loans. This expenditure includes $\$ 1,660$ of last year's liabilitles, increased cost of printing, amounting to over 3300; $\$ 100$ to the Canadian Patriotle Fund, and $\$ 594$ for cow and bull diplomas (an expense that will not come in for several vease al we ordered 3.108 of the former and 540 of the latter) fac former, pended on the 1010 a $\$$ andinime ex tract and 8604 on the 1917 cog conalno $\$ 197$ men also $\$ 127$ on spectal advertising
The executive authorized me to inVeat $\$ 4,000$ in the war loan last March. and $\$ 1,000 \mathrm{in}$ Victory Bonds last fall. This latter will be patd tir instalments, and when fully pald on May 1st, we will have $\$ 5,000$ of our funds invested drawing $51 / 25$ interent."

Feeds Will Be Scarcer,
Mr. H. 8, Arkell, speaking before the convention, stated that we may expect the margin or surplus of food. stuffe to steadily decrease. This is particularly true of our fmports from the Enited States. The Department of Agriculture has now entered the feed market and has authorized the purchane of large quantities of corn and this should be available for feederi before spring. They have alao bought 10,000 tons of ofl cake in the U.S., and will go on dolng all they can to relieve the situation.

It will be necessary to conserve (Continued on paim 15)

Jersey Cattle Breeders Report a Good Year Registration and Membership Increase. No Change Wanted in R.O.P. Dominion Organization of Live Stock Nlen Approved

"W"W ${ }^{2}$ have had the best year in Bull, of Brampton, who presided O. the annual meeting of Canadian Jersey Catte Club, in the absences Jersey President, Mr. John Pringle, of London. "Registrations have increased by 400, transfers have increazed, and our
recelpts are more than recelpts are more than $\$ 600$ greater than the previous year," Mr. Bull referred with pride to the R.O.P. record
of Beauty Mald, the highest in Cone of Beauty Mald, the highest in Canada of any breed for the year 1917. Regis-
trations have doubled in Quebec Prov trations have doubled in Quebec Prov ince, and the suggestion was made that British Columbla should be represented on the directorate
The secretary-treasurer reported regIstrations of 1,703 , as compared with pared with 1,000, and fransfers, as com. pared with 1,000 , and $\$ 657$ membership foer, as compared with $\$ 608$. The
membership now numbers 447 . The membership now numbers 44.- The
financial statement was as follows: Inancial statement was as follows:
Recelpts. Canh in Hank, Jan. Pelpts. 1917
Registrationg Names, Iferd Farm Membliferd Regiaters... $92,633.90$
Bank Interest
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$\begin{array}{r}83.190 .90 \\ 48.13 \\ \hline\end{array}$
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Advertining
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the meeting considering this a Govchanges in rulings The suggeste] R.O.P. test were nlso passed over the of the breeders in attendance seeming well satisfled with the 15 months period. period

Age of Breeding.
ting was asked
The meeting was asked, for its opin registration to calvability of refusing under 18 months old. Mr. Trom dams of Owen Sound, thourht Mr. Thompson, tion should be refused if registrawere under 22 months old when dam ening. In opposition to this siew Mr Alexander, of Hillhurst, Que, Mr . one helfer of his, dropped by told of only 16 months old, that freshened at 25 months, and made 500 thes of fat and $9,000 \mathrm{lbs}$. of milk as a two-year-old He satd he would "hate to see sueld. heifer disqualified." Another breeder declared that one of his helfers freater ened at $141 / 2$ months and "madeshgood a cow as there is in Canade" as Tas dectued thint these calresa. It cepted, but that the practlee be ac be discouraged the practice should Representati
Representatives to fair boards were
appointed as follows: Toronto, D. O Archibaldaw, Mr. Hurdman and E. S Mr. O'Br'len London, Jno. Pringle and mended: Toronto, J. Lee Alexander and Mr . Hugh Clark, Georgetown: Ottewa, Gordon Duncan: London, J. M: Dolaon: Sherbrooke, Prof. Barton Quebec, E. S. Archibald. Fair grant were the same as last year, except that the British Columbla gra:t was made directly to the newly or ganized Jersey Assoctation of that province. In connection with the registration of dead ancestry the directors took the view that a nominal charge of 50 c should be made to cover each registration.
T. Q. Spaulding made a popular sug: gestion, when he asked if arrange. ments could not be made for an ex. cursion to the next National Dafry Show at Columbus.

Election of Officers.
President, D. O. Bull, Brampton; 1st Viee-Pres., J. Lee Alexander, Hillhurst, Que.; 2nd Vice-Pres., Gordon Duncan, Todmorden; Directors-J. M. Dolson, Norval; R. H. Barton, Chilliwhek, B.C.; Geo. Boggs, Edgeley; Jno. Pringle, London, and R. J. Fleming,
Toronto.

From one half to one pound of grain per ewe per day for a month before lambing will Insure strong lambe.

Noted Holstein Breeter Gone $F$ ARMERs generally, and Holstein of M . th regret of the phatill learn of Mathew Richardson at his homo in Caleaunia, on Feh, 4 , in his 74the in To all admirers of the Holstals cow Mr. Richardson was well hoisteln cow, of the pioneer Holateln breeders of the Dominion, entering thy pure-bred field some twenty-five years ago with his son, J. W. Richardson, and laying the foundation of what for now faym the the Riverside Herd.
Born in 1844, of English parents the age of 21 he purchased his first 100 acres at Riverside Farm, and proceed ed to work out his idens of arriculture. Always a broad-minded and enter prising farmer, Matt., as he was familiarly known to his friends, was quick to adopt any new method or modern innovation that wotld farilitate vor on the furm and make him a beer farmer. About six : ears ago he etired from the artive management of the farm, leaving his son, J. H., in harbe. An active worker in other waint of activity, Mr. Rtchactson Wan at one time president of the Cale omia fir Board, and has been pres (s) Caledonia Dairy Co since Besides hin
Besides his widow, he is sarvived by sisters. J. W. Richardson, and fou sisters.


January 29, 1918.
Dominion Organi
A letter wasganization Endorsed. Live Stock Recorder, sugresting the formation of a Dominion-wide organlzatect the live stock interests, to prolect the intereats of live stock men and farmers generally. The letter krew out of the proposed increase on rreight rates to which live stock men are opposed, but found, when they desired to volee thelr opposition, that they were withont a reprasentative hody through which to make themselvep heard. Mr. Brant's concrete suggestion was that each assnciation contribute five to ten per cent. of thelr gross revenue to support such an orminization, and empower their exeauves to, act in its formation. Mr. Brant, J. Lee Alexander, Geo. Pepper and J. . . Brethour, all spoke in favor of such a move, and the meetting approved of it by a unanimous vote.
Mr. D. O. Bull told of the proposa of the Hamilton Board of Trade to facilitate the holdfing of an faternation live stock and datry show in their eity. He sald he favored the holding of such a show, but suggested that all elties be given an opportunity to bld for il. A letter was read from the Canadian National Exhibition Board suggesting the holding of a aimiler show on thefr grounds. Mr. Brethour took exception to this letter on the ground that it guggested a show which would not be controlled by the breeders themselves. Such control, he thought, should be insisted on, no matter where the show may be held, Mr. Gordon Duncan moved, sec. anded by Mr. Jas, Baggs, that the exe. entive be empowered to deal with the ruestion of an "international," and appoint delegates to meet with reprechuatives of the other assocfations. Carried.
ion that the Clab con on the auggeeAgricultural Relief of the Alles Fund,

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the quality and flavor of cheese, cotthe quality and favor of cheese, eot:
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## HYLO. SILO

## Sweet Fresh Ensilage

 down to the laet forkfulTHE HYLO SiLO prer

 Sine Sine
Wrat
When
 N:

## Alberta Farmers Hold Record Convention

## 1,800 in Attendance. <br> H. W. Wood Re-elected President. <br> Membership Fee

 Doubled. U,F.A. Will be IncorporatedTHE (enth anaual convention che United Farmers of Alberta, eld to the provievens conventiolis and the prorince, both in atter datice and in the amount of tmport ant busiaens trasascted. The convention was held in the finst Maptist Church, Calgary on Jan. 22nd and 23 rd and at fow of the meet'ggs were there less than 1800 in attencance. This does not include the 150 delesates $e$ ad the lake number of viettor $\checkmark$ the cenvention of the Unitel Furn Women of Alberta, wheh was held during the adme days.
The U. F. A. is one of the most demoeratic and progreadive organiza. tions to be found in Cavada, While enthuslamem runs high at the meotings, the keynote is moderation. The premh. deat, Mr. H. W. Wood, of Carstairs. is recoenised as ons of of Carstairs. ngricultural landers of the ableat day That his pualute the present ed by the anow ition are recogmiz the thet that herlat avinced trom the faet that was unanimously re elected president for 1918. In his presidentina address Mr. Woof's strongont appeal was for the produe tion of foodstuffs.

Presidential Address.
The situctlon to-day," said Mr. Wood, "la that one of the weakest points it our military estrength is food production, The Alles have got to produce every pound of meat and every bushet of grala they cal. More ospeciany is thi true or wheat and pro products thre) scarcity of these the Almod cuuter the suecess of 0 Alhed cause
Simple duty calls to each and avery farmer of Alberta to produce all he oan ull this war is over. The war, the actual conilict, has reached our farms. We, the farmers of Alberta, may lone or win this aght.
When did we ever have such an op. portunity to show to the world our spirft, to lay bare our very souls, as we now have in meeting the stera and exacuing reaponaibilities brought to ue by mis relentless war?
"We will emerge from this supreme teat an irroalatible force in the defence of our own rights, kid a mighty power in the affairs of Canada, or we will emerge from it a discredited class, with none so poor as to do us honor. "It has been charged by those whe fear us and would traduce us that we are heartless, selfish pronteors. The very fact that the prices of all things we buy and all things we alll ame tet by others, brands this statement as atterty' false and contemptibly mean. cTbe world tr tacing tanise Tamine threatens the defent of our amile Not hunger onty, bet ularvation is. staring millions of helpless people in the face Erery or hel of wheoplaren pound of meat we produce me, every pound of meal wroduce means the alleviation of suffering, the preservi tion of life. Every ounce of meat or brill we can sary by atrict economy will help. Then, God helping un, let uis do our best."

Seerstrry's Report.
A healthy growth in the membership of the U.F.A. during 1917 was reported by M. . P. P. Woodbridge, Secretary of the Asoociation. The membership has grown ateadily from a litile over 2,000 in 1909 to 16,469 in 1917. This year showed a substantial increase over the 1916 membership of 13,996 . Over 100 new locals were organized during the year, and most of the old organizations report increased membemhip. In fact every constituency in the Province with the exception of Macleod, Medicine Hat, and iethbridge. increased its memberahip from 16 to 125 per cent. The premser local, Leduc, now has a paid-up memberuhip of 433 .
The financlel statement of the Association showed oash in hand or at bank as $31,694.54$, with amounts receivable 5152.60 , and supplies on hand 3424.22. The aurplus over all liabil.
ties was abown to be $\$ 2,755.77$. In connection with the truat fund account, the U.F.A. recelved and dispersed under various patriotio funds during the year $\$ 18,269.41$

Membership Fee Doubled.
On a practically unanimpus vote the annual membershilp fee of the Association was increased from one to two doilars. Sevenal speakers polnted out in this connection the importance of getting organizers to work and of car rying on more educational wors in connection with the Association, all of which requires money.
Considerable discuasion arose over the amending of the constitution to permit of the raising of the life membereship fee. The resolution, which was finally passed, read as follows: That section 15 be struck out and the following sect'on subatituted there for:

1. Any member of a local may, upon payment of a fee of $\$ 15$, become a life member of the Association. From and after the flrst of January, 1919, said fee shall be $\$ 25$.
2. All life memberuhid fees shall be held as a reserve fund under the direction of a reserve fund trust committee, to be nominated by the central board from among its mem iers, for investment in Dominion of Canada war bonds, or if no war bonds are offered for subseription, in first mortingns ot otber approved securities, and the inoume therefrom shall be used under the direction of the sald trustees for the purposes of the Association.
3. No part of the aald reaerve fund other than the income therefrom shall be used or expended by the central board or sald committeo without first obtaining the sanotion of the convention.

Important Resolutions Passed.
Over 60 resolutions were brought up for the constderation of the convention, and many subjects of importance were dealt with. One of the subjecte that took up most of the attention of the convention was that of hail insur ance. The convention drew up a munl. eipal cooperative hall insurance cheme, which will be presented to the Legialature at its next sesilon. Under this scheme the interests of the small farmer will be conserved, and in case of a crop falure farmers will be allowed to withdraw for that season, and thus escape paying insuranee on a crop that is already worthless.
In order to avold the danger of nonfarmers and politiclans being elected to office, it was resolved that every candidate nominated for office in the IJ. A. be required to state to the convention, before the bailot is taken, the axact source of his principal Income and nource of livelihood.

Incorporation of U.F.A.
A most important resolution to the convention was that dealing with th incerperation of the U.P.A. The resoli ${ }^{4} \mathbf{W}$ read as follows:
Whereas, it is expedient and in tie best interests of the Association that it should be incorporated so as to secure a legal status in the Province and whereas, it is sdrisable that such incorporation be secured by act of the Legislature of the Province of Alberta, be it therefore resolved that the directors of the Association be, and they are, hereby authorized to make ap. plication at the next sitting of the Provinotal Legislature for an act of in corporation of the Assoplatlon. of in-保 talls of the incorporation ahat be leti to the directors, provided only that framing the by-laws of the that in ated Association they shall focilopor closely as possible the present as stitution of the A the presont conThitution of the Aasoclation.

The putting into effect of this resolv thon will piace the association in an infinitely better position tu every way. tingent upon such incorporntion for


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Peck, Kerr \& McElderry Barristers, Sollcitors, ate. 415 Water St., Peterborough E. A. Peek F. D. Kerr $\quad$ V. J. MeEliorry
their futftinien, were two resolutions
dealing with hail insurance and the ad ministration of estates That the ad Insurance authorized the director to organize a subsidiary company for the purpese of carrjtag on as for the brokers or otherwisy the business of with and hail insurance. That dealing With sstates reads as follows: Whereas it is deemed exped that thill Association should acgent the power of action as executors and administrators of the estates of decensed percons, and generally as truatee on behalf of ite members when reguired to do so; be it therefore resolved that the directors be, and they are, hereby authorized to apply for such power, either by the organization of a subsidiary company or by obtaining the necesaary power in the act of incorperation of the Association if appied for.
Both these resolutions carried unaniof these t was explained that the firat plan of hert was neceesary, as the now plan of hail insurince could not be put mito effect this season, and some check in conne needed on line companies. thon, two rection with the railway situatuon, two resolutions were unantOne of these and wired to Ottewa. seainst the increaso of fret protested asiced for recently of freight rates. asied for recently by the rallways, this protest being particularly directed against the increase of freight rates on the C.PR., which te already paying good dividends. The second resolution urged upon the Dominion Government the advisability of taking over all rall. with a view, Canda es a war measure, whith a view, however, to Inal owner ship and operation after the war.

Officers for 1918.
The following officers were elected at the U.F.A. convention in Calgary Weod, Carstairs: fint vicent, H, W, Woon, Carstairs; fint vice-president, P. Baker, Ponoka; zecond vice-presi.
dent, W, D. Trego, Gleicheni vent, W, D. Trego, Gleichen; third vice-president, J. W. Leady, Whitecourt; fourth vice-president, Rice Sheppard, Edmonton. Directors: Bow River, G. A. Fornter, Pandoat; East
and West Calgary, WIIImm Crossfield; Battle River, H. E. SpenCrossfield; Battle River, H. E. Spen-
cer, Edgerton: MacLeod, S, S. Sears, Cer, Edgerton: MacLeod, S. S. Sears,
Nanton; Lethbridge, T, C. King. FayNanton: Lethbridge, T. C. King, Ray-
mond; VIcteris, F. W. Smith, Sedgemond; Victoris, $\bar{F}$. W. Smith, Sedge-
wick; East and West Edmonton, Joshun Eletcher, Grand Prairie: Joshun Eletcher, Grand Prairle;
Stratheona, C. W. Carroll, Ledue; Red Deer, Joseph Stauffer, Olds; Medicine Hat, C. A. Harris, Fairacres.

## City Milk Supply

Winnipeg Commission's Finding

THes Milk Commission, which has
been finvestigating the milt sitt been inveatigating the mith sitn.
atton in the elty of Winntpig. has reported its findings to J. D. Mc. Food Corstern representative of the Food Controller. As the resuli, Winnipeg producers will get more for their milk from Pebruary 1 to May marized eommittiee's report is sum. Froe Press: follows in the Manltoba Froe Press:
That the wholesale price of mill to the producer tis not suificient to enThat production.
That the price of milk to the conditions is not prevalling abnormal conThat the excessive.
That the investiment in the mill busimess, over what is actually ro: quired to serve the elity of Whantpeg $\$ 3000,000$. The0,000.
That thls surplus investment, to gether with divilication of labor, ne. a lrendred mem, and the of at loast a hendred men, and the work of a nimiliar number of horses, at an extra cost to the publle of approximately $\$ 110,000$ annually.
That the general conditions surrounding production are such that a milk thmine fin not probiadie.
That from what itmited fnformation to avallable from the etvice records, datry cattle, and compulsory slarity.
ing and pasteurization of all milk, unstans prodeced accorting to a hich sthe puasi, is the only safeguard for the pablic heatth.
culln teated in a 28 perds had been tuberyears. That in a period covering alix years. That incluaing original and rotests of these herds, made during this period, approximately 20 per cent. of the dafry cows were tuherculous. That only ${ }^{25}$ per cent. of the dairies
selling raw milk obtained a 75 per caw mill obtained a score of 75 per cent. or aver from the clty ln -
spector. epector.
That the schedule of milk prices used by the large distributors engen-
ders mistrust ders mistrust.
That the price to the consumuer be fixed at 13 cents a quart in qua.ts, and seven cents in plnts, from Feb-
ruicy 1 to May 15 next ruicy 1 to May 15 next.
That a committee of three be appointed immedhately, one to represent the producers, one the distributors, and one the consumers, to reorganize and consolldate the milk business, ruch reorganization to be completed not later than alay 15 next, the sald committee to fx the prices to both consumer and producer-following that date.
That the provinctal government appoint an official to be known as milik commissioner, bosiness ability and tecanical training to be the basis of his selection for the office, sald com-
misufoner to work with misstoner to work with committees
on reorganization, and generally to

Regulations re Hog Importations Modified
$T \begin{gathered}\mathrm{HE} \text { reputations prohibiting ad- } \\ \text { miation into cinada } \\ \text { from districta }\end{gathered}$ from districts in the of Uwine
states where hoo sholera has exist ed have been modiried on the Agriculture. From January pureured hoge rommuntanuary by the simultangous method of injecting serum and virue will be permitted
to enter Canjia when accompinter by the aftidavat when accompanied
bant owne the breeger or late owner that they were Immunixpor not lems than thirty dayy been immersed in a andion, have disinfectant tolution a satisfactory shipment. Thirty dayw quaran.
tine-to required for these and other hagu.
It is also provided that alt swine
must be aecompent must be aecompanied by a certifi. clacue nor hog efotera hat inwine within a radius of flive has exligted premises In which they have been kept for a perfod of $19 x$ monthn
Immediately preceding date of shis. ment. Hitherteceding date of ship-
abse absolute prohbition of hogs from
cholera affected districta.

Bupervise, Instruct, educate and as. consumers of mils distrlbutors and province. of milk throughout the That th
of paying for mille schedule syatem distributors for millk used by the large ed by a byatom of and replacstraight butter fat of paying on the That the price to basis.
fixed at 90 price to the producers be fat from February a pound of butter with a marimnm 1 to May 15 next, This would sive s980 of 4.5 per cent. of mille on the minime for 100 pounds cent. butter fat and fimm test of 8 per coni. butter fat and $\$ 4.05$ on the maso To ersourage butter fat.
Toality of mill improvement in the quasity of mills produced, the com.
mission recommends an addilfonal mission recommends an additional pald at the per pound of butter fat be producer whe ond of the year to any producer who is able to give satisfacfrom proof that his dairy herd is free from tuberculosis. A farther payment of two cents per pound of but. terr tat tie recommended at the end of the year to any producer who obtains a score of 75 per cent. or over upon mapection made by the eity health deDartment.
That the elty authorittes immedrately asik the Dominion. Minister of Agricaiture to have the regulations now in force reiative to compaleory ribercuin centing of dairy coma, whose mill to nold in the elty mate, applicable to the elty of Wianineg for the proteetipn, of the publle wipeg for

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the highest grade possible. seed and OUR DUTY IS DONE


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even eoat in three to roller bearings, and beater pinutes. With its light weight frame, the Deoring io a very light draft machin a strong steel The work of teanging vory lige mant draft mactione beaterg, one of which if a spiral that is maked between two spreads beyoud the wheel tracts fertilizing machine. It Thyen clar across the width of the spread. Three sizes. of Dearing spreaders spread.
 busheles No. 6,63 bushela larri - No, \& \& 49 busbelese No. 5,55 wite the neareest branch housce for illustrated dealer or showing all tho good features of this Doerring light cragat
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i the IIghtest ruanning blowe of the blowor. The thalightest running blower eutter made. It has broken all rooords for tilition


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preme. It has convenlent and qufok knif adjuss lick suxTr" ansllage pateated safety roverse-and is guaranteed solld steel-bound outting
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## Holstein Breeders Have Good Reason, etc.

## of banquet expenses. Mr. Lipsit

 moved a recousideration of the origin. al motion. increasing the award to$\$ 150$ for a pure bred, and $\$ 100$ for a $\$ 150$ for a pure bred, and $\$ 100$ for a
grade at Guelph. Ottawa grade at Guelph. Ottawa and Am
herst. Thls was carrled Mr. Halm herst. Thls was carrled. Mr. Haley's
motion was then amended. by Mr motion was then amended by Mr.
Iurnaty, 80 that the Holstoin Assocla Ilurnaty, so that the Holstein Assoclation entertained the wiuner, and pait the exponses, and this motion carried
alo. Both mollons were intended to alsa. Both motions were intended penses, but many of the breeders present did not faver the carrying of both motions, allowing the winner the increased grant and relfeving him of banquet expenses.

Misrepresentation at Fairs. tion of exhibltors at fairs up the quesmals that are not theirs showiag antHe moved that Mr. Hurnaby and My. Flatt be appolnted a committee loy the association to Investigate entrias to Toronto Fair, and protest and report cases of misrepresentation.
the exil to be a the motion, believing it objected, suggesting that a signed sit objected. suggesting that a sligned show any but thefr own property the only effective method of dealing with only effective method of dealing with
the evil. The motion carried, with Mr , Hlekst name adted to the committee. Hleke name adted to the committes.
Mr. Hicks was also appointed repro$\$ 1,000$ For Publieity
Ono thousand dollars was placed at the disposat of the Publteity Committoe for advertising purposes. The sal ary of the secretary, which. Includea stenographlc assistance and offlce ex penses, was increased to $\$ 5.000$.
The deep sympathy of the Associa tion was conveyed, by formal motion.
to the relatives of the late Matt. Rich to the relatives of the late Matt. Rich-
ardson, of Caledonla. the father of the present president, and hfinselt a past presldent of the assoctation: the first past president to be taken away by death.

The directorats Committee. will be composod of the association onder the now constint 16 memhers, some purposes, is an unwieldy body Accordingly, the executive recom. mended that they be empowered to an. noint-a Complaintet Committee of three, with power to act, employ a so-
liettor and expend moneys necesiary Thus complaints and Uisputes can be settled qufekly and with a minfmum of expense. The motion carrted.
Mr. T \& Dawson had given Hotten of movine a chanse in tha constits tion to amend the section entitled of the Renord of Merit rutes by alien iug the first ientence to read: "A vlous lactation perlod, made an of The Reval seven day test admiltting hor t a fest eight months after calving. but must be at least four monthss bred when this teat is mate. Thie mot'on When this teat fs mart
was lost on division.

An International Show A commurication was read from th Secretary of the Hamilton Board of Trade, regarding the formation of an organization to bring into belng an Show. Dr. Enklish endorsed Hamil. ton as a place for holding such a show, ant named D. C. Platt to reprowent the Holstein interests. Mr. Plaft 3 aft that he was not prejudiced in fevor of any eity, but would make it a condltion that the breeders own and control the show. He anticipated that it would in. time be the greateat falr in Canada. Mr. Brethour explained that the "International" would be in the hands of a group of men appointed from all the breeders associations, and that they could settle the show Where conditions were most favorable. A letter was also. read from the asking for a discussion of the advig.
ability of holding a winter show on the grounds of the Canadian National Exhibition. In reply to both the Hamilton and Toronto communications, the association, on motion of F. R. Mal. lory, placed itself on record as favor ing the holding of an international tre stock show, providins that side quate accommodallon were provide for the public, the live stock exhlbit and the holding of a modern dairy test, and that a commilioe be appont ed by the axecutive with pospon deal authoritatively with all developments in this line.

Mr. Brant's Suggestion
Thie suggestlon of Mr, J. W. Brant, that all live stock associations unite in an organization to defend their poshts in the case of the recent pro from Mr . Burnahy the mi Tates, drew fou Wr. Burnaby the suggestion that vas already in the field Agrtculture was already in the field for thls very purpose, and from Mr. Flatt that Oa ario is already "organized to death." Dr. Tolmie told of the Western Liva tion, and expressed is a live organiza rion, and expressed the hope that the assuciation would send two or thres representatives to the council prō posed by Mr. Brant. Mr. Brethour pointed by such-a committee be appointed by the executive, and his moing. ing.
$\$ 1,000$ for R. O. M
now bir bere that this assoclation is now bire enough to vote $\$ 1,000$ to R.O. then prizes, stated A. E. Hulet, and portioned that this amount be ap lines to by the executive on similar the thilted plan already followed in llered fited states. A. C. Hardy be$\$ 1,500$ the amiount too larse. Already above had been apportioned over and danger that a balance there was just ed Into a deflelt. Such prizes should be granted only when the whote fin ancla! sluation had been consldered He expressed a belief, too, that ? per cent. of the money would so to men who do not need it go trethen tooks strong exception to the fatter stafement, claiming that mon of the class loaders were "fust farie ars like myself:" After ansf faru. discusaton, the motion was carried by a narrow majorlty
Mr. Hurnaby suggested that. for the convenience of members, the R.O.M. lished side ly side in the sear pabl Thla, side way approvel This, too, was approved
R. O, P, Bsandards

One of the most thoroughly debated mbjects of the meating hait to do with roposed ehanges in R.O.P. regulalons. Mr, D, C. Flatt opened the dlafow on afons the lines of his fnterNew yublished in Farin and Dalry two Weeks aso. Scarcity of tatior maide it t articularly destrable, he thought, that standards be changed to sllow of a 500 day test. 13 months' freahening, and bilklag twice a day afler the first 60 hays, the latter provisfon to allow of 7 and 30 day offlefal teuts if the breod. or desired them. He urged the neces. sity of haying a test that all breeders could patronize. This is netesrary now at pure bred, but tuntented cows are not selling for a dollar suore than equally good grades, Nor ean the arerage farmer afford to watt 15 mionthe for A tate.
Mr. Brotben feared , that an effort was being made to make the R.O.P teat, as previously conduted. a scap roat "I belleve" ratd he, "that the cruest test is the officlal teat for one year, and the next best is the offlclal O.P for 7 to 30 days, followed with I O.P. testing for the balance of the that the fio.p, worls tell mole on recond hat thg IC.O.P, worit tells more about a cow than the Ro.M. ever does," it was eary, he thought, to "bamboosle" a buyer with a bigh test in seven days, and many who had been aceastomed (Continued on page 12.)

## WU LETTING The SUM

## On Married and Single Life

## "Bachelors' Hall, what a quare

 looking place it is,Keop mo from sleh all the days of me life,
Och, but to think what a burning disgrace it is, Niver at all to be getuing a wife."

ON the question of married ve.
single life men are divided single life men are divided into two camps- the bachelors who, tired of single tte, look with envlous eyes on the thome comiorts of their
brother benedicts, and the benedicts brothor benedicts, and the benedjets
who, feeling themselves more or hedged in by their wedding vows covet the freedom of their brows, bachelors. Who knows that ti was not the same person that ralled against bachelors' hall in the foregoing selec tion, who later was repponsible sele
"Needtes and plps, needles and
When a begins."
It is dificult for a Impartially with this bachelor to deal viaion of neplected dis subject. The the back of the table dishes piling up on washing, not toble awafting Sunday's of not knowing mention the worry on It natt to cang where to lay hands so real as to case a button filies off, is trled expariment of ever tha unthe subject is of matrimony. But ance to unmarried mech vital import. i feet th duty buen on farms that thing on it To bound to say somespective I have taket the proper perspective I have taken a look through Becon's essay on the same subject. He wrote from the standpoint of the marrfed man, 1 have the backelor's viewpoint. So with his cooperation I
hope to-present bot hope to present both sides of the ques. tion for the consideration of interested parties.
"He that hath wite and children, Bath siven hostages to fortune," sald these act as fmpent on to show that these act as impediments to the con-
testint in the race for sueces. 1 would tatte frace for suecess. Here twould take Issue with this seer. Instead of acting as excess haggage,
they act as would ballant in they act as would ballast in a canoe
race. They keep the cratt race. They keep the craft steady, and
by giving at longer cutting line by giving-a longer cutting line to the water, allow the paddler to obtain full value from his strokes.
Hachelors are particulariy helpless on the farm. I can spenk from exlor is making porridge (or the bachecoction whteh the dienitles will conname), When be should be feedt that horses, At noon he must coeting his early to get dinner started come th night he dispiritedly swarted, and at thing left over from the noon somenurses his indigestion for aoon meal, hours, or thithks over tor a couple of pers be mitght be taver good suppumbles finto a bed thaving, and then up during the day. What not made up during the day. What kind of a to do hils bost under expect a man even they are under such conditions. But the are of his own making.
Hut the time when the backelor's comes home from town is when be comes home trom town cold and hun-
gry and finds the fire out gry and finds the Are out, What pleas. are is there in carrylag home the bacon, putfed peanuts and the apool of black No. 36 thread, if you have to tet yourself in with a latech key? Then When you long for someone at the door to kreet you. Someone to tell you how thoughtrul you were not to forget anything besider the nutmeg and sugar.
No, Bacon was like the reat of us. He wan looking at far away. flelds and they appeared green to him. Had his wife been spunky enough to go home to ber mother for a few days after he wrote the essay under consideration,

Would never have toghnuts the essay she left Sir Franeis to fill himed. Had with stredded wheat fill himsell up other easily prepared and millk, or times a day, to make fits own three without buttons make his own bed, go in the evenings, ne'd talk to himselt grouch blg enough to warrant half a dozen essays-on the other side. It's always the eoter side.
lodge meeting the same, After the lodge meeting the married man envases the bachelor and his freedom because the latter shows no haste to get bachelor is trying to know that the bachelor is trying to escape the accusation of the plle of unwashed dishes. Each dreads the reception awaiting him at home, but for differknow which reason is thoblem is to Certainly Certainly some questlons asked the
benediet on his arrival may be diff. cult to answer-but a pile of dirty dishes and a cold stove are unanswerable
exhaus a more or less exhaustive (or brealitasts teat of baching is. of other excuses made of shredded hay or to make milk palatable, of dinners under cooked and served in the ves sels in which they sat on the stove and of suppers made up largely of greasy potatoes lett over from the divner, I have, like Buster Brown, drawn up the following resolution: That the odor of tomato the making as one plode soup in way up the tane from the his weary and one or tmore pairs of back fiedd. at the doorway to take of bright eyes off the wheat fleld that the thaghts worms have destroyed till army


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Ford Motor Company of Canada, Limited
alance several new dresses and anycroup."

## Sam Ray

ing Inter-County Live Stock Judg. ville, Ont by countles are as follows: Glensarts 2,177 pohits; Dundas, 2,016; Lanark, 1,894; Peterboro, 1,828; Grenville, 1,826; Frontenac, 1,748; Carenville, 1.709. Clarence Wilson of Grenvilla Was highest in beef cattle and horses: Victor Armatrong, Oharleton, in dairy cattle and swine; and Joe Kennedy, Glengarry county, in sheep. Kennedy,


## BRINGING IN THE CASH

One way to do this is to increase your output by better methods
of production-another is to conserve ths feeding duce, making them go farther by carefully balancing the feeds now proout this problem this winter. The one best book of which we know on this "subject is "Dairy Farming,", by Eckles \& Warren. You can secure it from our Book Department. The price is but $\$ 1.50$, neatly
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OW is the consumers' chance to get freah fish at wholesale prices. We are not wholesalers, but we buy our fish fn car lots, direct direct to the producer at prices the same as the wholesaler and sell and the trane consumer, thereby cutting out the middleman's profit transportadion charges between.

By eating figh you are releaaing meat for the soldiers, and thereby perFlah a patriotle dusty. fil be dellvered free of tranmertation charges to any frelight or
wores office west of Toronto. Boxes free express office west of Toronte. Boress free.
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R. B. Bawtenhiemer, Manager:<br>Please find anclosnd money order for the sum of B............ for which shlp box of White Fish containing<br>tbs. to be delivered at

Holstein Breeders Have Goon Ruason, Etc.
(Contimued trom page 10.)
to doing so were atrald of the R.O.P. tent. Mr. Haley thought that if a rich man milks a cow four times a day for a year and makes a good record, it all works for the benefit of the breed. He thought it would keep a good cow in distress to millk her fust twiee a day. Fizally, T. A. Dawson moved that the Records Board be advised to establish two seetions of the R.O.P., one for 300 or 205 days, 13 moathn' freshening. and milk as often as the breeder pleas. ed, and ahother for 366 days, with all breeding restrictions removed. Later Mr. Dawson withdrew his motiori in favor of one proposed by Mr. Fiatt that the executive eppoint \& committee to meet with committees of the other datry breed associations, to discuss proposed changes with them, and report back next year.

## Executtive Meeting.

The meeting then adjourned. At a meeting of the directors the following officers zere elected for the ensuing year: Pres, Dr, Tolmie, Vietoria, B.C.; 1st Vice., Nen Sangater, Orms town, Que.; 2nd Vice, G. A. Brethen,
Norwood: 3rd Vice, F. R. Mallory, Frankford; 4th Vice., R. W. E. Burn: nby. The Ontario directors elected in noy. the Ontario directars elected in
open meeting were: M. H. Heley, F. R. Open meeting were: M. H. Haley, F. R.
Mallory, R. W, E, Burnaby, G. A. BreMallory, R, W, E, Burnaby, ©. A. Bre-
then, R. M. Holtby, N. P. Siegar and then, R. M.
R. J. Kelly.
Hepresentatives to fair boards are Central Canala Exhifittion and Ottawa Winter Palt, T. Spratt; Guelph, D. 0 Fhatt and W. H. Cherry; Amherst, A Dickie and Amos Fowler. Judges recommended were: Toronto, W. S. Moseript; London, G. A. Brethen; Ottawa. Prot. Barton; Sherbrooke, F. R. Mal. lory; Ormstown, Mallory; Valleyfield, R. M. Holtjy: Quebec, M. H. Haley: Guetph, G. A. Brethen. The Adjustment Commiltee is composed of R. F. Licks, F. R. Mallory and the Eecre-
tary. The Publicity Committee: Dr. tary. The Publicity Committee: Dr.
Tolmie, D. C., Flatt and the Secretary.

The $\$ 1,000$ R.O.M. grant was d1vided into five awards of $\$ 15, \$ 10$, $\$ 5$, $\$ 3$ and $\$ 2$ for each class in seven-day work for milk and butter. A breeter may win on elther milk or butter or both. In 30 -day tests there are prizess
of $\$ 10, \$ 8,85$ and $\$ 2$ in each class, milk of $\$ 10,78, \$ 5$ and $\$ 2$ in each class, millk and butter, and in the 8 months after calving two prites of $\$ 6$ and $\$ 4$ in all prive in each class.

## Milk and Cream Producers Organize

THE Ontario Mill and Cream Pro. ducers' Association completed organization at a meeting held In Toronto last Thursday, * The direct.
ors, appointed at the initial meeting ors, appointed at the initial meeting held a year ago, submitted a set of by laws, modelled to a conslderable ex. tent after thove of the National Milk and Cream Producers', Association of the United States. These were conaddered and tinally adopted.
Secretary Manning Doherty made the important announcement that the Provinclal Government had praettcally agreed to appoint a salaried of ficial to check the tests of milk dealers as given to the producers when settling with them for their milk and cream. Before it was practically deelded to appoint the proposed inspector, an inveitigation of conditions had or, an invertigation of conditions had
been conducted. Tents were taken of the cream of 47 farmers, and these were inter compared with the returnis given by the dealers. It was found given by the dealers, It was found
that there was a great difference betwat there was a great difference be-
tween the retarns of the dealers and twaes the retarns of the dealers and
those of the Government tester. This those of the Government tester. This
difference was so great that it had been eatimatod it would amount to $\$ 1,000,000$ in in year to the Toronto producers alone. Mr. Doherty said he understood that the new official wonld work under the direction of the Provincial association, and that his ser-
vices would be avallable to the varione local assoclations.

Officers Elected.
The new constitution provides for a board of nine directors: three appointed for three years, three for two yeari, and three for ane year. The offlcers for this year are:
President, B. H. Stonehouse, Weston, three years.
Vlice-President, J. P. Griftin, Freeman, three yeari.
Secretary-Treasure: Manning Doherty, Malton, three veprs.
Directors, J. B. Long, Merivale, two years; T. Shearer, Listowel, two years: 8 . Young, Gualph, one year: $\mathbf{G}$. J. Cook, Beachville, on9 year: H. D. Rice, Welland, one guar: Andrew Cornish, Wilton Grove, one year
It was deoided to finance she assoclation by asking the local associa. Cions to contribute 25 centa per member to the funds of the provincial as sociation, the minimum contribution to be not less than five dollara. Wach local association may appoint three

## The Fuel Controller Re-

 sponsible0WING to the drastie regulation of the Fuel Controller in elosing all factories from Saturday till Monday, inelusive, we were compelted to go to press two days enrliter, with the result that much material had to be omitted from this week's issue, including sev. eral reports of the live stock meetings held in Toronto during the pant week. These will be given in full in a later lissue of Farm and Dalry.
delegates to the meetings of the provincial organization, who can vote in person or by proxy.
Brief speeches were made by Prot II. H. Dean, of Guelph; G. A. Putnam, Director of Dalry lastruction for Ontario, and H, B, Cowan, of Farm and Datry.
It was decided to complete arganiza tion as thoroughly as possible, and to keep the local associntions posted in regard to the prices being paid In the different centres, and the paid in the ductiont centres, and the cost of production. Reporta presented at the meeting showed that farmers near Oson the receiving 82.40 an $8-\mathrm{gal}$, can delivered. Woodstork, 82.50 a can Guelph, 8250 s 100 Tbs, the tarm Iuelph, $\$ 2.50$ a 100 Jbs at the farm. A resolution was adopted urging that the provisions of the law in reference to the sale of oleomargarine should be turned over to the Domintotn Department of Agriculture for en forcement.

## Care of Cream Separator

WHICH separator le the best? This
questlon is asked over and orer question is asked over and over acain by aft, whe have occasion to use a separator, It is also a most
difficult question to answer; in fact, there in no sinsle answer to it. There are a sruat many differeat makes of separators on the market and ment of them will do efficlant skimining Il ther are rus and cared for mroporly it they scparator falls to for propenly. It a soparator fails to do sood work, it is more often the fault of the operator than the construction of the machine. No matter how well a separator maty be constructed, If it is abused by improper uage it will noon fall to do properly the worlk for which it was desitned.
The following suggestions may be of help to separator operators:

1. Set the aoparator level on a solia foundation and bolt it down firmiy, It is well to have a plece of rubber pack. fog under each leg of the separator to serve as in cushion for absorbing vibra. tion.
2. See that all benringa are cleca
the bearings occasionally with gasoIne or kerosene to remove all grease that may have become gummy and thus prevent proper lubrication.
3. Use only the best hand-separat oil. Never use common machine ofl. 4. Be sure to turn the separator at the proper speed. Time it with watoh or speed indicator.
4. In cold weather run about a gallon of warm water through the bowl to warm it before turalng on the mill. 6. Separate the mill as soon after milking as /posible, for the milk is then warm and in good condition to secure a clean separation. No separa. tor will skim cold milk as well as warm mith. Tho inttk should be at least $75^{\circ} \mathrm{F}$. in temperature.
5. When through skimming, flush the bowl with about two quarts of the eldinmilk. In cold weather, warm water may flush the machine more ef. fectively.

Eradicating Tuberculosis from the Dairy Herds

## (Continued from page 3.)

spread the disease. If the res. Its of the sputum culture show the presence of the disease germs, It meana the animal is a 'spreader.' Under this method, 'spreader,' she is not at any time any

## Canadian Wool Growers Organize

$\begin{aligned} & \text { made by the wool-growers } \\ & \text { from all parts of canate, }\end{aligned}$
meeting lat week in Toronto, when
a Dominton-wide coperontive, when
pany was formed for selitng the
gatered by local cooperative as.
ioclations. The name is to be the
$\begin{aligned} & \text { Canadian Cooperative Wool-grow. } \\ & \text { ors, Limited, with head aomce in }\end{aligned}$
$\begin{gathered}\text { Toronto. } \\ \text { By-laws }\end{gathered}$
$\begin{aligned} & \text { By-laws were drawn up to govern } \\ & \text { the company, and }\end{aligned}$
$\begin{aligned} & \text { rectory was tiect } \\ & \text { the followingi- } \\ & \text { British Columbl }\end{aligned}$
$\begin{aligned} & \text { British Columbla-George C. Hay, } \\ & \text { Kamioop, B.C.; Alberta--j. W: } \\ & \text { Renton, Calgary; Lovi Harker, Ma: }\end{aligned}$
$\begin{aligned} & \text { Kenton, Calgary; Levi Harker, Ma. } \\ & \text { grath.. Saskatchewan-H. H. Fol. }\end{aligned}$
$\begin{aligned} & \text { Manttoba Ceorge Cordon, Fergst. Oak } \\ & \text { Lake. Ontario-Col, Robert Mc. }\end{aligned}$
$\begin{aligned} & \text { Ewen, London! W, Robert Mc. } \\ & \text { Erookith; George Wi, Teifer, Baden, }\end{aligned}$
Quebec J. A. McClary, Lennox:
$\begin{aligned} & \text { Mie, AS. Marlo, McDowell, Shawville! } \\ & \text { Mrunswick-Angus Aver. New }\end{aligned}$
Wmerot, Prince Edward Isiand-
Fueling to the rengulation of 16 .
Fuel Controlier, which elosed our
day, we are unable to and Mon.
$\begin{aligned} & \text { plete, report of the to glve a com. } \\ & \text { mejelting this wrowerg }\end{aligned}$
$\begin{aligned} & \text { meiting this week, wool-growerg' } \\ & \text { lesue, however, will contaln whek' }\end{aligned}$
$\begin{aligned} & \text { issue, however, will oontaln thls re. } \\ & \text { port. }\end{aligned}$
source of danger, although she may the any time become so; but applying the sputum test will protect you. The calves eliminateurised milk for the fection from this the possibility of intest has determined source; the sputum teat has determined whether or not the cow is a 'spreader.' If a 'spreader' has been found, she should be removed ing purposes, If valuable for breeding purposes, she should be isolated hic.

## Where System is Weak.

"While this practice may, be success. ful at Dutchland Farms, it does not bignify its usefulness to the average breeder of dairy cattle. The use of the tuberculin tent is urually directed Under this method, however. denotes the need of applying the spu tum tent -2 test made by taking spu. ples of the sputum, or the material thrown off by the lungs and thmoterial bncteriological diagnosis. It will there tore afford the owner innowledge of hose abimals which spresel the of ease through those passages. metor, however, is the necessity of de teeting the 'ipreaders' from the re-
actors before they infect healthy aniactors, this would require the some renpptication of the sputum the frequent even there the danger remains, the amount depending directly period of time between tests whon the the sputum test can be thus regularly applied, it may give good results." In closing his argument, Prof. GH culin teaffirms bis faith in the tuber of eradicating tuberculosist method separation ang tuberculosis. "The enimals reacting to the tuberculin test remains, however, the sifest pro cedure," he writes. "The safest promanagement differs from the prope of plan in that seme animals may be facrificed before they become may be ers', yet the liability of infection is duced to a minimum and eradien rethe disease becomes easier, more prac ticable, and surer. It is, more practhe plan still advocated and endorsed by the veterinary profession as the one beat suited to the iltimate eras the thon of tuberculosis,"

Cash Crops for the Dairy Farm (Continued from page 4.)
the total income should be expected from the sale of mill or cream, the the sale of cent. being derived fromi try sale of surplus stock, buge, poulThis ls risht crops.
This is right in line with practical experience. It reminds me of a visit well-known with Mr. A. C. Hallman, the well-known Holstein man. Mr. Hallman is first of all a dairy farmer. Hogs are his Elost important sideline. He fold all he grew. grew all he fed and he madl he grew. Almost immediately he made an exception. It is his pracace, I found, to grow a considerable and with the wheat as a cash crop, and with the income from his wheat he can buy mill stuffs and other concentrates, and even then have a balfarmers, I understand, Nova Scotia their great cash crop, and potatoes cheir great cash crop, and in many revenue from this per cent. of their last few months many orop. In the ers have discovered Ontario farmland is sultable toes make a very desirable af of potathe list of income makers. addition to case we put in just ahout in our own half acres of just about one and onerecelpts were well over $\$ 200$.ur gross

The Orchard a Questionable Proposition.
The small orchard was once a good sideline and apples a paying cash crop. r am not sure that it is so desirable a cash crop now. Market reguirements are more exacting. The fruit must be grown more carefully and packed more earefully. The varlous operations call for a great deat of special knowledge and considerable tirie. Apple growing in the future, I belleve, will be more of a specialized business than any other branch of agriculture. 8 mall frults as a cash crop are open to the oblection that they require too much labor in the busy season: a possible exception is in the case of the farmer with a large family of small children.
Is to work them the best use of cash crops is to work them in where they can be produced without much extra outley por labor. Occasionally they make it poesible to profitably add a man to the farm staff. Here is a case in point. A young man and his wife bought a 100 aere farm not far from ourselves. He milked 12 to 15 cows, and as his wife was an excellent miller and willing to help outside, they managed to get along without a hired man and by hir ing occasional day labor. It was, however, placing a great strain on both the man and his wife, but they could not see where they could afford the outlay for a regular man. It was sug. geated to him that he put in a five-acre feld of potatoes and hire the man he so badly needed. He did so. The extra caah crop paid the hired man's wages, and all of the rest of the work on the farm was better done and with less of a stratn on the farmer and his wifa

## RENNIES War

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ness men who advertise, nor pay the donorable busil.
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## Running Water

AN institute lecturer was ataying over night with one of his audience. His hast, he discovered. was a progressive farmer. The barns were filled to the root with the good crope raised. Six or soven cans of milk a day were being shipped from a darry herd of 13 cows. Everything in the line of live stock had a thrifty well kept appearance. The tatest addition to the stables had been a water aye tem with individual bowls before each cow. There was a big concrete trough in the barnyard to which the young catter went for water. The supply came from an overhead tank wilh a gneoline engine doing the pumping.
While the Institute man was admiring the conveniences of the stables a gray haired woman, the wife and mother of the family, came out to the bera with two empty pails to repleniah the household water supply from the trough at the berc. There was a well nearer the houne, but the water had to be puinped so the womentolk considered it just as easy to go to the barn for the water and meroly carry it. The Institute man immediately sugesested that a pipe be run to the house connecting with the overtead tank in the barn, and the women of the bome saved much heary labor.
The farmer was glad to get the auggestion, and he scted on it the following spring, fust as soon as dig. sing became posisible. It aetually had not occurred to him how easy it would be to supply the home with running water. He had had his plane for duplicating in a fow years in the house the overhend system that he had already estabiehed in the barma.
Hia plans called for a complete bathroom and other modera conveniences. His intentions were the best. He had not thought, however, of elfminating work in the intervening years by connecting the bouse with the stable syatem.
Mray of us are in the same position. We have our plans for a modern home in the future. We are willingly putting up with unnecessary inconveniences pow because of what we will have liter on. A very Uitlle expense now might bring to the home the bless ing of rumning. water in the kitchen, even if the more
expenaive conveniences, such as the bathroom, have to be laid over for a fow yeers, or a more conventont time.

## Single Tax in Edmonton

$\mathrm{O}^{\prime}$PPONENTS of the single tax method of raising revenue for munieipal purposes bave in recent months been citing Edmonton as a horrible example of the workings of the system. Probably the people who are in the best:position to know whether or not aingle tax is a failure in Edmonton, are the people who live there. Recently a plebicite Was presented to the people of that city to modify the single tax system by taxing improvements to the extent of twenty-five per cent. of their value. The amendment was voted down and Mayor Evans, In dincuasing the vote, said: "No such plebiscite will ever carry because the resident property owners, who are the only people to vote in such an election, are not going to vote is tax themselves."
"People are not going to vote to tax themselves," Here we have the explanation of the whole aituation. Edmonton is in-inancial difeculties. In the boom days her boundaries were extended. Groat expend1tures of public money were setalled if the axtension of public improvements, such as ronds and sidewalks. Then expenditures were designed to give value to unimproved euburban property. Owners of this vacant property then expected to sell their holdfags at a rise, and were quite willing to meet the high taxed involved in the public improvementa mentioned. Then the boom colliapsed. Holders of unimproved property began to tire of paying taxes and getting nothing in return. Hence the agitation to shift a greater part of the burden of taxation on to the people resident in the city of Edmonton. The people have wisely refused to be stampeded. Land speculation has been the grestest curne of Edmonton as well as of all other Western and Bantern eities hand for imprevements to ccury a portion of the speculatork buriten, would be to give mpeculation a new lease of life. That the people of Dimionton are atill satistied with the single tax method of raiping revenue, will be good news to the organized farmers of Canada who have placed themselves definitely on record as favoring the land tax princlpte.

## The Price of Cheesie

TCHE dairy farmers of Ontario and Quebec who are patrons of cheene factories are justiled in taking such ateps as are possible to pecture an inerease in the price pald for cheese thit season. In this connection a statement should be prepared with great care by the Dairymen's Associatlons showing in detall what it cost to manufncture cheese lant soason, and to what extent the cont of manutacture has been increased in the interval. Only in this way will it be possible for the Dominion Government to prove to the imperial authorities that the increased price anked for in justiled and neceanary.
Unfortunately, the proof that an increase in price is justifled and necessary may not make it pomibie to obtain sueh a prioe. The British Government absolutely controls the situation. Our Canadian Government may make recommendations to the British Government, but its power then ceases. The British Goverament in the last analyals will detormine what price it can afford to and will pay. This in turn will be determined by many ather factors, fncluding the condition of the money market. Farm and Dairy understands that the nominion Depariment of Agriculture has been impresalng upon the British Government the necesaity for completing arrangements at the eariliest posisible date for the purchase of this yearli manufacture of cheese, but with practically no remult beyond a notilication thent the businoss of purchasing cheese has been turnad over to the Ministry of Food and, theretors, will not be handted thie year by the British Board of Trade. an was the case last year. The danger as that the matter may be allowed to hang fire too long with the result that another tie-up may oecur auch as took place at the opening of lant aesson until the prioe whe finally fixed.
The cheese commination last your did a tremendenily valuable eervioe for the detrymen of Canada, juat how, valuable probably will never be tulty
understood by the public. fin order that the value of this service may be more fully recognised, but mainly because we bolieve that dairy farmens are entilled to such consideration, we would like to see the Dominion Mfinister of Agrieutture appoint a couple of representative dairy farmers to posifions en the cheese commission this year. These men should be consulted before the price of cheese is set, which means that this action should be taken with the least possible delay. Dairy farmers would then have tangible proot that thefr interests were being considered in every possible way, and mach of dio eriticism of the commission which was heard last season would be avoided this year. The whole aituation is a delicate one, both as it relater to the tmperial authorities, and the producers, and must be handled with the greatest tact, good judgment and business foresight. Action along the lines hare recommended should be taken without delay.

## A Trouble Maker at Large

 OwS MR. W. F. O'CONNOR know that his illadvised reports are a menace to the public welfare? As an employee of the Department at Laber at Ottawa, his ehiet duty in to inventigato facts affecting the cost of living. The trouble with Mr. O'Connor is that he does not investigate far enough. His most recent exploft amply Hlustrates the worthleasness of Mle suggestions. Mr. O'Connor Arst discovered that there were more eggs in stor age on Jan. lst of this year than on Jan. lat of last year, and alno that the atocks of cheese on hand asemed unusually large. Immediately he crme to the concluston that he had discovered two glaring examples of food hoarding, and that the dear publie was being imposed upen ty foed profiteers. In his report he demanded that both eggs and cheese be selsed and put upon the markst at a prico low enough to command immediate sale.Hed Mr. O'Cornor given the matter the complete inveetigation that we have a right to expect of a government employee holding as reaponsible a poat tion as he does, he would have discovered that there ars no more eggs in storage than are necessary to meet domestie requirements, that supptles of new. thid eges are away below normal, and that immease quantities of United States eges which asually start to move into Canada at this time of year ere not contlig at all. In faet, egges are ar scarce fo the United States as they are here, and on the leading market they wre equally high in price. In regard to the checse situation, all who are even remotely at guainted with coaditions know that all of the cheese now in starage in Canada is urgently needed in Great Britain, and that it is only lack of ahipping space that prevanta fmmediate ahipment. No one would be so sted to mee this cheone moved on shipboard as the merchants in whose warerooms it is now stored. Incidentally we might mention that this cheese was purchased and stored under instructions trom a eheese comminstom appolntat fotntly by the Britilh and Canadian Governments.
There can be oniy one result of such tastien an are being employed by Mr. OrConnor-a gonernl loes of eonflence in the trade. We slrtaty have an tthur tration of how this works. Last fall the Food Controller threatened to take arbitrary action in conneotion with the price of potatoes. As a result, wholesale dealers did not dere to purchase potatoes for faar they would be cut in the price, or, with their celtars full, accused of hoarding. Sinoe then, extromely cold weather has prevented the movement of potatoes on an extensive scale, and there has beon almost a potato famine in our, cities becaune the uaual quar tities were not stored mgafint such a contingencp, and the price has been higher than it otherwise would have been. If other produce deelers are led to believe that their business will be aimilariy interfered with, the result may be a complete demoralization of the market for egan, butter and cheene during the coming season of excess production. Such a result would be regrettable in the extremes the publle would be infured and not beneftted, and Mir. OrCennor woeld be primarity ropponatbie. Government aversight of cold storages may be mecensary, but let that overuight be given by someone who understande the priacipios involved in maintainings supply and domand on as sound busfuese beste.

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food in feeding animals,", eald Mr
Arkell. "The hog and the dolry Aricell. "The hogs and the dalry cow And se get the first chance in feeds. dnctive cow. Lowinate the non-productive cow. Low producers are not reeded out as a war. They must be want more as war necessity. We want more millk for the feeds conbe made this spring a drive should in Canada's herdsing for better sires Canada's herds.

## Length of Teet Discuseed.

the R.O.P. teat brought duration of cussion by the breeders on much disHamili, of Markham, moved Mr, H, C. classes be made in the R.O.P that two tions.

## Olas

helfars a to consist of all cows and next calr in 390 and producing their ment of test cowns from commence. apwards to commence yeart old and monthis of commence test within 15 moaths of previous freshening.
and heifers qualitying under the cows sent $R, 0 . P$ rules for under the pre Mr. Arkell rules for pure bred eattle. Department of Arked that the Federal placing of R.O.p be practical and on a basis that will is not so considerede present gystem will move, howerer. The department are ready. however, when the breeders "If one
be necessary to were ready, would it tions to come in watt for the assoclations to come in before action fs taks"We would ifke Ballantyne.
on the part of all a clear-cut action on the part of all the breederst associations," replied Mr. Arkell.
confine Class stated that he didn't wanted Class A to 300 days. He elanticity to anne a certatn amount of Mr. Hamill bply to indiriftust cows, cumulative test thes that it is the Mr . Wood, in charge of value.
was of the in charge of R.O.P, work, woutd cause copinion that two clasese 300 or 365 confualon. One, elther Mr . Diamond believed that best. aecessary to change Dised that it is not The breeder cange the regulations. months or twelve run his cows ten months or twelve months, whatever Thls whe
Furner. He stated postion taken by Mr Turner. He stated that the 12 months
tests have boosted the tests have boosted the breed.
Mr. Ballantyne belleves thoroughly in the 10 months" test. "It would bring more into test work and would so in the end be the best for the
breed." reed.
Hamillis motion, ft wasonder to Mr. Hamilrs motion, it was moved by F. H. Harrls, meconded by Johin McKee, that the association state its approval of the change of the R.O.P. test to 300 drys, with a time limit of 390 days for freshening. This motion carrled, and Meairs, H, C. Hamill, Markham: John McKee, Norwich, and A. 8. Tarner, Ryckman's Corners, were appofnted a natactallon to conter with other breed associatione in this matter:

## Breeders WIII Advertise.

It was moved by $\mathbf{R}, \mathbf{R}$. Ness, socond President-elect, the Efchute, that the Mresident-elect, the secretary, Joht Mckee, and Gilbert McMilian, Hunt ingion, conatitute an advertistng com mittee to boost the breed, the amount to be expended to be left in the hands the Board of Directorn in conjunction with "It hasd of Directore.
It has been found in this connec tion that winter advertising pays bent. The advertising that has heen carried of has resulted in sales to membern," eald Mr. Stephen. Mr. Stencll sald that he could trace a large number of sales, particularly in New Ontarlo, to these $\stackrel{\mathrm{ada}}{\mathrm{Mr}}$
Mr. Rowlatt, whose firm lanndled last year's advertising, sald that the vould be the association's advertising wowed be muoh more effective if fol. lowed up by communications from the Individuals to the papers, news of the
Mr. Rewlatt recommended that a dustry. matter.

## mage 6.)

gether and get all ads advertise topage under get all ads. run on one page under such a head as "Canadian Ayrshires." Another recommendation
was that the association advertiol Wha that the association advertise in the city papers at faly time, recom-
amending the farmers to see the mending the farmers to see the Ayru
shires at the fair. This might at Toronto, Ottawn and London, done Toronto, Ottaw and London.

Ayrshires for Now Ontario.
The subject of New Ontario as market for Ayrshlres was introduced by Mr, C. F, Bafley, Deputy Minleter of Agriculture. He polnted out that New Ontario is the notnted out that clover, which yields natural home of tons per acre. Last spring the $\mathbf{~} \frac{31}{2}$ tario Government shipped three cars of grade Ayruhtres to New Ontarlo These were successtully sew Ontario. tion at New Lfskeard ith by aucment han now changed The Govern will establish salns stahles in and Kiskeard and Fort willables in New of the demand lies in the The proof were 700 head of cattle morod there ilistrict hetween New Liskeard the Cochrane- 185 miles. Lislceard and The new creamery.
Is runninf all winter and next sumeard there will be cream from next summer coming to the cream from 1,000 cows are springing up in all Northern tricts. "I can mee an opporthern disany breeders' assoclation In New for tario, satd Mr. Balley. In New Onis well suited to New The Ayrabire men there are keen for Ontario. The The Government is purebred sires. New Llakeard a demonstrationing at where later a pure-bred Ayrahion farm will be placed." Mr. be placed."
ing sidvertising. New-Ontariot in plaekept well in mind Hy the would be Mr . Btephen mind by the commitutee. quiries have come from New of enluring the year. A commew Optarlo thie sutbfect sent in by Mr. Will on Leltoh. Corn Bent in by Mr. William over to the advertising, was handed

Enforse Dairy standards Aet.
It was moved by Jehdards Act. onded by Wm. Stewart, that the Ontarlo Government be memorlalige Onput into effect the D. S. Aet -and to ment by test, and thereby rem paygross infustice to dairymen. remove a ft was moved by Mr. Mor. onded by Mr. MeCormack, Morrison, seeDominton Government be asked the quest the breed associations in publibtug the tests to quote them in terms of ibs. of fat rather than in ther of butter.

Further Renolutions.
It was moved by W. H. Hunter Lachute, Ont., seconded by J. H. Black, ufacture and sele whereas the manCanada was sanctioned oldargarine ft Controller as sanctioned-by the Food dairymen who war messure, we the it, are willing have always opposed ston during war sumit to thls deel. that the Covernme, but feel assured hiblt the caleramat will egatn prodiately sie of this proiluet immeas in our oninion it on of hostilities, aftect the opinion it would serlously aftect the progress of our dalry in-
dustry,

Winter fhite of a National Live Stoek ter from the Was brought up by a lettion Associntionadian National Erhibl. the Associtre asicing the support of the Ayrahire breeders in promoting such a fair in Toronts. Mr. MeKee Ham of othe invitation issued by the Winter Board of Trade to hold the Ainter Fair in Hamilton,
After some discnssion, a resolution was passed approving of the estab liming on the conclusion of hostillites, of a great National Llve Stock, Show, ohn Mokee and Alex. Hume were ap piated representatires of the Ayr ahlre breeders to meet the represent tives of other assock Hons on

On a motion moved by F. H. Harris, (Concluded on page 21.)

## Three Important Reasons For Buying a NEW DE LAVAL CREAM SEPARATOR At Once <br>  <br> 

THERR are three very strong reasons for the immediate pur-
chase of an up-to-date De Laval Cream Separator
 and in time saving-at the present very high butter prices and
great need of every minute of time.
In the second place, the patriotic duty resta upon every producer value to a nation at war. All European nothing is of greater food the aale of the best cteam separators in eountries are encouraging parators in every way possible.
upon quicis delivery, and if you don't order your that you can't depend Is no telling when you can get It. Moreover, the supply of now there material is uncertain and all last year De Laval deliverles wer nearly two months behind.

Again, De Laval prices
must go higher if present industrial conditions little thus far, byt become more dificult. Present prices hold good until March 1st
only.
There was never a time when the immediate purchase of everyone separating cream, or when it could less wisely bedant to


See the nearest Do Laval agent at once. Arrange to try a new De Laval machine
for your own atisfaction. See for your
eelf luet what it self juat what it isfaction. Sitt do for for your,
don'I know the nearest agent simply ad.
dress the nearest

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 LARGEST MANUFACTURERS OF DAIR In Canada of the famous De Laval Cream Sep Engines, Aldeal Chreen Foed SHow. A1pha GasCatalogues of any of our and Butter-Workers. MONTREAL PETERBORO WINNIPEG MONTREAL $\begin{gathered}\text { PETERBORO } \\ \text { VANCOUVER. }\end{gathered}$





4 PEERLESSS
(1) PERFECTION

## a humawar horse

can't break a Peerless Fence. No fiery bull can make a
dent in it, hogs can't push through the spaces.
dent in it, hogs can't push through the spaces.
nith hoid thems all securoly. Auk jour nearen







## The Heart of the Desert

## Conturnat from hat wox

"H

$\mathrm{H}^{\circ}$OLD em. Alchise!
briefly as he ran. Alchise, with. Alchise, with rille cocked,
stopped by the opening. The Assure
widened immediately into a narrow widened immediately into a narrow passagewas, High, high above them rolled a strip of plink and bine morning sky. Before them was a seeming.
ty interminable crevtee alonk which the squaws scuttled. As Rhoda watched them they disappeared around a gudden curve. Whea Kutle reached this point with his burden, the squaws were climbing uke monkeys up the wall which here gave back, roughly, tending the fissure in a rude chimney which it seemed to Khoda only a bear or an Apache could have climbed. Kut-le set Rhoda on her feet. She, looked up into his face mockingly. To her mind she was as good ns rescued. But the young Apache seemed in no wise hurried or excited.

Our old friends seem to want something!" he commented with his boyiso gria.
asked Rhodi, with calm to do now?" Apache's.
cant carry you up this wall,"
suggested Kut-2e. "Very well!" returned Rhoda pleas-
antly 1 am aite willms that sou should leave me here."

Kut-le's eyes glittered.
"Rhoda, you must climb this wall with me!" "I won't" replied Rhoda laconical.
ly. "Then I shall force you to," said the Indian, shifting his rifle and proading Rhoda ever so gently with the barrel.
Rhoda gave Kut-le a look of scorn that he was not soon to forget and slowly mounted the first broken ledge. The wall was composed of a series of jutting rocks and of lodges that barely offered hand or foot hold. Up and her, now above her, now Hfting, now pulling. Half-way to the top, Rhoda stopped, dizzy and afraid. Kneeling on the ledge above, with one hand thrust down to lift her, Kutal looked Into her eyes almost pleadingly. That handsome face so close to hers affectad Rhoda strangely.
"Don't be afrald," whispered Kut-le. Nothing can happen to you while 1 am taking care of you."
Rhoda looked into his eyes proudly. "I am not afraid," she said, reach. Ing for a fresh handhold with trembling fingers.
The jutting rocki were sharp. Kutle from his ledge saw Rhoda look nalls were torn to the quick and bleednails were torn to the quick and bleed-
ing. Slie swayed with only an atom of gravity lacking to send her to death Eravity lacking to send her to death below. Instantly Kut-le was back beatde her, bis sinewy hand between her shoulders, supporting and lifting her to the ledge above. As they neared the top the broken surface became prickly with cactus and Rhoda winced with misery as the thorns plerced and tore her flesh. But finally, in what
actually had been an incredibly short time, they emerged on the plateau, where the two squaws huddled higs above the pursuers.
"They think they have you now !"
said Kut-le, as Rhoda dropped panting said Kut-le, as Rhoda dropped panting to the groynd. "We must move out of
here before they Investigate the mesa top.
He allowed, however, a few minutes ${ }^{\circ}$ breathing spell for Rhoda. She sat quietly, though her gray eyes were brilliant with excitement. It seemed to her but a matter of a few hours now when she would be with her own, Yet she could not but notice that curtous observance of detall which comes at moments of intensest excitement the varled colors of the distances that

Making Tea for the Noonday Meal.


opened before her. The great mesa on which she sat was a mighty peninsula of chalcedony that stretehed inte the desert. It was patiched by rockr of lavender, of yellow, and of green, and belled over by the intensity of the morning कltue nthove
"Come!" sald Kut-le, "There will Re little rest for us to-day." steps, then sat down.
"I can't start yet," she said. "I'm oo worn out
Kutde's expresslon was amused
while it was Impatient wis While it was Impatient
"I muppose $y$ fit may be aleepy, but I think you can waili a Hittle way. Murry, Rhoda! Hurry!"
Rhoda sat staring
Rhoda sat staring calmiy finto the palpitating blue above.
"I hate to have you carry me," she
ald after a moment ""hut I don't feel kald after a moment. "Wut I đon't feel all like walking:
Her fired face was frresistibly lovely as she looked up at the Apache,

distance under the desert sun. But Kut-le kept the pace long after the two squaws were half leading, halt carrying the gift.
Rhoda had long since learned the uselessness of protesting. She kept on until the way danced in reeling colors before her eyes. Then without it sound the dropped in the scant shadow of a rock. At the ery from Molly, Kut-le turned, and after one glance at Rhoda's white face and limp flgure he knelt in the sand and lifted the drooping, yellow head. MPolly unshung her canteen and forced a few drops of water between Rhoda's lips Then she tenderly ehafed the small hands and the delfeate throat and Rhods onened her eyes. Immedtatoly Kut-le lifted her in hin armas and the filght was remamed.
At ehort intervats during the mornIne, Rhoda walked, but for the most part Kutde paeked her at dleptsmfont ately as if sha had been a lame puppy.
but by an effort he remained obdur-
ate. "You must walk as long as you
can," he insisted. "We have got to can," he insisted. "We have, got to
hustle to day!" "I really do
sighed Rhoda. sighed Rhoda.
"Rhoda!" cried Kut-le Impatiently, "get up and walk after me! Cenca, see that the white scuaw keeps morIng!" and he handed his riffe to the brown hag who took it with evident pleasure, Molly ran forward as if to pleasure, Molly ran forward as if to
protest but at a look from Kut-le she dropped back.

Rhoda rose slowly, with her lower Iip caught between her teeth. She followed silently after Kut-le, Cesca and the riffe at her shoulder and Molly in the rear. It seemed to the girl that of all the strange scenes through which the past weeks had carried her this was of all the most unreal. All about her was a world of vivid rock heaps so intensely colored that she doubted her vision. Away to the south lay the boundless floor of the desert, a purple and gold infinity that rolled into the horizon. Far to the north mountains were faintly blue in the yellow sunlight.
Kut-le header straight for the mounlenting. Aimost immediately Rhods felt the debilitating effects of over heat. The sun, now salling high, burned through her flannel shirt until her flesh was blistered beneath it. The light on the brilliantly colored rocks made her eyes blink with pain. Before long she was parched with thirst and faint with hunger. Thls was her first experience in tramplng for any

He held her across his broad chest as if Fier fragtle weight were nothing. Lying so, Rhoda watched the merelless landscape or the brown squaws Jogging at Kut-le's heels. Surely, she thought, the anclent mesa never had seen a stranger procession or knowa of a wilder mlaston. She looked up into Kut-le's face und wondered as she stared at his bare head how his eyes could look so steadily into the sundrenched landscape.

As she lay, the elation of the early morning left har. More and more Burely the conviction came to her that the Apache's boast was frue; that no White could catch him on his own ground. Dizzy and ill from the heat, she closed her eyes and lay without hope or coherent thought.
At noon they stopped for a ahort time that Rhoda might eat. Their resting-place was in the shadow of a beetling. wreatherbeaten rock that still bore traces of hieroglyphle carvings. There were broken bita of clay pots among the tufts of cietus. Rhodn stared at them languidly and wonder ed what the formotten vessels cuuld have contalned in a reglon so barma of life or hope.

Kutale strolled over to a cat's-claw bush at whose base lay a tangle of dead leaves. With a bit of stick, he scattered this Iltter, struck the ground several good blows and returned with a string of fat desert mice. With infinite, care Cesca kindled a fira fo tiny, so clear, that scarcely a wisp of smoke escaped into the quivering alr. Into thls she flung the eviscerated mice and in an instant the tiny things. were a deltcate brown. The arons was pleasant but Rhoda turned whiter still when Molly brought her the fattest of the mice.
"Take it away!" she whlspered Take ft away"
Molly looken at the girt in stuptd surprise
"You must eas, Rhoda zir!!" sald Kut-le.
Rhoda made no reply out leaned Himply agalnst the ancient rock, her zolden hair touching the crude draw. Ings of long ago. She was a very dif. Perent Rhoda from the eazec girl of the early morning. Sho ignored every effort Kat-le made to tempt her to eat Her tired gaze wandered to her hands, stift blood-grimed, and her cleft chin quivered. Kut-le saw the expressive Iittle look.
"t'mt rorty," he sifd stmply.
Rhoda looked up at him
"I don't belleve you," she returned calmly
The Indilan's Jaw stiffened
"Come, we'll start now."
The afternoon was like the mornIng, except that the sun was more ing, except that the sun was more
burning overhead, the way more burning overhead, the way more
scorehing underfoot; except thet the scorching underfoot; exeent thet the course became more broken. the wrackins wracking. Al1 the afternoon, Kut-le carried Rhoda. At last the sun sank below the mesa, and the day was ended
The place of their camping seemed to Rhoda dnmp and cold. It was close beside a upring that gave out a falnt, inlamnte odor. The bitter water Wias grateful, however. Agaln more mice were seered over before the fire was stamped out hastily. This time Rhoda forced herself to eat. Then she drank deeply of the bitter water and frank deeply of the bitter water and fay down on the cold ground. De-
rplte the fact that she was shivering kplte the fact that she was shivering
with the cold, she fell asleep at once. With the cold, she fell asleep at once. Towand mfdnlght she awoke and movfig elose to Molly's broad back for warmth, she looked up Into the sky. For the finst time the great southern stars seemed near and klndly to her and before she fell asleep again she wondered why

At earliest peep of dawn the squaws were satir waltins for Kut-te, who shortly stargered into camp with a (Contintied on page 18.)
$\qquad$

## The Upward Look

## Little But. Momentous

EHOLD how great a matter a lit-
tie fre vindleth. - James 1 it Acconding to the Yames $8: 6$. inguest $\$$ \& was only a mutch, that the elther been thrown or awept thato the Wanteflue which catued a graat flate recently in our napital, serieunty dire aged a lanse hoapital, sund cantyed the death of four litule chlliren. salused the was reaponsithlo for the kouling in of mateh.
It mas fust a lltele word that was last eceated a mertoms another, that at hitberto harmonions divinton, in il one was reaponaithos churah. Soqeit wes onty a llitle for that word, and if was but a pasuln.
burned inte the heaift of tha deut it mother, and hurt for yeara to comed A daughter wart ferpensibile to come. ooks, and it wins but a leok
rible thegedy ts, that the whols terrinde tecgedy is, that the arrat harm and decp wrong which were the conor look, eannot be undoris , whord. or look, eamnot be undorie Thouth mean to, that doend ngt oxonerate him: As Godes law does, wo wuat nuffer the consequenees of our acts. But if this is se whe evil, it is alino so in regara
to good. ogood.
That little zroup of consecrated men, that hetd that firat forsify mis. had no meeting under a hay atack, had no Ides that that would develom toto the zreat presebt world-wide mist sionary board. Those moll were responsthle for this, and thare were re ow of tham. All areat nemults had to oriciaate from one man and anti 1 col is hes ne morement.
It has nevar, por hever will be permittiad any one to ane the arreat grand results of his small besiuning. Cland's developrnents are too intinite for that, but \#fe perrutts homeone to hare the areat peivilege and erand opportanks of having his the first aet, however small it tany bge-1. H. N.

## Hoarding Should Not be Practiced

$T^{\text {HE Bood controller nays: Hoard. }}$ ing is one of the new worde of the war. It meoans atoring in axcess of requirements, enepectatly of storlag and layine at present. Now up for roal neede up a prudent sup. peace timees: but the not a erime in who wiltully and the man or woman to store more food than foeldes to-day Fould buy' In ordthary times, is some mould buy in ordinary times, is cam. Infuct of a erime that ham the moral te infer the price to himatifo holping supplifen. the priee to himaelf of futurs There
the people of Canada. for panto among
pect to make must ex be willing to modity food aacriticles and and even to moat lesy our sating hahits, soldiers ant our Alle order that the There is a morlif Allina may he fod. caune, so far as we fact of fonds beconcerned, other people have had to be withdrawn from farms to fight what to our jofnt fight. Our obvious duty fis to aild them by, at least anfonsing duty in to much food as they used to get hutore they took up euy used to get bufore
There hau hean common tank.
Canada of augar, flour, "hand pertis" in canada of augar, flour, and perhap other cofy modilies. The practice for the affect of of amall proportions and Fideration may reaures now under conof the Canadian result in the exponare
 The better elemeary and unpatriotic. will refrain from its in the community Will refrain from it so far as their Win households are concernad, und stevewhere.
Often people will hay large quantif.
of the these foods without thinking depriving othera. Every may be Canadlan will do well to remolye patio we will "play the game" fairly with his neighbor, and with the with clases, by purchasing food onty th normat quantitles, whifle the onty in emergency lasts, and by the present hoarding wherever the finds evidence

## Manitoba Farm Women <br> Organize

Aof the Mant annual convention Assoclation, held Gain Growers' very interesting and important part of the proceedings was the amending bo the constitution wo as to amending for a women's, section in the asosocla-
tion. The women felt tion. The women felt that they conld to more effective work as a women's seetion than as members of a women a resolution to this effect was local, so before tae convention, with the result that ic was unninimously passed. Another resobutlon whased
hrought before the general was tion was one akking that a sumenmoney be set aside for the sum of the women's section, and it work of celved the hearty endorsatton of rentire convention. endorsation of the The value of a
facized to watch hody of women or Wras domonstrated again when Crain Orowers passed a resolution anicing that farm fimplements be al. lowed to come into Canada duty free.
The Women's Section polnted ont The Women's Section polnted out that this reaolution should also include the Allowing of household labor savers to ther duty frbe. This was agreed to. The teaving out of such an important atem could not be called an overalght on the part of the men, as the women were there to look after their own best intergats and to speak up on their own behafit.
Women'r resolution passed by the Women'n Beotlon was that the goverament be aifked to establish- in the colloge of akriculture whort cournes for the benefit of momen whe with to undertake veltable forms of term lator. There are women tho hare the streagth alue सillingness for ane aervice, but if sent out to the furm homes absolutely "green," it farm aot only be a severe tax on the pats ence of the Tarmer and this wife , bet would alse take up a rreat deal at time in teaching abinolutely simple things. A practical short conrse il was thought, might at least sive, in tnaight into the work that would be expected of the workers.
A feature of the buasy three days' eonvention of the Women's Section that was productive of much good was the attendance of delegates from the alator furm women's organizations of Whe other pratrie provinces. Mrs. Walter Parliby, the live prealdent of the United Farm Women of Alberta, In addreneing the women emphnaized The place of women in cooperation. The rural life movement cooperation. a part of rural evolution thas become Uife as natistying as tite make rural One of the greatent elsewhere. Iife of this country ts 148 patio the rural hearted, pieneer farm patient, largeaperation should be women. - Co every rural woman for watchword of so . musch by virtien, of they need it Buid Mra, Parlby of their inolation," be applled to womeoperation must home, the to women's place in the and in the larger life municipality. stuccess of this cor iffe. The ultimate the lap of the coops, of the women of by in firm grasp fural Canada. Only word can ancecen the meaning of the the farm womens attend the eftorts of tation of the fermern far the organleconomic muat get and materialistic. They Work more for from the matertal and varions mere for the principle of the the bith idents anes it not always ganization ids foung ung which our or. an fination is founded which make for of womes ing thls movemiti. The part
ments, and progress of these movements, and assist in thetr evolution." E. C. Wieneke, of the secretary, Mrs of C. Wieneke, she pointed out some of the lines of worik in which the Women's Section of the M.G.G.A. will need to devote their efforts through
out the coming year "We out the coming year. "We must wage incessant wartare," she said, "agains the double standards of morals, ven ereal disease and the white slave traific, the crime of extreme wealth
and abject poverty. Then the proaent and abject poverty. Then the present educational method of cramming, so provalent in our public schools. should also receive a share of our attention. We must also conalder the possibility of an attempt to introduce military training in our public mehoole. however, fs the welfare of the fulle Sclentists is the welfare of the child. Sclentists and philosophers all claim ulcate we took as much pains to incuicate good principles into the chitd wo would see far greater resulss. Therechild to the work to place around child Hife the wery bent possible en

Many other splendid addresses of practical nature dealing with the probManitoba were siven and province of at the convention went back present homes with ant went back to their homes with an increased enthusiasm
for work during 1918.

SoupRecipes From a Subscriber readern, Mrs. Cariboo Dist., B.C., has sont yis some economleal soup recipest in answer to our request in commection with the article on soups comnection peared in our lame of Jan which ap these if white bean soup and is made as follows:

One cup beass; one cup milli; cup tomatoes: one carrot; menk; one a little pamsley; butter and one onlt son; beans over night and in the morning put in a saucspan with four cups boiling water. Cover tightly, and when quite tender add grated carma when onton and tomato pulp the latter may for hale as if not on hand). Boil aln a coarse polander. Ade mill through alt and parsley. Bring again, butter, boll and serve with toast or the bread fried in crisp cubes.
Another recipe is celery soup, which eelery. by chopping fine two roots of three and to this one cup rice and celery milk, pree tender. Scald three cups sieve, preas rice and velery through a Then add the water drained from them. the add the water, rice and celery to the sealded milk. Cook 15 minutes, Mrs and serve.
Mr. Oathoun also adds: "Have you fing way: cooking potatoes the foll v vessel of Drop warhed potatoes in a vessel of raplity bolling watar and a! fow them to remain 10 minutes. Romove and strip the thin akia ss when potatoes are peeled after thorough cooking by bolling. The potatoes will atdil be practically raw and may be handled like raw peeled potatoes in preparing any dish such as scalloped or fried. One excellent way to cook the skinned potatoes is to hake them, When the satire potato, includiag the thin, golden brown crust, may be eaten.
This auggestion was made by a United States housewife and tested by the U.S. Department of Agriculture. It potuces the discarded portion of the In the o minimum, for even baking jacket jackets means a loss (if the mest of not eaten), since aome of the fened skin and is discarded. We enjoy potatoes baked as abovove."
"I hear you are thinktog of buying "tarm."
"That's nuy intention," sald the city "Weal Aon't torset
of ailes., "on't forget the tmportance "Truat
or - to these that, atr. By the way famolinetr-Airminghomaname Abe-Herald.


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won his succran hiv tet ollas up in success by getting folks up in the world. Weetore dibe let him call yes, the
 Farto iotide
All Wivilor ase mede in the tane
natentad mating Nexterer method of
 findid Hock tim, they all heve many Hend Looth haty fichive many byour drater thas thet, Ais Ber is


## A "Sinking Fund" for Your Home

WHEN the wife of a business man visited him in his office one day, she heard him mention " sinking fund."
"What is a 'sinking fund?'" she asked.
"Something we put away in the business to provide for a rainy day," he replied.
${ }^{\text {at }}$ The business then has a chance to tide ithielf over a fanancial crisis should its income be re-

## "Yes."

"What if your own personal income that maintains our home should be entirely cutcoff forever ?

With pride he answered, "I have provided for the maintenance of our homen 'sinking fund' in the form of Life Insurance-and there is no element of chance about that."

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## The Mutual Life <br> Assurance Company of Canada Waterloo, Ontario

## The Heart of the Desert

## load of meat on his shoulder. Alchlse

 was with him."Mule mest!" said Kut-le to Rhoda nothing to find borses but there was brousht but an old laine mule. I "Heavens!" ejaculated Rhoda
The squs!" efaculated Rhoda. the meat Into otrins whleh thenting the meat into atrips which they hung over their shoulders to sun dry durligg the day. Alchise $p$ cleansed a length of mule's intestine in the spring, to serve as, a canteen. Rhoda gave small heed to these preparaLions. She was too ill and feverinh oven to be diagusted by them, she refused to eat but drank cometantly from the spring, When at Kut-le' command she took up the marol with the others the young man eyed her anxiously. He slung Molly's canteen from his own to Atehtae's shoulder and fell Rhoda's pulse.
"This water wat bad for you," he within miles. Perhas onty apring hnow off thes. Peffects of you wit into the heat of the sim."
Rhoda inade no reply but staggered miserably after Molly. The epring lay in a pocket between mountafin and mana. The mountalna seemed cruelly high to Rhoda as she looked at them and thought of tolling acrose thems. With head sunk on her breast and feveriahly twitehtug tiands ahe followed for half an hour. Then Kuthe turned.
"I'm soing to carry you. Rhoda," he sald.

The sill shrank away from hfm. "You and Molly and all of them think 1 lm just a parasfte," ehe muttered. "You don't have to do anything for me! Just let me drop anywhere and die!"
Kut-le lopked at her otrangely. Whthout comment, be pleked her up There was a sternly tender fook on his face that never had bsen there before. He did not carry her dispas slonately to-day, but very gently Something in hls manner plerced throughr Rhoda's boif deliriumeand she looked up at far with a faint re plica of her of/2 lovely smile that Kutle had not seen nince he bad stolen her. He trembled at its beauty and started forwand at a tremendous pace.
"III get you to good water by
noon," be sald. noon," be sald.
At noon they were well up in the mountaina by a clear spring fringed with arpens. Watercress grew below it and high above V, were pines and funipers. It was e spot of surpassing loveliness, but Rhoda, fossing and panting, could not know it. Kut-le lald his burden on the ground and Molly drew off her tattered petticoat to lay beneath the foverish head. The young Apache stood looking down at the little figure, so graceful in Its boylsh abandonment of gesture, so pitiful in bathed the burning face and Molly the pure col 1 water, muttering tender Apache phrases. Kut-le constantly fn. terrupted her to change the gtrl's position. For an hour of so he waited for the fever to turn. By three o'elock there wat tno chitire for the belick and he left Rhoda's stde to pace back and forth by the spring in arisious and fort
thought.
thought.
with stern came to a conclusion and Whth stern set face he fasued a few short orders to his companions. The canteepn were realled. Kut-le lifted Rhoda and the irall was taken to the weat. Alchise would have relfered him of his burden, willingly, but Katle wonld not issten to it. Molly trotted auxiousiv by the young Apache's side, constanty moistenigg the gtrl's lips with water.
Rhoda was quite delirlons now. She murmured and sometimes sobbed, trying to free herself from Kutle's arms. "I'm nof siek," she sald, looking up into the Indian's face witls unseetng
syes.". "Don't let him see that I am "No! Not Dear one!" answere Kut-le. stck [" she "Don't let him see I'm sick [" Bhe sobbed. "He hurts me sol"
"No! No!" exclaimed Kut-le huskily. "Molly!" panted Rhods, "you tell hlm how hard I worked-how I earned my way a little! And đon't let him do anything for me!'

CHAPTER XI.
The Turn in the Trall.
difficuls trail along the monntain long a rich study in degrees: Rhools was Iragile Cattcasfan, a product of the Tragile Cattcaslan, a product of centIndian, with the keend Kut-le, the clous courage, the cunnins, the ferocous courage, the cunning of the In dian leavened inextricably with the thousans softening Influences of a tlon of years contaet with efriltra tion; then Cesca, the leapand stoica! product of an anclent and terrible Bavagery; and Alchlse, her mate Finally Molly-squat, dirty mollythe stupid, squalid aborigine, as dis. tinct from Cesea's type as is the brown snall from the stinging wasp. Alchise, striding after his chief, was smitten with a sudden Idea. After ruminating on it for some time, he commanicated it to his squaw. Cesca shook her head with a grunt of dtsap proval. Alchise insisted and the disaplooked at Kut-le cunningly
"Quien sabe"'" she sald at last.
At this Alchise hurried forward and touched Kut-le on the shoutder.
"Take 'em squaw to Reservation. Medicine dance. Squaw heap sick. Sabe?"
Reservation's too far away:" replied Kut-lo, shifting Rhoda's head to lie more easily on hfs arm. "t/m makug for Chira."
Alehise shook his head vigorously. Too many mens! We go Reserye - Alchise help carry siek squaw " "Nope! Yof're way off, Alchlse. I'm man's medicine the get some white so afrald of getting quinkest. P'm not her getting a bad ron of fever I sm of friends at Chirs." run of feven. I have Alchise fell
Alchise fell back, muttering disap poiatoen. White man'月 medicise wa no good. He cared little about Rhoda but he adored Kut-le. It was neces be sayed since that the white squas be saved, since his chief evidently wa. quite mad about her. All the rest of the day Alchise was rery thoughtful Late at night the next halt was made. High up in the mountain on a shelter ed ledge Kut-le laid down hls burden. "Keep her quiet till I get back." he said, and disappeared.
Rhoda was in a stupor and lay quietIy unconscious with the stars blinking down on her, a limp, dark heap ashinst the mountain wall. The three In: dlans munched mule meat, then. Molly curled herself on the ground and in three minutes was snoring. Alchise. stood erect and sitill on the ledge for perhaps ten minutes after Kut-le's depariure. Then he touched Cescs on the shonlder, lifted Rhods in his arms and, followed 67 Cesces, left the sleep ng Molly alone on the ledre. Swiftly, silently, Alchise
the mountainside, Rhoda making neither sound nor motion. For houre, with wonderftyt endurance lho two dfans held the pace, They mored inthe mountain to the mum moved up they eronsed then downward. Just at dawn thopldy ped at a gray 'campos' Hichise stopplnes and called A under some plues answerel him voice from the was put haplr, and The canvas lap appeared folitad an old Indlan buck appeared, followed by several squaw and young bucks, yawning and staring

To be Coatinued.
Speak Geutly, it is Better far
Your Temper not to tax.
Speak sently once or twice, and them
Wade In and take en exe.

A FORTUNE IN POULTRY
 liareaso your CEE Choice Soch or Cockeral ot our Mut Hecord Locks, Wyandottes,
Leghorns of Reds
1918 Mating Lhet con:taining os photop of
stock, buiflings. Feed
and tonto formulas

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=ELMGROVE FARM $=$
Bronze Turkeys, Embden Geese,
and a few good Rouen Drakes and a fer
for sale.

Write for Prices.
J. H. rutherford, alsion, ont.

## FEED YOUR FOWL STEVENS' Grefen grould boit 

 FOR SALE AND WANT ADVEBTISIMG THREE CERTS A WORD, CASH WITH ORDER
 MUSIC

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## Gasoline aad Kerosene Engines,  soaid, larma and lawn temice Writio for price lint. 251 King A.t. R. WUND. Tor



Various Shades of Blue to be Popular




$S \begin{aligned} & \text { DNCE the war zetiree the complaints } \\ & \text { hav }\end{aligned}$ abio poor sianden or bive which anarg the Abis for drans materiatk Notwitheandin. bitowing a greour, the nowerm ailtaing Chinatirat Efeat number of blue thader is Ahzot of puenor kie nownat, Another ot bote blue and frreenich yad dugresuly verito zailer which proantua to gioen the
 At tatrete, Thould bo perter nortan such
 but and aometa droes nhould rocivi When conpomed The fon thatia not bo hot, 18 It wil have a tendenoly to crack
the silk. Larke plis or nendes shot avolded an they plin or needles should be hard to get rid of. The holed which are
noedle should machine noedle should have a good point A trac.
ing wheel should nnt ho ing wheel should min be uend on ank,
but rather use bantig threads to indi-
cate any marks in the potlen
 tume has several atyle foatures to reeian.
mend it. in the fing
 aliti likewise. In thisato wattolin and the Which mirht be utilimed to adranialtern in neveral wayn. The model eals for two patcerns, is cents for each. The blouse measure, and the skirt from 22 to of inthen waint manaure.
2359 Girl's Draks
ntyle for the little womant it it a a dainty
styliah appearance strlish appearance and yet ts not a funty, The bolero effeet with the wide
sirdle showing benvett girdie mhowing beneath looks attractive an dons eleo the nantly dhaped collare.
Either long of thort alegres muy be lim. Four aliten: of short slepve may be uived. Tras-Glicp Dress.-Thls ititile drea father out of the ordinary an ft has is
belt spound the baele and aidies hut met in belt ar pund the baek and nides, fut has a
fror the front belng laid in a doublo Plat to form a wide panel. it mokle bes tp
much a dromis for nummer. much a dromis for nummer wear, it would probably bo well to utlise the nhort sleeve
pattern, but if for winter, the lone slecve pattern, but if for winter, the long aleeve
pastern may be nsed. Four sivesc 2 , 4 ,
8, and 8 yearn. 2341 -Dress for Misses and 8 man Wo-
men-There are many, many styles of
one-pince dressea, but thin ane in probably ane-pince dressea, but thin one in probibibly
docidecty different from the majority. Note the efffeet of the upper the mortion berity.
int folned to the alict to form be pearance of a yoke. The fargo porkell wifl be onity trimentas on the alitht A preterred, the bollar may be buttoned, clopely at the coller may be buttoned, up
and 20 years. Thres sizees is, it

to jot conaldernble cold weather are Ifeoly
 one for the boy who is out in all kinds
of weather. It has a werm apal And ehould it has a warm appearance and mhould be found very ervicenble
Eive alzen: s. $10.12,14$ end ye -5 ett
 should fit neathy in front is hers athown. that
it is a complete coveral and in It is a complete coverall and in hot sum: dress when dotns ug the mornling work
Four sives: mour sizen:
atmole-Girl's Dross,-Here in a very
 Int material for collars and cuffic, takem
away the plaln apptarance. Four slaes: 4, 6.8 and 10 yonrs.
When making uD the and Drawersforink and ame un the whitewear for but pery neat t As wheful it in se not simple, bunall view, the drawers met mot be by the
nowing or, mande with flowins or mado with a band at kneon. Bix nitent $2,4,6,8,10$ and 12 yearm nuch as this one mistht well be followed Wear. The vent affect side ato mornoon of a dreaneup elfeet than many houne dresa canolas. The poekete with the tonch of
 it to 40 Inchen buat manasure.
Our Spring and Summer Catalogne is
now ready for distribution, contalalng $\$ 60$ Genimh of Ladiest, Mision, and Ching 560 Fatterns An extra 10 cents Cont alone With your pattern order
catalogue to your homes

AVary the Fish Dishes cCORDING to reports we will soon have to use fish even more have been doing up to the present, on account of the scarcity of beef and other meats. We may as well prepare palatable recipes for serying find and posaible, in order that varlety. Here are two or three recipe to add to the list:

## Fish Pie.

One-haif pound cold fish (salt or fresh); one pound bolled potatoes; one tablespoon milk; two tablerpoons butter or dripping; salt and pepper. fully the skin off the fish, and carewith pick out the bones. Break it up salt the potatoes, butter, pepper and smooth over the top and brush with mifle. Brown in the oven.

## Scalloped Fish.

One pound cold fiah; two table spoons butter; four tablespoons flour; two tablespoons bread crumbs; onehaif pint millk; salt and pepper. Take the ikin off the fish and pick out all bons, taking care not to break up the fins mare than necessary. Malt the butter and blend with flomr, add milik gradually, also pepper and salt, sind flakes of fish and let them heat hrough. Lay the mixture neatly on flat dish and sprtnkle bread crumbs over. Set in oven to heat through and
browis.

## Fish Cakes.

One-hal؛ pound cold fish; one pound cold potatoes mashed; two tablespoons buttor; one or two eggs; bread mix with the potatoes, plek out bones, and salt and add the yoll of pepper and salt and add the yolk of ege well beaten. Mix all together. Form into Bmall round cakes and rub with tlour. Beat up white of egg. dip balls in egg

Lunenburg salt Cod.
Soak the cod not less than 24 hours, pour off water, cut into small blts, put inta cold water, bring to a boll, pour twlce, renew/ng and repest once or water. Then add equal guantity of water. Then add equal quantity of potatoes pared and diced. Cook until pork seraps together Fry onjons and pork scraps together until onions are deep dish and pour onlons on top.

Salmon or Trout Chops.
Make a white sauce by melting on tablespoonful of butter or butter subsititate, add two tablespoons of flour, one teaspoon of salt and ons elghth teaspoon pepper, blend well Add one cupful milik slowly, sthritu constantly. Cook untll mixture tb) ak evs, then add one cup drled bread erumbs and a can of salmon, or an equal amount of bolled trout or 8 sl mon, which has been dralned, washe and all bones and skin removed. Shaps like chops, roll in flour, put stiek macaront in end to aimulate bone, an
fry in deep fat.


Raising Funds to Purchase Yar

HOW to ralse funds to purchas oftentimes quite a probiemes many Red Cross societies. A schem recently tried out by the Apple Grov Grange, Elgin Co., Ont., for roptenfs) Ins the treasury, may suggest on filea Cross work This Crangeations in Red Cross work. Thls Grange dectded Hall at Middlemarch, and the Grang fry invitation was sent and the follow Ing invitation was sent out:
A birthday party is glven you We something novel, 'tis nothing new, We send this little sock for it, Please fill it in the yarn to lrnit, With as many cents as you are old We promlse the number shall nev
be told. Socks. will be provided. at the door.

Fobruary 14, 1918.

## FARM AND DAIRY

Ayrshire Bre,ders Endorse 300Day Test
(Continued from page 15.)
Elgin. Ont., seconted
Stewart, Camphellford, Ont by Wm. decided to place a diford, Ont., it was marktngs of each animal on of the gree as on the applimat on the pedistead of a written depection form inofficers for 1918.
The electlo of officers
the following: Prealdent, E . T . T in Montreal; - Viee-President, A. J. Tarte, er, Ryckman's Corners; A. S. Turn: Treasurer, W. F. Stephen, Suntin: don, Que.; Dirsetorn Hawick, Que.; Fred McRae, R. Ness, town, P.ELL; MI, St McRae, CharlotleQue, Hector Cordon Marie, Compton, L. J. Tarte, Montreat; chute, Que, Montreal; J. H. Black, Latngdon, Que.; W. W Rean, HuntStratford, Ont.; Alex. Hume, Cump: bellford, Ont.; W. H. Hunter, Grimaby Ont.; F. H. Harris, Me. EIgin, Owy, John Mckee, Norwich. Ont.; A. H. Trimball, Red Doerw, Alta.
$\mathrm{Mr}, \mathrm{H}, \mathrm{B}$. Arkell Was elected Hon. Campbelltord, an honorary Stewart, of ber .

The Price of Bran and Shorts $\square^{\text {HE }}$ approwingately statement, showing abould be patd for bran arices sharts in Ontario, has been traned by Mr. F. C. Hart, director of the Market Branch of the Ontario Department of
Agriculture: Agriculture:
Regarding
Regarding brar and shorts, it should being exported, of is likely to to be la ported. All hras and shorts manutactured in Canada are therefore arail able to farmers or farmers' orge avail-
tions, and may be ondemalions, and may be ordered tin itrinizht appears that wirect from the mille It ing the bulk of bran and shorts manufactured in the weat. The manuavailable for Ontario, therefore ts practicalty ouly that manutactured in Ontario mills. In order that it may in be used in Ontario, and nol accumulate at the mills during the summer
months, this months, thus affording a reseon for ex. port, farmers wauld be well advised to purchase during the non-feeding sea-
son. ${ }^{50}{ }^{\text {Th }}$.
The priees as fixed by the Feod Controller' Onder No, 5, under date of foc. 1rith, apparently mean ahout $\$ 35$ for bran and $\$ 40$ for shorts at Ontario
mills, depending on frelght mills, depending on freight rates and

1. The maximam prife Bran. Shorts. at Fort William and
Port Arthur
Port Arthur ....... $\$ 24.50$ $\$ 89.50$
Freight charges to Frefght charges to dostination
$\begin{array}{lll}\text { Cost of bagn, aboutr. } & 6.80 & 4.20 \\ \text { Any rebe } & 6.80\end{array}$ deductions or other
$\$ 35.00 \quad \$ 40.00$
That the the custamer should know from his thvoloe the ftems making up
the total coat which fem pays the total cont which hee pays. In buy. ing at the local mill door, therefore,
the farmer should pay not more then the farmer should pay not more than
$\$ 24.50$ for bran, plus cartoad feight 32.50 for bran, plus cartoad freight
rate from Fort Wimiam to the mill rate from Fort Wiliam to the mill,
plus cost of bags. In ordering from, plus cost of bags. In ordering from
the mill not fin hls own neightiorhood the customer pays the local carlond freight rate from the mill to his own station. In buying less than carloadis from local dealers, such local freight Order No leas than-carload rate.
ing the additional charyns. theth, limitlag the additional cbarges that may be
made by dealers, whether Wholesale or retal, whether dealing Wholesale or retail, and by millern When deaing retail, states that on and after the 19th dry of Jin., 1918, the amount charged for bran and shorts
may not exceed: hay not exceed:
warehouses or premiseng to out of their warehouses or premises to consumers, 10 c pert hat their rallway station, plus Bran in bulk..........., Bran in bulk ................ $\$ 24.50$

Freisht
Bags
 aecording to the following example:
Bran in bulk ............. $\$ 84.50$ Freight - . Additional charge per ton. 1.20
2.00

Where delivery is direct from then car, the dealer may charge only 5 e per bag of 100 lby . additional.
direet to the miller sells at the mili ten tons and conasumer in quantities prices as mamed, he must sell at the prices as named in Order No. 5, dated Quantities less
qot more than 5 c per than ton-ton Iots, may be added, 5.5 per bag of 100 lbs Bran in bulk
Bran in bulk ............... $\$ 24.50$
Freight
Bagas.
Add charge, 20 bags © ©.....

| 4.20 |
| :--- |
| 6.30 |

1.00
(Where the purchaser supplies his
In a case where fran is shipe from a mill where it is produced to another point, and there sold, the ex-
ample is as follows Bran in bulk
Frelght from Fort William. . 824.59
Frelght from Fort William to
point of milling 4.20 Freight from point of mili-
ing to destination 4.20 Cost of bags ............... $\quad 1.20$
if this ware dealt out $\quad \$ 36.30$ o would add to it the by the deater

## This

 4 doints $1, j e n t 5$10505
(21)

Brap in bulle
149 Bailey grow Wisconsin No, 7 and stock and cob, The Bailey has a good Wisconsin. We believe , ander than the get better seed of the early, that we varieties. The Wisconsin, maturing a heavier cropper. When we have, is mixture, if the Wisconsin we have the minate well, we will still does not gerFreght from Fort William
to point of minling Frefght from point of min. ing to destination, say... Cost of begs ............... Add charge, 20 bags (i) 5 c ... 1.20
6.30 Shorts, which includeg $\$ 37.20$ dive dollars above these fareddings, ave dollary above these figures.
C
"Canada Weekly" offers a series of cash prizes, of which the first is \$500.00, for the correct solution of the following mysterious message

## naK Can You

 fetrhooedmráLsy. Tarblbte
## gs.



## Noted Criminologists Suggest Solutions

Selecting a capital letter as a atarting point and count. sed upery mecond or third letter until alit the letters are Scott. would surely produce some result.-Ihapector
Watson and 1 woold procure a mirror and reflecting the "serap of paper" endeavour to decipher the hiddtea Beelin
Beginning at a belected one I ahould read every other letter ofr every third letter. 1 bleld read every other solve thin mystery.-Arsene L Lupin.

## 

| Ist Prize. . . $\$ 500$ | 5th | Pr |  |  |  |  |  |  |  | H | Rizes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | 6th |  |  | 10th |  | . $\$ 10$ | 13th | Prize |  |  |  |
| ". .... 100 | 7th | " |  | 11 1th |  |  | 14th |  |  | 18th |  |
| * .... 75 | 8th | 4 |  | 12 12 | " |  | 15th |  |  | 19th | * | 21st to 100 th $-\$ 1$ each. $\$ 1,117,00$ altogether


to anbercibe or take of the mese otimple rules in adoance 1 write gour wolution of the mine the mugazine or spend any money in order to competion in thy pour part cotrer.
 3 Thi ludime ot tho enerle to chis conter will bodono by thre
 Dept. 18 VANDERHOOF, SCOTT \& CO, LIMITIED, 35 Lembard Street,

 Pop thake the magasiae rejulariy. will appeal aad who wili teatant in onoh pr by a prisis polected by hite to pay each cone


LIMPIED, 35 Lombard Street, Toronto

## The Farmer's Grain Exchange 

SEED CORN
 Mivo widut mo
$\$ 31.50$ per bus. Bags free. R.R. No. 2 .

ESSEX, ONT,

## HIGH GRADE SEED

Hegistered ist, Generation, O.A.C. Na. 12 Oate $\$ 2.00$ per bushel, Government
Germination tost 97 per cent. Lmproved O.A.C. No. 72 oats, grown froms strains of regintered seed, $\$ 1.60$ per bushel, Government nermination test from strains
or ser cent Resiatered O.A.C. No. 21
isarley, $\$ 2.69$ per buahel, Government rest 98 per cent. 97 per cent. Improved O.A.C. No. 21 barley, grown from strains of registered eed, $\$ 2.00$ per bushel.
The above grains have been produced from earefully graded, selected seed Guaranteed true to variety. Free from smut and noxious weed seeds. Sonall duced on our own seed farmu. Samples ent ont requeat. Sacks offered proRUTHVEN BROS
R.R. 2 ALLISTON, ONTARIO

## SEED GRAIN

E VERY farmer in Ontarlo ahould make a supreme offort to secure choice
seed for his 1018 ceropa. Now in the time to make sure of it Don't delay. Wise farmeraps. who yearly sow the best posmible geed ure in the - $\qquad$
 Diry to ind thosen who need it. As to reailts fuet roand that Farm and Farm and Dairy, Dear Bire,- Enclosed plonse
find money and money, order, being
amount for ad. Wphad good
suceent suceses Could bave sold
three times, the quantits three times the ac
oata wo had.
Yours truly,

## 

## Beginning with Pebruary int hasue wo ahall publith under the hending

## THE FARMERS' GRAIN EXCHANGE


FARM AND DAIRY
Peterboro, Ont.

## A Big Help to Your Wife and You

jom tor the pare inm mime
,


Better - Cheaper


The Jage Line in complete. Two cyper to chooase from-one burning gapoline: and another burning gasolinn
The Prea Farm Engine is sold from the factery to you. This sives you a better engine for your money as no ouren's pronts enter into the transagents

> Send for a cataiog to-day. It will help you to choose an en. gine of the horse-power and type best sulted to your needs.

# The Page Wire Fince Company <br> Walkerville, <br> Ontario 

## The Makers' Corner

Butter and Cheese Makers are invited to send contributlona to this
departmiont, to ask questions on mattert rointing tok chasos mans on
and to suggest subjects for disoug:
alo sion.

Homemade Rennet
$\mathrm{C}^{\text {AN you Elvo mo my ithormation }}$




Homemade rennet as a coazulant is not nearly up to the standard of the commereial article. It ahould only be used in cheese making as a last resort. Directions for saving rennets and for use in cheese making are however given herewith:
Nos, 1 and ${ }^{2}$ - Only rennets form aucking, or milk-fed calves are valuable. The stomachs of calves fed on grass or other solfd food are not good for the purpose.
No. 3 - When the calf is killed, im-
mediately cut out the rennet, iear. ag a portion out the rennet, learthe book) attachet the third stomach tration). Carefully to it. (See illuscontents of the rennet (consisting of coagulated milk or other partially of gested food), but do not turn the rennet inside out or wash ft, as that would cause a loss of part of the ferment. RInse off any dirt from the outside but not inside), and trim oil any adhering fat. Tfe up the opening in the farge end, apptying the string at the

narrow passage between the third stomach or book and the rennet. In sert in the opening of the long neck af the other end, a small tube of glans or any other material, blow up the reninet as hard as possible. Iike a football, and the with a string under the tube. Where many rennets are handled, it is convenient to have a pefinted tube connected with atr pres sure, to inflate fhem. The long narrow neek contains but Iittle of the ferment, and may be cut off after drying.
Hang the inflated rennets to dry in a draughty ahed, or a warm, dry room, but do not expose them to more heat than that of an ordinary warm room. Never hang rennet in the open, ex. posed to the sun. Where a fan can be uned to create draught, it witl help to dry the rennets quickly, and the process should not take more than a week. They should not be left moist long enough to molit or putrety, and care should be taken that they are care should be taken that they are
not infested with maggots or Insects after being drled and bundled for shipping. that is they should be thoronghly drfed and carefully protected from flies and other fnsects. When a suffiefent number of thoroughly dried rennets have accumulated, cut off the rennets have accumulated, cut off the mecknots th out the air; de up the pack In is toses or lon of 25 or 50 , ani pack in cases or barrels
Four tin vessels, or glaxed carthenware crocks, each of five to 10 -gallon capacfty, should be provided. Cut the rennets into several pleces and place as many in one vessel as will be needed for a day's supply, allowing one good rennet for 2,000 to $2,500 \mathrm{ths}$
of millk. Add about one gallon of pure sterilized water for each rennet, A
few oumees of salt to each rallon of water should also be added. Cover
wallon of the vessel, keep it in a cool place, stir the contents frequently, and once a day give the sontfing rennets a good rubbing. The solution should be ready for use on the third day. By having a number of vessels, a fr sh supply for every day's use will te available. Strain the solution thronth a cheesecloth before using, and add the whole of it to the mill without dilution. No. 4.-Any cheesemaker will soon learn to gauge the proper strength and govern it by the number of rennets used. The containers, strainers, stirrers or other utensils, coming in contact with the solution, should be well washed and sterllized every time a fresh aupply is made.
No. 5.-While the rennet extract cannot be obtained at the present time, equally good results have been achler. ed by cheesemakers during the past season with pepsin. The two best known brands of pepsin on the market at the present is Spongy Pepsin and Curdulae, both of which are manufactured and sold by the Parke Davls Company, Walkerville, whose Ad. appears In this issue.

## Tin for Cheese Vats Scarce

 J. A. Ruddick, Dairy Commissioner,THE large tinned sheets used in the manufacture of cheese vats Why been procured from the have al Kingiom. In the interest of the oly of munitions the axport of all sum material is prohibited, ascept under licanse, and has been for sope time. with the resalt that the stoek of time. Wheets in Canall has become of tinned heets in Canada has become practical y exhausted. The shortage is likely o be rather a serious matter if it cat ot be relieved
Last September the writer, as Dairy Commissioner, brought the matter to the attention of Mr. Jas. McGowan, the misision who on his roturn to the Ol mission, who on his return to the Old Country was to lay the matter before the Ministry of Food, in view of the possibility of interference to some extent with supplies of cheese if some relief were not granted. Mr. Me Gowan has carried out the suggestion. but he writes that he is doubtfal of having any success. I also brought the matter to the attention of Mr. A J. Mills of the British and AHied Mis. slon in the United States, and the Influence of the Canadian Food Controlier has been enilsted. In fact, every known means has been resort ed to in order to secure a supply of these sheets.
The persistent refusal of the Imperial authorities to release this materlal fo an intimation to us that the situation with regard to steel in the United Kingdom is very serlous, and it begins to look as though we may have to do without them. It may be possible to secure sheets of a certain slze in the United States, and I understand that some of the sheet metal firms in this country are endeevoring to arrange for the tinning of large medfum sized sheets in thif country. In any case, it will be adviable to In any case, it will be advinable to
conserve as far as possible the vats and milk cans which would ordinarily and milk cans which would ordinarily be replaced by new ones. Under these
circumstances no apparatus should be circumstances no apparatus should be
dfscarded which can possibly be made thscarded which can possibly be made ane of. Some factories may have pare cheese vats, or there may be milk cans not in use. If no, the facts hould be advertised so that others In need of these things may know where to get them.
I srgpose it would be possible to make a cheese vat out of amall tin plate. In the early days of the indusry the large sheets were not used. All vats had a seam at the corner all the way round, and the bottom was made of comparatively small pleces with seams running lengthwise as wel as crosswise. The manufacturers wil know better than I do if this is feac ible.

## Western Opinion

Athe close of the Weaters On Convention at Association cently, Mr. Lo A. Gilson, Ditratford ro misiloner for Manitobon, Daity Com words to say. "You are on a few road in starting to grade cream right butter, so just keep at lit," remarked Mr, Gibson. "Grading has domarked Chan anything else for dairying in Manitoha. We now export 100 ing loads of cream and butfer 100 car years ago we had a poor reputation
for our butter. Now for our butter. Now It is the best. Grading did it"
"Don't blame the farmer it he doesn't give you the best cream," said Mys Oibsote later, "unless you sive bim some fricentive to produce the good article. This meana paying for cream by grade,". After emphasizing the importance of pasteurization in fmproving the keeping qualities of butter, Mr. Glbson gave his opinion on the cream buying statton. "Wo had about 100 of these stations three years ago," said he. "They were the

| Quebec Dairymen Satisfied $A^{T}$ the annual convention of the Quebece Oairymen's Ausocta. tion the following resolution was moved by A. Trudel, and sec. onded by $£$, Cocrbeatu: <br> Province of Quebec, thatymen of the st Hyacinthe, wish to express our gratitude to the cheese commis. able way they havike hand hod the 1917 chiesee crop of Canada. Under mont trying and difficult conditiongt and tmpartual ween done in que are, there. Fore, perfectity satioflod with prices pald turing the past geasion, and through the season of will. We:are satisfied to truse them to negotliate future prices, bolleving thoy will do their bent in the interest of all dairymen. Carried unanimeusly. |
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curse of the creamery business in
Manitoba. We imposed Manitoba. We imposed regulations of them and instituted a rigid syatem of inspectlon and the number has ow dropped to 32, "
Mr. Alex. Wekserner present wai neeted McKay, at one time canScheol at Gueiph and of the Datry dairy butathese iph and now running a Mr. McKay: "I was surprised to hear that good, old, conservative 10 hear has introduced the cream buying sta. tion, one of the worst ponsibie things. for the dairy buininens, The hent way to ellminate the buying station to to establish cream grading. It will cost
iwo cents a pound fot to mary two cents a pound fat to carry creain to the buying station, most of it will be second grade cream and that means two cents less still. Aud Automatleally the majority of buying stations then go out of bustoess."

## Recognizing the Farmers

Premier Hearat has invited Mr. R. H. Halbert, president of the Untted Farmers of Ontario, to accept a poaltion on the provincial committee that this year will largely direct the campalgn in Ontario for facereased pro. paction.
In conneetion with the drafting of ment is establishing three GovernAbsence tribunals, compee Leave of tary officials, for eastern, centrat mint weatern Ontarlo respectively, who and have power to grant leave of absance have power to grant leave of absence Whose appeals have been refused men the Miltary harvice Aeen refused by The Military Sed Fervice Act tribunala. been requested by Hon Outario have Dominion Mintat Hon. T. A. Crerar, surgest the names of Agriculture, to surgest the names of representative virmers capable of acting with and adhive these military tribunals, and B.S.A., of Malden, Mans accepted the position on the central tribunal it is expected that other farmers who have expected that other farmers who have
been recommended for this work will

## MERTON LODGE STOCK FARM

## 30

HEAD


30 HEAD

Will Sell By Public AuctionMarch 5,

Entire Herd of Registered Holstein-Friesian Cattle


 daughters and srand-daughters of
offeially teated or by tested dams
will boe alld farm stock sithout reserve.
W. W. GEORGE, mikereall
R.R. No. 2, MOSSLEY, ONT.

READY FOR SERVICE

 price for quick sale, shes.
J. W. Johnstone, R.R. Mャ. 2 Forest View Stock Farm, Hawkesbary, Ont.

The Surest Way $\begin{aligned} & \text { To sell your surplus. stock } \\ & \text { through the live fick column of }\end{aligned}$ Farm and Dairy. The cont is little and the results certain. Send in your ad.

## The Quaker's Stock Farm

## ENTIRE DISPERSION SALE OF

## 50--Pure-Bred Holstein-Friesian Cattle--50

## FEMALES

40 or more, including syaturen sixima many veit Bella A Ponoh, butter Roxie Fuyne, 1 yra., butter. Marena Bchuiling Sth, I yra.
 Thm (tuese

 tested and untented, and nearl
whspe for tenting this spring.

ONE OF

## OXFORD S

 Finest Herds A SaleWorth While
HEIFERS

Splendid Foundation Stock

## BULLS

The soung hard
 Dam mint rax mich Dam wian rane Histoct dy mintik


Btue Ribbon Bull at Guelph, 1916. Prue wimere at Tosomoto and comeon.
Several young, bulls, jeady for aervice,
all from R of all from R.OM, dami, Onn prige-win-
ner at Toronto, 1917 .

DR. RUDD'S SALE STABLE, WOODSTOCK Wednesday, March 6th, 1918, at 1 o'clock Convenient Train Seri:e - Good Hotel Aceommodation Terms: Cash or 6 munths credit with inteest
G. F. MAHON, PROPRIETOR, WOODSTOCK, ONTARIO write for catalogue

Moore \& Dean, Auctioneers

## A Rare Bargain

Fourcherece Regatered
Holstein Cown
due to freshen in March to one of the best bred bulls In Canada. All are in good condition. Treats are right and all young. They are splendid individuals, and Would make a great foundation for some one Just starting in pure-breds. If you are looking for sonie-
thing good in Holsteins don't fafl to write ul at once.
Price $\$ 750.00$ for the four delivered any place in old Ontarlo or Quebec,
Also a richly bred young
bull, 7 months old whone bull, 7 months old, whose
sire's dam gave 101 los. milk per day, and whose dam gave 90 lbs. per day. Price $\$ 125$ delivered.
W. C. Stevens, Philipaville, Ont Brookdale Stock Farm


AYRSHIRE CATTLE are heavy milk pro. ducers, rich in butter fat and very prolific. Write for booklet, W. F. STEPHEN, Secretary Canadian
Ayrahire Breeders Association
Box 508, Hunt Quebec.

If You dont flwo ir, waite us and Dairy win renders of Farm arens of mithita securo the ent or thube hold cquipment, on firm At any tome | formation |
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| un frouly. |

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ADVERTISINC DEPT
FARM A DAIRY PETERBORO, ONT,




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the passing of a gheat sire.
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 Fin ayaton wem dropped yfroh 20, 1304, toan. ochiltrem scotiand imported in
 Grimy Bry Mawr, Pat Ho was sired by

 tors in Adyances Rergitrit with autoni
 AYRSHIRE PRIZE OUP WINNERS, 1917


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 cid Melmag Canary Ben, ountor twoaryar-


BACK MIS MERO WITH R.O.P. $\mathrm{D}^{\mathrm{R}}$ bur, whiverowe, ot Hawkid- has recenty boen ad-



 Ind han, four-year-oid cothila Murke
 sty Jutior sira bish arac, straight fol

## LANINGDALE STOCK FARM

## holsteins

Offers for Sale HoLSTEINS
 Roatrot pionilinina

## ABSOLUTE DISPERSION SALE

## SUMMIT VIEW FARM

PURE BRED HOLSTEIN FRIESIAN CATTLE
On Wednesday, February 27th, 1918
Salo to commenco at
Twenty-Seven Head
and and


Ure carringer mina phat tonered at the atio one now two-seated top rubber.
Henry Knell, K. Cor catalogue, Aadreen
Remember the ain cher, Oat. H. B. Duering, Auctioneer

## 35 head DISPERSION SALE 35 head

HOLSTEINS 0 waed by J. K. Moore, Peterboro FEBRUARY 20, 1918, at 1 O'clock, P. M.







## J. K. MOORE, R. R. No. 2, PETERBORO, ONT

## LLENROC STOCK FARM

A few well-bred, youn3 Holstein Bulls for sale. Also a Belgian Stallion, weight about a ton.

Address
W. C. HOUCK - R.R. 1, Chippawa, Ont.

## OFFERING No. 1

Premier Keyes Korndyke 33895








Come, Write or Phone, Brantford No, 1102, AT ONCE. o Is a Bargain at a Bargain Price.
OAK PARK STOCK FARM

| Young Ayrshire Sires and Females <br> Evie Stock Farm, - Chesterville, Ontario |
| :---: |

[^1]
## R. O. P. CHAMPIONS

tat docording to the R O. P. roports a Jorsey sow produced more butter
for nulo for ale Twenty Cows, frish or springing, alno Young bred. Wo havo now
of these are elosely related to of these are elosely related to the champlon butter cow mentioned above
B. H. BULL A SON, e. H. BULL a son,
"AVONDALE FARM" BULLS
Young bulls sined by WOODCREST SIR CLVDE, whose dam has 33.06 lbs . butter, and over $24,000 \mathrm{tbs}$. milk to a year. He is by the same sire as our bull, Prince Hengerveld Pietje, with seven daughters having over 30 lbe

1. One 10 -months-old from a $28-\mathrm{lb}$. cow, the dam of our wellknowe Lady Waldort Pletje.
2. From a $2416-\mathrm{lb}$. two-year-old, daughter of a twice 38 db . cow.
3. From a $19.8 \mathrm{t}-\mathrm{lb}$. junior twoyear-old

These are gotng to be sold at a bargain. We have several young sons by, our fine son of May echo sylvia, one of these in 10 mot ths old.

We are offering by private sale a few good yearlings, and twoH. LYNN,

Avondale Farm,
Brockville, Ont.

## HIGHLAND LAKE FARMS

Herd sire, AVONDALE PONTIAC ECHO (under lense), a son of MAY ECHO SYLViA, the merld's rocord cow. Onty ane other $i 1-\mathrm{lb}$. buil in Candian champione young buils for sale, whose two neareat dams (both Canadian champions) average as hich as 35.62 Hs . butter in seven days; another Whose two nearest dams are both $100-\mathrm{lb}$. cowe, and one ready for mervice Send tor our "A 18,000-1b. two-year-ald dam.
look of Bulls", A fow fomales for sale.
Satisfaction guaranteed.
R. W. E. Burnaby

Farnat Stop 3s
Jefferson, Ont.

## LAKEVIEW STOCK FARM

 offors for salo several daughters, Erandanuehters and arrandeons from calving: LAKIVVIWW DUYTCAMAND ARYM Canadan Champlon for 3 oousecutive years in the 30 -day
after colving: QUEREN



 ffered for sile. Canada wirt such hight producting Holsteins have been Termant wart qo wrure, but take the frat train for Bronte, Ont Major E, F. Oaler, Prop.

BRONTE, Ont.
T. A. Dewson, Mgr

## HEAD $_{25}$ AUCTION SALE HEAD Registered Holsteins thursday feb. 21st, at hespeler

Females:-From high record sires, descended trom officially tested stock, some from tested dams with records up to 25 . Hos. butter in 9
days, finchiding daughters of Pontiac Segis Avondale, son of King Pentlac Artis Canada. His 3 near dams average 31.10 lbs. His pedigree contains the sires or grandsires of 10 average 41.10 lbs. His pedigree
cows, also dauchters or concains the sires or grandsires of 1040 lb . cows, also daughters or
grand-daughters of "Pontiac Wayne Korndyke," "Prince Angrie Mrand-iaughters of "Fontiac Wayne Korndyke,", "Prince Aaggie
Mechthde" "Korndyke Manor DeKol," "Inka Sylvia Beeta Poseb," and others equally well bred.

Four Males:-Including herd sire "Pontise wayne Korndyke," brother to Brook-bank Butter Baron, 34 R.O.M. dauehters, Includling P. Pontlae Lans," 4418; "K. P. Diona Pletertje" 40.15; "Het Leo Pletertfe," 30.28 , world's champion 2 -yt old.
An opportunlty to got stock froun some of the bent record atrains in America. 1 am situated one-half mille from statlons. Rallway con-
nections, C.P.R. A.TR Ramition and Dmiter nections, C.P.R, G.T.R. Hamilton and Brantford. Lake Erie and North. way, Electrle al Galt with Galt, Preston and Heapeler Electric Rall. will be forwirded promptly by froquest Galt and Kitehener. Catalozues dr prompay by request.
(A calf whose six tested dams average 25.36 lbs , will be sold. Proceeds

## JAMES McDONALD, <br> Guelph, Auctioneer <br> WM. A. RIFE, Prop. <br> Hespeler, Ont.

Deal with Farm and Dairy Advertisers


 Voesg fow of the females in the herd at present have been teted, but those that milit and over 600 ibs , butter ROM. A heffern Doe of my bent cows, Jewe
Bello Dewdree, has milked over 90 wis Belle Dowdras, hary milked over 90 bs .
a day with ordinary aire, and her daugh(er) Jowel Boille bewdrap ind, daygh four

 orable conditions, under very untavtwo weoks bolore treatening to com

## HOLSTHIN-PRIESIAN MEWS



> BRANT BREEDERS MEET.

E Drror, Fann and Dalry-The Brant of Auriualture Ometing in the Department ar ferioultare Omce, Brant.ond hanuary
arthe were to of the breeders of the
 for the murosent io elect their offloere







 A WONDERFUL COW
E virone Farm and Daty; In am ad Eian and by wire that tho Holstein- Frie-
ais.
 32.46 box fat in seren consecultive dive




 productions emocecang 23 man fat in seven the equivalent butter claimed for Tuity
Alosita would amour: to to.86 fir Tily
 porlocts, exoept the firme of 2inf lactation the tive eansecutive testo , ho is creaited
vith in production of $13,361,3$ ibs. milk






## OAK PARK NOTES

$\|^{\mathrm{N} \text { tho-courae of a mhort call at Oak Park }}$ Bock Farm, our representative zilean-
"Dutch" the nenior champton for two
 thinge interenting once more at the bis


 orer $301 / \mathrm{hay}$, when 16 youra old on hocerd of Mre nie. ho If a brother to the great May Echo Sylvia.
bred to Anumber of the cows have been bull, who went to Alberta. Some sint buintho went to Abertai some sut:


## Coularcroft Ayrshires

yor suLe-Ball oelves from one
to iz monthe oid, all bred to color to 17 monian type, and from tarren to color
 Ren or roung cows ot dif.
 such an an
eomne able.
sona

JOHN HAMILTON \& SON
R.R. NO. 2, BT. EUSTACHE, Que.

## FOR SALE

The Highly Bred Holstein Bull

SYLVIUS sir pontlac (mostly white) Born January, 1915.
Sive-PONTIAC HERMES
Dan-LADY SYLVIA OF
Bayside.
aree.
R. a. MACNAB,
R. R. No. 2, Allenferd, Ont.

## SALE DATES CLAIMED

PETERBORO COUNTY.
February ${ }^{\text {20th- }}$ K. K Moore
Fumi stock
March 2eth-G. A Mrethen, No:-
Wood. Diaperabon male of Holetelinis
WATERLOO COUNTY.
February ${ }^{21210 t-W m}$. A. Rife,
 Bridsepary, Onterio. - biepernolion

BRANT COUNTY
 No. 1 , Haterhey. Ont-Disuperaton

PERTH COUNTY,
Maroh isth-Perth Distriet Hol-
OXFORD COUNT
March 6 th-a. F, Mahon, WoodMarch ${ }^{12 \text { th - }-\mathrm{D} . \mathrm{A}} \mathrm{A}$. Boyle, Wood-
March isth-Hy
 arade Holinteins:
March 20th-The Oxford District
Haistein Holitein Breedere Club W, ET Ontario.
 VORK COUNTY.
March Mh - Bherriek Bros Sole.

NORFOLK COUNTY.
 ual Chub Sale,
NORTHUMBERLAND COUNTY. R. Narch ${ }^{7 \text { th }}$, Moitrum Hoelkina, R mion sale of Ileghtered irotirteln

| -BULLS FOR SALE- <br> We have eatielled aome very oritical fudges and we esn matioh critical julges and we ean matiar) you. Bull rendy for nervice, whone tam and thre't timinema, ive ath fon $\ln 7$ daya at $\frac{1}{2}$ years 1 month his 2 franddams sverage 28.14 lbe nilcelr marked. One 4 monthn ol drom a 27 -lb. covy with s recory daushtera lip to 29 bas al f-year- old. Alpo a young beauty from 18.43-jb. 2-yenar-old daumbiter of 2 Ib, cow, Born Dee, Th, 1917, Another good one born in December from a $21-16$, cove. Thene ary priceat to sell. <br> Phone or Write. <br> ค. R. No. W, PARKINSON <br> ค. R. No. 5 ~ Hagersvilie, Ont |
| :---: |

40 LB. BLOOD FOR OXFORD COUNTY
I have securod at two-mponth" leaee of May Bytria Pontiae Cornuopplu. Herd sire, owned by the thtonville Byndicate
 HE NOW STANOS FOR BERVICE.
Wrile tor janticulara.
M. H. HALEY

SPRINQFORD, ONT


## TRAVEL FOR

 BUSINESSbut make it a p easure!
men
aim

The Canàdian Northern
 and Western Canain. Fith nections for all principal pointa in Canada and United Statem The Road of a Thousand Wonders and Opportunities
 CNif. triket agent, or Write Gen-
srat Prasenger Dept, Toronto,
Montreal or Winniger

## Managing Foreman Wanted

For Dairy Stock Farm to handia then and hrring Abie both implements and machinary,
and able to keep simple fary,
 required Give fall partleuland
of seff and fainfly. experience.
ete.
A.C. Hardy, Brockville, Ont.

## For Sale

Twa rea. Percheron Mares rising 1 and 3 years old. For further partieulars apply to MR. R. E. IVY, Clarine P.O., Out

Ior MLIK, BUTTER, CHE SE, VEAL

 st. George A. CLEMONS, See,

Farm and Dairy is in an excel. lent position to shampion the cause of the farmer in Canada, becaute it ie owned and con-
trolled exclusively by farmers.
 Wayne, 607.3 bution: Lalleviow Hengerveid


 butter, 686 Hbs Pletnrtje Dokot, mik, nisi ibs io lew Fila Aver 3 ,00e the R.O.i.: Vilia
months, 343.7 Abekerk, . 3.7 lbs milk, and 15.63 year butof thla here a few of the foundation cowa
tuberculin of head, all of which are tuberculin tented. This herd won the
lion's whare of firats at the Cal tonal lase of firats at the Canadian Na-
loear, Winninf no Cand enampiont year, winning no tenadhan Na- than four
seven bull calves. Bailey is offering
年 saven bult calves, at from show cows.
Three sfaters of their sirem show
of 116 , of 116 Na. millk per day, whave average seven days.
QOOD SEVEN DAV WORK AT THE O'REILLY STOCK FARM,
$M \begin{aligned} & \text { R. Joseph orteilly, of whome mont of } \\ & \text { the breeders in } \\ & \text { tanmds fonow, for }\end{aligned}$ of Holsteins, has records of his fine hurd test While Mr recently in the dolng some semen days.
the anaual Wr Relly appreevit.
 Jue anme tine the damand to-diy yet at
dolstelins in also to know what do in the short run rnow what they can
nacertain the abillt. direction, Mre ability of his herd in this
under the thellyy put several of then under the that in Decembereral of them
have and they these is a record of 23.48 lbs , for Among animals, and 18 its for one of the mature 2-year-old. The
ane outatanding res a funior May, R one made by Burkje Hengerveld
Mot Fio of 79.68 lbs, butter frem Bor, mith in inoven dnys, mutter from 569,4
three-year-old form particutarly fine one, and, of course, has She is a daughter of Burk she has done.
Canada's first 20,009 Fengervela,
lb. four-yenrelt Mar sire in a threoguauter fousther-old.
May Echo Sylvia. These record ginning are opretty good indication that minintain thair repurtation not ability
R.O.P. but in R.O.M. as wall

THE COMING BELLEVILLE SALE, B Honbosers who intend purchasing
Holsteins wil do well to bear in mind the annual Consirnment sale of Hol-
steina heid by the Bellevils Breederi' Chay sale, Bellevilia District
ville during first wien in BelleFurther no

## EPWORTH FARM HERD

 ESTABLISHEDwhatever; we bave nover had a case of promature birth from any cause
visit
vrom a veterinarian. scours: we have never had
this is from a veterinarian. So when in the market, remember that SAFE PLACE TO BUY HOLSTEINS.
F. H. McCULLOUCH \& SON

NAVAN, ONTARIO

## REGISTERED HOLSTEIN COWS <br>  Trame will be met at millbank C.PR and Miliverton, OTP hon, C.T.R. For eata.

MILVERTON, ONT.


 I : CHUTE A BLONDEAU, ONT

## HOLSTEINS


 R. M. Holtay


Peter 8. arbogast ... r. r. no. $z$ mitchell, ontario


## ANOTHER ONE SOLD

## WALKER.

DAm-an 1814 tb . Ir. 2-year-old grand-daughter of PONTIAC
A. A. FAREWELL

OSHAWA, ONTARIO
When Writing Mention Farm and Dairy
GREAT DISPERSION SALE
OF
30lb. Blood
30 HEAD HOLSTEINS
G. A. Connection T.H.B.-Scotlan L.E.d.N.-Oakland
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C. CHAMBERS \& SON Hatchley P. O., Ont.

Col. Willowghby Almas, Auctionee N. P. Sager
W. S. McCor



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[^1]:    A.AKESIDE AYRSHIRES
    
    
    
     $\qquad$

