## PAGES

MISSING

## 

## Engines

Separators， Baggers，Blowers， Stackers，Chaffers， Self－feeders， Elevałors，etc．，etc．
Clover Hullers， with or without §elf－ feeders and Blowers． Level Tread and Sweep Powers． Plowing Engine Tenders．
Portable Sawmills and Engines．
Road－making Machinery


## 

SAWYER \＆MASSEY，Hamilton，Canada
 BRANCHES

WININIPEG
CAIGARY

Wind－breaks Wind－breaks Wind－breaks HEDGES HEDGES HEDGES for the million．
Cottonwood，Elm，Ash，Maple，Buckthorn，Caragana，etc． 3 cents by the $\mathbf{1 0 0}$.
Do you want 1000 plants free $? \begin{gathered}\text { of course yon do．Write and ask ug } \\ \text { the tell } \\ \text { tou how how to go about getting }\end{gathered}$ white for oatalogue．
WINNIPEG HEDGE \＆WIRE FENCE CO．，Limited．
GUGH J．MACDONALD．K．Co，
dent．m Fictild Manager．

## Portable Engines







BURRIDGE \＆COOPER，winNiped．


should keep his RECEIPTS，LETTERS and DOCUMENTS in order．

## 드ㅍㅡㅡㅜ


will do it． 75
OリユMロ포․


RINHRRPOAA \＆RICHOD 213 McDermot avenue， IIUIMIIUUUI O DOIUI，WINNIPEG．

## SHIPPERS OF CREAM．

Did you realize 19 cents per pound for the
butter you made from your cream during last fifteen days in May．If not，drop a line to
Crescent Creamery Co．，Winnipeg
the MANITOBA FIRE ASSURANCE CO．
 H．H．BECK，Managing Director．
All olaseses of insuranoe writton．A Agonts wanted in anl urrepresented districta


## PAROI D ROOFING

"IT LASTS."

A roofing material that is made good all the way through, which can be laid in any kind of weather or climate, on any kind of roof.

A post card with your name and address will bring sample and booklet.

Threshers' Supply Company, Limited, 120 LOMBARD ST., WINNIPEG


In the valley of the fertile Saskatchewan, and Las Mountain Valley-the garden of the West. Improved and unimproved farms on the Pheasant Forks, Arcola Prince Albert, Soo, and C. N. R. railway extensions.

Write for maps and particulars.
STEMSHORN \& BLACKSTOCK, P.O. BOX 21, REGINA, ASSA.

[^0]
## MASSEY-HARRIS CO., Limited



## Binder

That has won a unique place for

STRENGTH, LIGHTNESS, SIMPLICITY

Unsurpassed for Cutting, Elevating, Binding.

## Mowers

Sizes
41 -2 feet to 7 feet
LIGHT OF DRAFT,
SMOOTH RUNNING, CLEAN CUTTING.


## Hay Rakes

Sharpes, 8 and 10 feet. Massey-Harris, all steel, 91-2 to 12 feet.

IMPROVED WORKING QUALITIES.

BEST OF MATERLAL
branches: WINNIPEG, REGINA, Calgary,

In answering any advertisement on this page, kinaily mention the FARMER'S ADVOCATE.

THE FARMERS ADVOCATE

FOR SALE in british columbia Sheep Ranch
 Owner hold $1,6 \pi 7$ acres under Crown Grant. and otheres under
have been pre.empted. portions Flook of ong shecp having the
run of abooit half the Island Two dwelling houses and other
suitable buiroings. Considerable acreage under cul
tivation. PRICE \$25,000
B. C. Land \& Investment Agency, VICTORIA, ${ }^{\text {I }}$.


CASHFOR YOUR FABM, BUSINESS, HOME,
 NORTHWESTERN BUSINESS AGENCY, 312 P Bank of Comnerce Bidg MINNEAPOLIS, miNw. OILS.


 expenge and we will return pay or or ave
portion. our watalogue on application.
WIndsor Supply Co WIndsor Supply Coo., Windsor, Ont

The CENTRAL CANADA
INSURANCE CO
brandon, manitoba.
Fire, Hall \& Live Stock Insurance.
BRITISH COLUMBIA
CHILLIWACK FARMS

JOSEPH SCOTT. CHIL cuntry.
 THE STEAMSHIP LIMITED zour in servicr Port Arthur and Winnipeg
Dalli berwwen $\left.\begin{array}{l}\text { Leave Winnipeg - } \quad 16.50 \mathrm{k} \\ \text { Arrive Port Arthur - } 8.30 \mathrm{k}\end{array}\right\}$ DAILY $\left\{\begin{array}{l}\text { Leave Port Arthur } \\ \text { Arrive Winnipeg }\end{array}\right.$ THROUGH FIRST-CLASS SLEEPERS. DININQ CAR SERVICE FIRST AND SECOND CLASS COACHES, VESTIBULED THROUGGH, THE STEAMSHIP LIMITEDE CONDESIGN-MODERN-COMFORTABLE

The Northern Navigation Connects at Port Arthur with steamers of
Pacific S. S. Line to and from Owen Sound. The Canadian Pacific Aan Rail Route, and all Steamboat Lines doing business through Pt. Arthur.
through one-way and round-trip tourist tickets Via Lake and Rail, and All-Rail Routes between points in EASTERN CAN-
ADA and MANITOBA and the CANADIAN WEST on sale with all ticket agents.
R. L. DALY,
City Ticket Agent. $\begin{array}{ccc}\text { City Ticket Agent. } & \text { WM. PHILLIPS, } & \text { Ren' Fastern Agent, }\end{array} \begin{gathered}\text { R. H. BELL, } \\ \text { Trav. Pass. Agent, }\end{gathered}$ $52 \begin{aligned} & \text { King Sts. East, } \\ & \text { TORONTO, }\end{aligned}$ $\underset{\text { R. H. BELL }}{\text { R. Pass. }}$ GEO. H. SHAW, traffio manager

Every Housekeeper Should Keep Pure Goods.

## COWAN'S

Perfection COCOA, Royal Navy CHOCOLATE, CAKE ICINGS, CREAM BARS, etc.
all our goods are absolutely pure
THE COWAN CO., Limited, Toronto.


Makers of Fancy Butter
 J.Y. GRIFFIN \& CO., WINNIPEG

WOULD HAVE TO STOP HER WORK AND SIT DOWN.


HOW MANY WOMEN HAVE TO DO THIS FROM DAY TO DAY? MILBURNS HEART AND NERVE PILLS
area blesing to women in this condition. The Ouro Norvousnoess, Sleeplessness, Paltitation Thoy
the Heart, Faint and
 mending them Talays: Salisbury, N.B., In recomWas very badly rundown, was troubled greatily With palpitation or the heart and would get so
dizzy I would have to leave my work and
down down. I seemed to be getting worse all the
time. until a frien advised mo to tryMMI
BURNS HEART AND NERVE PILLS. can trathfully say that they do all you claim
for them, and
run-down women. Price 50. per box, or boxes for $\% 1.25$; all doal.
arr, or The Milburn Co., Limited, Toronto, Ont.

## CHICAGO

 GRFAT WESTERN *wer Ramar"The Risbt Road Chicago, St.Paul, Minneapolis,
Des Moines,St.Joseph Kansas City,
Council Bluffs and Omaha.
EQUIPMENT RIGHT, 5) TIMERIGHT. service right it's All RIGht.

## BRITISH COLUMBIA TABMM

## 1300-ACRE FARM FOR SALE

Half an hour to centre from bis
smelter town of $G$ Grand Forks, afford Smelter town of Grand Forks, afford
ing good market.
Splendid
fruit mixed farming and grazing land, river boundary, two water records, lapge
portion under cultivation now, Whole portion under cultivation now. Whole
or part on reasonable terms. Posses
sion or part on reasonable
sion at once. $\Lambda$ pply

John Dean,
Box 82 , Rossland, B. C

## 工凡 IN ID




PENMANSHIP


ADVERTISE IN THE ADVOCATE,

## Royal Manila Binder Twine is the Best manufactured by

CANADIAN CORDAGE \& MANuFACTURING co.



## * Agriculture, Stock, Dairy, poultry, win horticulture, Veterinary, home circle.*

## Editorial.

The Department of Marine and Fisheries.
$\qquad$


The department referred to is not one Caradian Civil Service concerns himself much about, as he does not think its administration affects him, in the holding of idea he is greatly mistaken
This department (marine and fisheries) is largely responsible for the safe and cheap carrying of farm produce to Great Britain by the preserva-
tion and effective use of our great waterway asset, tion and effective use of our great waterway asset, the St. Lawrence, and is also responsible for the industry is the one of most interest to the farmors industry is the one of most interest to the farmers,
owing to the large consumption of the canned owing to the large consumple canned
By the record of boat disasters on the must be adjudged one of the most neglected branches of the public service, and has done more passenger service between Canada and Great Brit ain than any other one thing. Not only so but it is also largely responsible for the losses which have rendered the St. Lawrence route a byword among mariners, the detestation of underwriters,
and the nightmare of shipowners. The lighting and buoying of the route has been of such an inferior kind as to call forth the maledictions of governments of the last twenty years have perrill tage of the whole route, with the result that probably the poorest pilctage service is here rendered to lie found in any part of the Buitish Dominions. Years ago, our output of grain and cattle and the product of the mine, mill and
factory were such that this condition made little difference to our trade. To-day, however, the ex istence of such a monopoly is a severe menace to
our commerce, and its result a heavy annual tax our commerce, and its result a heavy annual tax
upon the producer, the farmer. Few captains on owne:s care to speak out their minds on these
questions, for if they did their boats would be marked, and as this clique of pilots control thing. they can subject the owners or calitains to a tot able that more accidents to shipping upon this great wateryway have not occurred. A far greater
number have taken place than would have ocnumber have taken place than would have oc something, say, similar to Trinity House, where qualify under. The improvement of the pilotage qualify under. The improvement of the St. Lawrence is something that need not looked for from any government until the farmes s plai ly on the subject. All produce purchased from the farmer is charged with the heary of the dungers of the route, which are not lessened as they should be by this branch of the public piloting, of lighting or charting, increases the arm produce shipped foom Canada by the water route out of Montreal. This is a subject that will bear and pay for investigation the farm-
ers' organizations, because whateren was be the individual or party opfinion regarding the building and equipping of additional trans-continemtal rail-
ed towards cheaply and safely getting that pro- how to produce the largest possible crops, how duce from Canada's great inland port to the mar- to raise the best stock, the largest milk-producing kets across the seas. cows, and how to secure the maximum returns

The Discontented Farmer. Every one is familiar with the farmer who is his failures or unprogressive methods by excusing ment that he was not "cut out " for a farmer. That there are men living on farms who are not naturally qualified to make good farmers cannot be denied, but that lack of natural endowments should be so generally offered as an apology for unprogressiveress, due largely to lack of enthus iasm and a knowledge of the principles of farming, is scarcely excusable. The man who is com pelled by force of circumstances to continue farm ang, or any other vocation, against his natura inclinations, or who is physically or mentally unfor the work of managing a farm, is deserving who do not make the success they shoul of business, simply becuse they will not aveit the selves of their opportunities, or are concerned with almost every other affair in the country and out of it, to the exclusion of their first dutios. Fxa amples are numerous of men who consider themselves capable of advising the Government or the judiciary what should te done, or who are constantly concerned about the roads and ditches in every quarter of their township, while at the same time their own farms may be soaked with surplus water, overiun with weeds, or so mismanaged that their fertility is practically exhausted. Others, again, imagine themselves victims of circumstances, that they have not been privileged to tollow one of the so-called " learned professions, or which they may have a sprinkling of lnowl edge, as if in the profession of agriculture there were not scope for the exercise of all professiona and business qualifications. Few farm, conditions are more unsatisfactory than that of struggling on from jear to year, hoping that some economic arheaval may land one high and dry on the road to success by some other route than that of the apprication of brain and brawn to the problems of having a furm left to the considered fortunate in a therefore, seem to have idy hitle outray, and those of the majority and though care beyon slustrio fait to mate a ghe cars ine ber ness. more self-reliance and faith in their own ability, and more enthusiasm in the pursuit of their their neighbors and make substantial and steady progress. There is denerally a remedy for their unfor tunate condition within the reach of those who are not progressing. The first thing to be done is to get into a proper frame of mind. One must recognive his privileges and possibilities, and the potentilalities of his farm. He should spend less time over newspapers, however good they may be, and devote more time to the reading of the literature, and the study of the conditions existing on his own farm. He must put enthusiasm ints his work, and display a confidence in himself, his farm and the future. And to make this easier he must five well. Many farmers are unsuccess to the exercise of false economy in the matter of living. Then, the farmer who is making for suc cees should have an object in view, and dougedl
from every enterprise in which he engages. We confidence in the great in our business, and mor confidence in the great agricultural resources of our country. Canada, as a whole, has neve
known a complete crop failure, and seldom has any single district experienced even partial failure of all its staples. Success in farming as in other lines, is largely due to the determination to suc-

The Eastern Dealer and the Farmer.
The vigorous fight put up by eastern grainast of Winnipeg , ilaces upon record the undoubted necessity of Western grain-producers standing shoulder to shoulder in one organization for the protection of their rights. It is not an example of a rare occurrence, but one which may be expected to confront the grain-growing interests of this country at any time. The eastern dealers have been obtaining an immense revenue through mixing and grading Manitobs wheat. Many of hem are men of great influence in the country and, incidentally, with the political parties. They are, generally speaking, men of considerable money and are willing to spend it when they undertake to put up a fight in behalf of their interests, hence a good cause and a solid opposition is required to oppose them effectively. Had it not been that there is such a strong organization of farmers as he Crath-growers Xssociation in Manitoba and the fer.ilolies, whose ofilion of grading and mixgh grain east of fort Wiliam is too well known ime repeaten, these eastern manipuators this withoight have carried their point at Ottawa past dificulty, as they have at times in the In summing (II) the details of the struggle beore the covernment at Ottawa for and against significant to notice that several deputations from loards of Trade and dealers in grain were there (0) argue in it favor, but there was not a solitary indicual prsent to represent the Grain-growers ern M. P's, who can be relied upon to fight for Western interests, but directly representing the the Association may was one. We believe, i cipht, that was one. Not, perhaps, that he might have heen ahbe to bring forward any new argudeanise of the splendid elfect it would undoubtedly have had upon the powers that rale. To know may holp one in arriving at a derision, but if that ather wan lie prsent to state his opinion, it at the ight time. So it is with the Grain-
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$


IHE ${ }^{-1}$ ARIMER'S ADVOCATE $\begin{gathered}\text { town was offering } 12 \frac{1}{2} c \text { c. cash. The merchant } \\ \text { margin (it cannot proply }\end{gathered}$ and Home Magazine. rHE LEADING AGRICULTURAL JOURNAL in manttoba

THE William WELD Comple by

##  <br> Branch Office: Calgary, Alberta Eastern Office: London (Encland) Ofrice : London, W. C., England.

THE FARMER'S
(52 issues per year $\qquad$
It is impartial and independent of all cliques or parties, handsomely

 ADVERTIIING RATES. - Single insertion
agate. Contract rates furnished on an application
THE ADVOCATE
THE ADVOCATE is sent to subscribers until an explicit order is
received for its discontinuance. All payments of arrearages must
be made as required by law.
be made as required by law.
THE LAW IS, that all subscribers to newspapers are held respon.
sibe until all areand
discontinued dibsontinued.
REMITTANC
REMITANCES should be made direct to this office, either by
Money Order or Registered Letter, which will be at our risk.
When made otherwise we will not be wesion wibl THE DATE ON Y
subscription is paid.
$\qquad$
side of the paper only.
CHANGE OF ADDRE
CHANGE OF ADDRESS. - Subscribers when ordering a change
of address should give the old as well as the euw P.
A couple of weeks necessarily elapse before ne
 date of the eirst copy ree


Methods of Cultivation, are each and all welcome. Contribrovions
sentus must not te furnished other papers untial ater the thave
receipt of pont postage.
receipt of postage.
LL COMMUNICA
ALL COMMUNICATIONS in reference to any matter connected
with this paper should be addressed as below, and not to any
individual connected with the paper.
Address-THE FARMER'S ADVOCATE,
$\qquad$
The Business Outlook
way everyone explains the outlook for a goo year. The manufacturer, the wholesaler, the re keep their weather eye upon the country tailors, al son. A light crop would mean a light year's business to all. When the farmer has no money to spend, line of the various avocations in which men the engaged, a prosperous time comes when the tiller of the soil is rewarded by dame nature for his intelligent efiorts. How eagerly the railway, Proup and read by business men in the towns and cities. Even the real estate men lnow that the s and full elevators
There is usually uncertainty in predicting the trobable yield of grain so early in the season as that disaster, such as some southern publications ould have their readers believe, is not in sight for this year. In fact, should the weather be so conducive of rapid growth the first half of July
as it has been for the past few weels, Western Canada will produce such a crop as was never belore heard of in the wheat-growing belts of the American continent. The outlook, therefore, for
a good year for farmers and business men, and gratifying, and should the " bumper crop", whict is expected naterialize, Canada's West will at-

## Watch the Markets.

> notice the loss to farmers by not studying the market quotations more closely. The market a dozen, and at the price in trade to was $16 \frac{1}{2}$ c. a town of some size not over two hundred miles doing a small was only 10 c . a dozen. A man
being too nearly the whole thing) was exorbitant yet such rake-offs are only possible when the ma produce put on the mapers ind tion. With the jobbers fiering 161 c for ears now, it will be interesting. 10 notice the mark changes in hen fruit between now and next spring

## An English Agricultural College

## Reading Conege and British Dairy Institute-Excellen

 (Special correspondence to the " Farmer's Advocate," On my way to London, I stopped off at ReadingBerkshire County, to inspect the Agricultural Depart ment of the University College located there. It wa major portion of instruction at Ontario's received the lent institution, who has also spent six years as a
student and instructor in two of the best agricultural student and instructor in two of the best agricultural
colleges in the United States, nothing could be more interesting than an insight of the methods and work of an English institution
England has something in the neighborhood
dozen colleges or institutes where kindred branches are demonstrated in a more or scientific and practical manner to the youth. and directed by the Royal Agricultural Society remainder of the support is derived from tuition fes, and fees obtained for work of a scientific nature. Th majority of the colleges have been established in conaffliated with one in some way. In this respect many of them are not very much different from the so-called agricultural colleges connected with thie State Universities of several of the States of the Union.
The institution at Reading 1892, with the co-operation of the founded in June, Church, Oxford University. It was incorporated in 1.896. By authority of decrees of the University in Oxford, a joint committee, consisting of representatives
of the Oxford delegacy for extension teaching, of University College, Reading, and the Royal Apricultural Society, supervises the instruction and examinations in diplomas and certificates.

## sity of Oxford, and consists affliated with the Univer

 ments-letters and science, music, fine arts, agricultur and horticulture. Most fortunate for the college, and Institute is located in part of the same building. Thisaffords excellent facilitios affords excellent facilities for practical instruction along
dairy lines. In all the departments of the dairy lines. In all the departments of the institution
there are something in the neighborhood of one students. Only a small portion of these one thousan hundred and fifty, are enrolled in the Department on Agriculture. In this connection I shall confine myself to the work of the Department of Agriculture and the
British Dairy Institute which termed a division of the Agricultural quite properly be work is new and meager, when compared with similar branches in the leading American institutions. At the Fresent time, threc quite distinct lines are being drawn : cludes the division of practical agriculture, which in-
clock, field crops and grasses; second, the division of dairying, which includes the manufacture of breeding and care and management of the dairy herd : ing, feeding and marketing of the various classes of
pountry.
the agricultural department
1s under the supervision of Professor John Perciva
whose college title is that of A 1 icultwre tural Botany. He is a very pleasing gentlemand and has a very fine knowledge of botany. The more prad
tical side of the tical side of the agricultural work is conducted by Prof work, thus should do much good. Theae syy with his men teach the botany, field crops, These two gentlework. Up to the present time they have been very
much handicapped in their work the college did not have enough land at its fact that This objection will be removed in the near future, as vide grounds for field crop experiments, also will proThey have in the past been denied. First, a course leading to the degree of Bachelor
Science. This requires three yens scribed college work, largely taken from the science
course. course. There is hardly enough agriculture in this
course to distinguish it from a science course. course is intended for those who hope to become teachers in agriculture, specialist farmers, or estate agents.
The second course leads to the diploma in agricul-
ture, awarded at the ond scientific arded at the end of a two years' course in
studente students who hereafter may become, tenant farmers, farm
managers and land arents ccupations connected with agriculture or be engaged in The third course leads to a certificate in agriculture,

March) in strictly agricultural study. It is designe for students who will hereafter be practical farmers
and who are unable to take the two-year or The work given in these courses very attractive in an American institution. From a appearances it is not any too popular here. The fiel crop work is very largely studied and taught from
botanical point of view. The really practical tion, which is so attractive and eminently useful applica a large measure lost sight of. Perhaps the lack ollege farm might in a large measure be responsible ior the existing conditions. In this respect this college American colleges a few years ago in many of the them are not very far removed from it at present apparently believed that a course in agriculture should consist of those branches of study which are furthest emoved from the actual life and environments of the ate learnedness on the part Perhaps it may inditound the youth with terms which he has never heard as before, but history shows that it will not attract him combined

Live-stock department
It is impossible to teach the judging, breeding, feeding and management of animals in a recitation room pared. It is absolutely necessary to have the animals their judge class. They must examine the animals, pass necessary stock judge. No other wort or this kind will make omitted, is of any use. In the study the animal is same thing is true. The student who has seen a Tam in color, having a long nose, and other characteristic of the breed. He will be able ever afterwards to pick the animal, could stamp so firmly No teacher, withou student the characteristics of the breed. Thend of the illustrate such animal breeding, animals are necessary to terms which are indispensculinity, feminity, and other for a man who has not or is not in also impossible subjects ing and management of anumals, to teach edge of the a useful manner. He may have knowl of the necessary things with which the teacher just on perfectly familiar. The. cost of feedstuffs, their palatacombination can be best learned in of preparation an THE POULTRY DEPARTMENT
tary of the National Poultry Organization Brown, Secre on, who is ably assisted by his two sons Society, Lon-- and W. Brown. The work in this department. E different nature to that just described. It is take ap from both the theoretical and practical side. It is moultry inseful work, and will be of great value given on the college poultry farm, whictical work lew miles from the college. It is the intention of a the charge to have students desiring work remain during the vacation periods, and spend the entire time on the
farm. Some four different larm. Some four different courses are offered in this
department. The first, a ten-weks April 21st to June 29th, at the college and from on the farmd, a five-weeks' course, at the college and seven of which the third, a twelve-weeks' course, the first five at the collerge. the taken at the farm, and the last tical work only for periods of three provides for prac rangement at the college noultry farm, by special or rangement as vacancies occur. Examinations are held
and certificates granted for courses or work is well outlined, and takes one and two. The
manner the study agement of the different classes of poultry tha man egg production, preparation and dressing of fowls fo market, poultry diseases, and almost every detail for raisers. True would in any way be helpful to poultry leges have given aten American co jority, for some reason or other, have neglected ma to ande enterprise. It would mean millions of dollar and each and if each and every Province in Canada poultry school and farm as the one connected with a
Reading college. Last, but breat dairy institute.
British Dairy Institute and its work importance, is th American continent to do, few if any colleges on the vork. It is anent are doing as thorough and beneficial Benson and his able corps managed by Professor Miles
confined strictly to tants. The work is tory work is attempted. Those desirinairy. No facmust serve an apprenticeship in desiring such training Tory after they have learned the home dairy methods his is by allural odds the most popular division of the students were enrolled in the past year over eighty students come from practically all parts of the These learn the North American continent. They the globe, More than two-thirds of the students enronled making
present time are ladies. They are always in the ma-
iority, so I am informed. Some are preparing for
ieachers, teachers, others for farm dairy work, and others for dairy farming. The cheese interests receive the most attention; only a small amount of butter being made.
What is manufactured is prepared in a most attractive form for market purposes-cheese of all shapes, maies and names are manufactured. The building was erected a few years ago at a cost pf some thirty-five thousand ollars when equipped. It is very convenient, and kept
scrupulously clean and sweet. The curing-rooms for heese are well ventilated, and are constructed so as to Control the temperature. Laboratories are equipped Ior the teaching of dairy chemistry and bacteriology. The churns, separators and testers are all run by hand. This is done for the purpose of giving the student an mandance of actual practical work in the running and
manipulating of all kinds of machinery. The Babcock tester is not used, being considered too complicated, al-
so requiring too much labor and time. The Guber test so requiring too much labor and time. The Guber test
is the favorite, and several simple- looking English inis the favorite, and several simple- looking English inlar. Taking the work in all of its details, it is doubtTul if there is a better equipped and managed home dairy school anywhere in the world. Some co-operative cests are being conducted on practical dairy farms. To
certain extent co-operation work has been conducted certain extent co-operation work has been conducted
on farms by the other departments.
$\qquad$

## Korses.

## The Cleveland Bay

OrIGIN.-Native of the district of Cleveland in Eng are descended from the old war horse of Great Britain are descended from the old war horse of Great Britain,
while others maintain that they have resulted from crossing Thoroughbreds on north country mares. Between the years 1851 and 1867, the Cleveland was popu-
lar for long distance driving and for heavy coach work. lar for long distance driving and for heavy coach work.
The old type of Cleveland was adapted for drawing The old type of Cleveland was adapted for drawing
heavy loads at a rapid rate. The demand for a lighter and faster horse led to the infusion of Thoroughbred blood. These infusions improved the quality of the horse and lessened their weight, and had also an in-
fluence on the prepotency of the breed. Having been lired for a great many years, they had uniformity
of type, color and markings that made them very pre of cype, color and markings that made them very pre-
potent when bred to ordinary mares. The use of Thoroughbred blood to some extent lessened this pre-
potency, though it gave rise to other qualities which potency, though it gave rise to other qualities which
have proven to be of value to the breed. The breed was almost extinct before the formation of the Studbook in 1884.
CHARACTERISTICS - As now hred, the Cleveland Bay horses weigh from 1,300 to 1,500 lbs., and stand
over 16 hands high, and of rangy build. They are liright, though frequently a dappled bay in color, with
hlack points, never any white markings. They are

Have fine, long, well-arched necks; short backs, with either the hay or grain be found of inferior qual rumps long and straight. There is frequently a de- that of pood curality substituted. In cases where and coare quality among them, noticed in rough joints nothing in particular can be found wrong with and very even in disposition; are not popular for the it is possible there mav the some be changed, as production of carriage horses, owing to their lack of stance in it that camnot he readily detected. In quality. Their particular merit lies in their remark- cases when the symptoms are not severe, a change when crossed upon mares of other breeding. As sires soon be followed by a disappeatance of the
they they have not proved of much value in Canada in im-

## Dietetic Diseases of Horses.

Diabetes insipidus (polyuria) is a di ease char-
acterized by great thirst, excessive disharge of uline, rapid emaciation, languor and delility. In poor cuality, but in some instan:es it appears of be due to some constitutional cause, produced Through derangenent of the assimilative functions, either in the digestive canal, the solid organs or
the blood. In some instances it results irom digestive derangement, and disappears when the digesive apparatus has regained its normal condi.ion. It also, in some cases, accompanies other
diseases where dipestion is imperfet common cause, however, is found to the in most which the animal consumes. It has not been shown that it is ever induced by the water it drinks. Dark-colored, heated hay generally containing some ingredient which acts as a stimy lant to the kidneys, but there is prolably no cause so fertile as hay, oats, bran or other food
that is musty or that has been mustr, even though the appearance of must may have bee some seasons following a bad harvest we notice
the disease is quite common. and dur to damaged food.
Sessive thirst and diagnostic symptoms are excessive thirst and profuse urination; the urin passed is of a not quite, as cloar spexille gravity, and almost is noticed a fuiling of the appetite: the vicille mucous membranes are pate, or sometimes a rusty and umbeal hy looling. the the coat dry, staring ambition. rapicly. The pulse lacks tone, and is usually infrequent, though sometimes more frequent than normal, hut in all cases weak. The mouth has slean food and horse usually has a taste for unthe stalls and manger. The symptoms are so plain, especially the excessive thirst and frequent
voiding of clear urine, that it is not difficult fo voiding. ©f clear urine, that it is not difficult for any person to diagnose the discase.
Treatment, - $\Lambda \mathrm{s}$ in all diseases where it is peo silile, of course, the first. thing to the done is to
remove the cause. The food that the animal
symi toms.
gise a slaght purgative, as a pant of raw well to
rineded oil, or tine or six drams of aloes and two drams
ginger. The diet should be restricted to hay and ginger. The diet should be restricted to hay and been added a tablespoonful of bahing soda, should laxative has ceased to operate, iodine should be administered, commencing with two-dram doses as dally. given either in a pint of cold wate damperench ar mixed with bran or rolled oat diminished as the thirst disappears. lodine may a to a slecitic for this dispase. It ha the thirst of arresting thirst quickly, and as the quantity of uline voided will the apparent, the the dispase disappear as soom as the syptoms of comes charged with the drug. As soon as the and ayptoms, $1 \%$ great thirst and excessive must he discontinued elve wo will dition called iodism. If the apretite should not return, the ordinary tonics, as one dram each of sulphate of iron and gentian, should be given three times daily as long as necessary. whip,,

## The Morgan Horse.

A reader asks for a short history of the Mol Canada. and to state if any are now raised in Morgan ho understand the exact status of the origin of the light horses of America. When the writtey of the horses of this continent began to be ative about 1788, there were what were called stock, no downt owned barmers and others. This horses from difierent parts of Europertations of onditions and the nature of the work required o horses, all tended to the survival of a type par of this suited for American conditions. Horses of this type were active, clean-limbed, strong and The heavy drafters were not required in those days, as oxen did most of the draft work, the fancy driver had no place in the pioneering days, and the roads and tracks were not sufficiently improved for the development of the trotter or the exerci ing of the fast runner. With the increas-
ing of wcal:h and greater settlement, ing of weal:h and greater settlement, however,
there arose a demand for a type of horse for the
new conditions. In those new conditions. In those
days in this new land, towns and settlements fance apart, and travelest method of transportest method of transporta
tion, but the roads at the distances so great holse could not maintain
his running pace sufficient. rotting horse came most into demand. Natural now b, bond would bo conld trot faily well
and was prepotent. The most successful of such
solections was that of Mections was that of
Hensenger an Finglish hationary good tiotter II 1788 to Pas importen Nobhbering states for
 arting the tio of Mes

$\qquad$
$\qquad$
e werp being followed


## Shoeing Farm Horses

growing horse more than four weeke young and horse more than eight weeks. Most shocing
smiths have several had smiths have several bad faults, and the gheneral farmer is to llame for these faults. Many farm-
ers insist on the smith want to see him trim the hoof down real thin and do a nice, neat job of rasping down the
(ront of the hoof." Pretty soon the smith into the spirit of the thing, and, despite the fact that he knows that he is doing wrong, cuts away every bit of horn sole and frog that he possilly
can without laming the animal. Kepp tho away from the bars and sole of the tho knife any
further thin to further than to remove lits of detached or ragged
horn, and never allow a rasp, to touch the front
 laminitis. At five years he resulting in thothtonic
worthless, when I took him in hand. His to he he were rems, when and ho him in hand. His shoes
oiling his hoofs once a day to work plowing, with machine oil.
When his selt. When his services overe necedy wo the road he oill
an old set of shoes driven ond, the shoes being rean old set of shoes driven on, the shoes being re-
moved as soon as the roaid work was done. We
kept the thons kept the hoofs trimmed down petty well, and
kept up the oiling once a day for nearly a vend He was kert olling shod during a day for non nearly a year. and only a few days at a time during summer for
four years, and is as good a horse to-day as anv Attend to the colts' hoofs when they are pasture, and if they get too lomy trim them down.
1 have sien colts' feet get so long that the horn broke of up, to the sensitive part, and in one
case hew a colt to have a deformed hoof from

1HE FARMERS ADVOCATE

## Stock. <br> Marketing Cattle: Yard and Commission <br> Charges.

live stock at the various centers in the West was mentioned and hints given as to the improvements live-stock growers and feeders might returns for their and feeders might get l,etter largely skimmed by the middlemen tainly been retting the cream of late yo hate cer toirs (big. slaughtering and of late years. Abat needed in Canada, and such at ood wil centers in Manitoba, which are in dor large districts west, would be distinct In connection with marketing, kansas City conditions may be cited, and as the same condiin effect in other big markets, wequte lowing from a high official of the Kansio cit Stock-yards Company: ". The charges in cffect are: Yardage, cattle, 25 c. per head, $\$ 8.100$ per car: holdage, calves,. 10c. per head, \$8.00 per This charge is made by the stock-yards per head and includes, as far as the shipper is concerned ing the cattle from the car, yard faciiities. If they are fed while in other marke following charges are made: hay 80 c dred; straw, 40c. per bale; corn, 90c. per
bushel. This charge for feed includes the deliery bushel. This charge for feed includes the delivery
of the same in the pens where cattle are vardcd As you know, all cattle shipped here for sale are houses doing business of the various conimssion charge for selling live stock is as follows: Cattle or sheep, her ; maximum, $\$ 12.00$ per car. Hogs or more, $\$ 6.00$; hogs and sheep, per double car, $\$ 10.00 ;$ veal $\$ 10.00$ Veal calves, per single-deck $\$ 18.00$. In cases where cattle are unloaded and
fed, but not sold, and the forle points beyond Kold, and then forwarded to other loading, feeding and re-loading is $\$ 3.00$ per unStock is unloaded from the car, and fed and shijnkage is demanded on this account the time the arrive here and are unloaded abol sold without being fed, but where they are in the pens several hours before the opening of the n.ar-
ket, or before they are apt to be sold, :hev are

## British Farmers Co-operate

$\qquad$ farmers' organization gathered an idea of what a leading gress of the the many resolutions carried at the Conat Stratford, Essex, last week, was one Britain, held satisfaction the growth of co-operation amongst with
culturists, and pledging the Congress to culturists, and pledging the Congress to assist in the
development of co-operation in this direction, and the
establishment of establishment of trading relations betiveen co-oper
wholesale other resolution authorized the appointment of a con
mittee to make inquiries on thes. mittee to make inquiries on the question of co-operativ problem of profitable land culture, whilst a solve the lution on the subject of agriculture, whilst a third reso-
the resolutions passed to endorse the resolutions passed at previous congresses in regar
to small holdings, and to authorize the preparation of a scheme for the establishment of a co-operative land
owning society, with the object of rented to agricultural workers for cultivation by to be and their families; further, that the societies which ready possessed land be urged to try the experiment of
letting the same to the small holder in acreages larg
nough to enable him

## Improvement in Coates' Herdbook

## Canadian herdboolical recording of pedigrees in

 the Scottish Farmer, in its report of a meeting special herdbook commity of Great Britain: "The space, agreed that the pedigrees of dams should was agreed in extenso when first entered. This with the spoken opinions of stockmen with whom our idea that the system followed by the us dian Holstcin Association, and the Hereford and Aherdeen-Angus Associations south of the inter national houndary, is the most economical and,therefore, most sensible, noped that the members of the cattle They are built of wood, withry, Bowden and Penhold breeders' associations of Manitoba and the North- and shingled walls. They are being much appreciate

take up this subject of improvements in the running of the Dominion Shorthorn Association at Association comes before the of the men's annual meeting, it would be well for the director representing Shorthorns to call a meeting at the time of the Winnipeg Show for this pur-
pose, when some of the eastern breeders may be of the eastern siluatio

## Age of Breeding Sows

m a letter to the London Live-stock Journal, spencer, who has had long and ates letter appearing in a recent issue paragraph, in .. For the purpose of breeding stock that (iimately to take a place ineeding slock that lieve that fully-matured animals should be be t, as a young sow's first litter is hardly ever estined for any purpose other than the butcher hock, this is no argument argainst the butcher arly
Mr. Spencer writes : " I have for nearly hal breeding been trying to learn a little about pig that the produce experience leads me to believ breeding and exhibition purposes as as good fo of fully-matured boars or sows, or both. I could wive scores of instances in proof of my belief. will give one. At the Royal Show at Carlisle,
successfully showed a Middle White boar successfully
six months.
showed a Middle White boar unde
Early in September when about eight months old, I had him mated with young sow. The produce, ten pigs, arrived o of the young sows at is showed a pen of three where they each won first 1903 Royal Show The best young boar of the litter I reserved and have been using; the others were sold at high prices. I also reserved the best of the young Royal Show, and is, in my fored for the coming ery best Middle White sows in my opinion, one the Further, in proof that early use did not affect the Carlisle Royal winner, now named Holywell Bath and West of England I showed him at the where he easily won first prize in his class, the gold medal as best of his breed. int whem of the letter makes a very good be ng paid to the of the desirability of attention the general neglect of this most import the sow: rel has done more than all else to bring int qualit will some herds of pure-bred pigs. As a rule it will be found that the best miiking sow is also go quite so far as to assert mother. I do not go quite so far as to assert that late mating of qualities. Provided a young sow's parents have for generations been bred from good milkers, she qualities whether mated earty the same valuable does showing affect these hereditary in life, nor

## Death of Mr. W. S. Mar

gret the sudden death from heart failure, on Tues Aay, June 7th, of Mr. W. S. Marr, Uppermill very foremost breeders of Shorthorns in of the Britain, or in any other country. The Uppermil carried a reputation which is not bounded by years, has ducted some years the annual sale of bull calves, and centlemaintly by Mr. Duthie and the deceased Shorthorn year. The Uppermill families - the Missies, the Princess Royals, the Roan. Ladies, well known in America as they are in Britain. In 1901, one of the Missie females, direct from the herd, realized the great price of $\$ 6,000$ at public sale in Chicago, being purchased by strain has a very high reputation for all the goes to make up excellence in breeding. Only the other day, a bull bred by Mr. Marr was sold at
Buenos Ayres for Buenos Ayres for $\$ 11,000$. Mr. Marr was in the a fact which will intensify the two years of age, the news of his death will be received by Short-

New Stations on the C. \& E. Line.

Three new stations of attractive appearance
hie patterns have been erected on the C. P. R. ling
horth of Calgary, at Didsbury

## A Discussion on Grasses

 in this country is a cuestion for hay and pastur at any season. On the way from Macdonald to Longburn on the day of Bray's sale, this was oneof the subjects which took the attention of a party of stockmen, of which K. Mclvor, Virden, the veteran discoverer and champion of Wester Ivor prefers it to brome grass, because it mate es a much finer quality of hay, and is easier cured. This opinion
Campbell, M. W. W. P., Dreely concurred in by Glen
Pauphin, whose experience in making first-class hay from brome has not been the most encouraging, owing to the great amount of water which it contained making it difficult to cure. Mr. Campbell related an experience which he had in placing hay from the two grasses in the
same stack, in which the rye grass ase out in good shape, while the brome was musty and quite unfit for horse feed. Both these men were agreed that brome was very allicult to get rid of when very readily by the roots. Advocate" readers to to many "Farmer"s aforementioned grass enthusiasts believe it is nec
cssary to summer-fallow in this colen essary to summer-falton in this country in
to farm surcosefully believing that frequent seeding to grass is calculated to maintain the fertility in the soil, keep
it clear of weeds and sumply the hums necassary it clear of weeds and supply the humus necessary

Notwithstanding all that is said, witten anc from seeding a regarding the remarkable how comparatively little has been sown this year in some localities. 1 it is the old.
old story of wheat, wheat, wheat, and while we must all admit that a good crop of No. 1 hard is a moneymaker, is it not worth something to keep
the farm clean of bad weeds and rich in fertility

The Treatment of Alkali Spots. farmer was heard to say that he would like to know the proper way to treat alkaline spots in
his farm, and he made the statement that, under the present system of cultivation no improvement. but just the reverse, was being made. Many
people have believed that as these alkali
areas people have beileved inat as these alkaii areas
were cultivated, such would tend to become less alkaline, an improvement which was hastened by The Division of Soils of the U. S. Dept. Agriculture has come to the conclusion that the
only way to solve the alkali problem is by underonly way to solve the alikali problem is by under-
draining.
The investingating divi. ion tioned makes the following strong statepresent troubled with alkali do not appreciate the hecessity of protecting themselves, and it is a curious fact that just before the alkali becomes crop yields are the largest. In India large agriultural industries were destroyed by the rise of
1 kali . The iniurious salts in alkali are sodium carbonate, sodium chloride (common salt) maghesium and calcium chloride, sodium sulphate and
magnesium sulphate. It has been proved that alkali in cullivated land is the result of oversaturation, which can best be overcone by the
application of some of the well-established prinriples of land drainage. have the views of any of
We shall be glad to alkali spots, and their method of reclaiming or endering proittable the areas charged with alkali. the breeding of plants which will res st the alkali. In this country alkali appears in spots, and co
equently more local treatinent is demanded.

## Water for Engine Boilers.


he chipped off. The hard scale is due to the
phecipitation of the calcium sulphate by the high
temperature of the water under steam pressure. The bad effects of this permanent hardness can le partly overcome by adding sodium carbonate to
the water, by which means the less harmful stance is obtained, viz.: carbonate of lime. Subing on a boiler, as all engineers know, means loss inch scale causes a been estimated that a quarteroi the heat applied
matter inters do contain much mineral boiler plates if charged with acids.
With the saline
 time, is deposited in the boiler, and necessitates blowing off. An ingredient flequently found is great of magnesium, which, as a result of the the water, forms hydrochloric acid and magnesium the latter helps form a scale.

Three-flowered Nightshade.

receives cuts the creeping roots of the thistle, and
many of them take foot and grow again. Wher it is practicable to cover the field often enough with a shear cultivator to keep the tops of the weed cut on, hence prevemm it irom breathing a very expensive methwi. in mis this machine does not work 1.41 . inother soll besinning to blosom and then the thistles are carefully, with a chain properly attached to the less, because thistles had controi, completely cleaned in one summer in this way. The reasol in bloom is because the roots having supplied the are now in a weakened condition. In following this plan, it is necessary to observe great care in
plowing to see that not a solitary weed is lef seed. without it is desired to kill Canadian thistle summer-fallowing, and we consider the latter is not often necessary-there is nothing better than
working the soil up mellow in tho surine and seeding thickly with brome, rye grass or timothy Although it may be difficult to get a good cat $h$ of grass on a tield badly infested with thistles, yet when it can be secured it is a cheap and ef farms upon which a fair amount is seeded each any kind will be seen. Still another plan is to sow the thistly field in
good time in the spring with barley and plow challow, from three to four inches deep, and har now immediately after harvest. Follow, this with the shear cultivator once or twice later in the fall
or plow a fair depth teiore winter sets in. The plowing as soon as the barley is harvested will, f course, require to be done at a busy time, but abor expended

## Favors Soil Packer

Neased with results. I have used it both before and ffter the drill, but am in favor of the latter. I ind great benefit from using it on spring plowing, as it
prevents the soil from drying out, and seed germinates quicker and much more evenly than where a packer is not used. I also find that in harvesting the crop the
hinder runs much lighter and smoother than on land


## Dairying.

## Hints About Milking.

stable cle clean milk. have the cow whitewash for walls and posts is a good thing. and plaster is a good atsorvent in the stable. 2. Before commencing to milk, brush all loose 3. After a little manipuiation of the teats and udder, the milk is ready to "come down." Then 4. Milk as rapidly as possible without irritat5. No definite rule can be given as to how the and hands difier so much but cows differ thing, please the cow if possible. (6. 'There should always be a ficundly feeling lie-
ween the cow and the milker, and milkers should not be changed if it can be avoided.
7. A cow will not "give down" her milk to 7. A cow will not "give down" her milk to
a milker she hates or is afraid of, and what she ioes give will be deficient in butter-fat.
8. Always milk a cow in the same manner, at about the same time and suced. Any change "1.1 tend to irmate and excite her. 10 . When it comes to a cou's turn to be
and ed she knows it, and experts it, and wants to to she knows ll 11. If you disappoint her, and milk inalf voll and poorer milk than if you milhed at the proper ${ }^{12} 12$. Always milk the onw Hes hefore leaving is all drawn. 13. If part $\qquad$

Milk Analysis. A useful departure has just been announced it is one that is well worthy of imitation by the country,
Farmers Farmers orten desire to know the amount at in the milk of individual cows of the mixed
milk of their herds. is of value in showing which cows kive the richest milk, and, when ssstematically ascertained, what extent any change of diet affects the mill In the case of the mixed milk of the herd it als age ( 3 per cont.) of fat required to avoid any
doubt as to the genuine charracter of to An order that farmers in xorkshire may have an opportunity of making use of such information in made for the testing of samples of new milk for fixe amount of fat. A nominal fee of 6 d . has been sample sent. A report as to the percentage of
fat found in least possible delay. The forwarded with the for the information of the milk producer only disputy ne regarded as evidence in case of any quality has been questitid buyer, or where the In such cases the ordinary ny public authority testing must be followed. The Agricultural systeil are desirous of encouraging farmers to milk producaly test and observe the quality of the any information as to testing, and to this end of testing, etc., will be gladly given by the col lege.-[Mark Lane Express.

## Poultry.

## Getting Birds Ready for Exhibition.

 In preparing birds for exhibition, it must bborme in mind that the different breeds ren borne in mind that the difierent breeds require
different treatinent. In the first place, we will take the large-combed breeds, such ase, wie will
Leghorns, etc. In thercas and lobe play such an important where comb cockerels, and pullets require sonewhat different When the young birds orecure the best results five months it will be quite reached the age of best and those you wish to time to select the the show pen. Having made our selection, the tected on all sides from the whaded runs, proand if the pen is darkened, all the better to warm or they' will shoot must not be kept too thereby become useless as exhihition comb, and Therefore, it will be seen that, although it is nec essary to give them absolute shade, it is nec essary at the same time that the run shall be well
ventilated shaded runs and as warm as possibl, require warnth will help develop the comb, so necessary in pullets. Should it be found impossible to pro covered runs on in the pullets whilst in these indoors to a warm roons they should be removed ened pen, but still having sufficient light to enable them to eat. They must not be kent too lonra in these warm pens indoors, otherwise they will be table to ko white in face, and the remedy will
be worse than the disease given each day, and once. a day a few micks of
finely-shredded raw beof The consist of bread and milk during the time that
the bivids are In the case of Minurcas, it will be advisable to add a litue citrate of iron and potash to the
drinking water, using onls enauncl vessels for the murpose, not rinc. The evening fecseds should be
white Canadian peas, and these will tend to put a Hess on the plumage, so essential in Minorcas.
The same instructions apply to Brown Leghorns, shredded smeat, wodl allo water, excenting the
dark-llum to all black and
 Bidds of white phimage should mise

 Sun if they are required for the show ren, and
this shading should take place just previous he hept put so long as they are requited shonld Feather-legged birds, and more especially tho hould be leipt on dry, sandy runs: fine seather sand
 becoming broken, These birds should not from
quarters should be covered with a good thicknes
of chaff or very fine peat moss litter. All soft feathered breeds, no matter what color, should ing their growing stage. On the other hand all hard-feathered birds, viz., Game and Game Bant ams, require plenty of hard food, such as whit Canadian peas, good stout oats, or the best red portant part nothing beats white Canadian im and these will also keep them in hard condition. Game birds, owing to their nature, should have as much freedom as poseli.e ; consequently, whet be preferred to artificial.


Rose-Comb White Leghorn Cock.
TREATMENT
${ }_{\mathrm{d}}^{\mathrm{oF}} \mathrm{D}$
park-plumaged birds require to be washed so ireauently varieties do no buffs, although a good wash now and acrain wil greatly improve the plumage. In such cases
when it is not necessaty be all the better fors being wash the bird, it will a damp sponge, using clear tepid water, and afte thoroughly $d$ (going the way of the feather polished with a silk pocket-handlerchinef the surprising what a beautiful sheen can be put on
to a biack bird in this to a back bird in this manner, and this should
always be done the day previous to sending to a In the firct washing birds

## In the first place, three bowls



Rose-Comb White Leghorn Hen.
the bird should now be allowed to stand un, and ubbing the feathers well all the time with you hand, and squeezing out the dirt. Repeat the merse the bird in the water again to cet at the soap you can, then place it in water No Whit 1 with the be warm, but not so warm as into the feathers, and this must be done water well y , or all your abor will be in vone thorough trace of soap is allowed to remain the bird wiil be in a worse condition at the finish than when and put into bath No. 3, which should cen ou water new-milk: warm, or just with the chill ene case of white birds, a little blue should aded o the third water, just sufficient to tinge do not put in too much blue when washing white On the other hand, in washing Barre
Rocks more blue must be added, and this will prove the ground color considerably. In using the blue, it should be placed in a piece of flannel squeered out as the case retuives and as much ouft breeds of course quired. After having sponged the bird thorough-
ly in the third water, all the water possibl should be absorbed by the aid of a sponge, an if the sponge be a large one of good quality, the move the bird from the water, and wive him re ty as possible with the aid of a towel, afte hamper or shoni be placed in an unlined exhibition (the former preferi), with some nice wire pen. or straw in the bottom, and the hamper shay fire, and about two feet from a nice hright such as a newspaper or a piece of canvas the back on the draught. The bird should not be allowed to stand in one position too long, but should be should the feathers may dry equally all over. This should be continued until he is almost dry, whe he will begin to dress the feathers himself. The with a silk pocket-handkerchief in rubbed down out the feathers properly. It is always advisable they wash birds at least three or four days before they are required for exhibition, for if a bird is

## Forticulture and Forestry.

 The Wireworm.
## own as the click

 may be found in land that has been plowed from and the previous sumer. During May and owed from sod the latter in this country, the eggs are laid in grassland, or where weeds are plentiful
Ry midcummet larve or young worms are hatched, and begin feeding upon the roots of plants. In this worm-like state they
remain for considerable time, two or three years ally being required to complete the or three years usually being required to complete their life history.
In the change from the worm to the beetle state
 hy itselt, it becomes trausformed to a beete, woun
state is al ways entered in the fall, and completed be-
fore winter berins it it rore winter begins. It is rarely, however, that the
young beetle moves from its position in the eanth springtime.
Of all the insects that entomologists the earth until
 of experiments was lengthy and carefully conducter series
ontried on at Cornell
tation and tation a few years ago. Poisons of all kinds were
used, and upon most of then the wirenorm tiver even anppared to thrive. then the wirexorm lived, and
strychnien such had no eflicet. strychnine had no effect. The conclusions drawn from
these experiments were that
 an good towels (ordinary bath towels preferred), and
and suply of soft water. Bowl No contain warm water, as warm as you can comotrt-
ably bear your hand in, and sufficient in to immerse the bird, just leaving the head above
water when held down in thich and wattles should be well scrubbed with pose, then wiped orry winary nail-brush for the pur them there for three well soaked in water, holding the nail-brush and soap, and give them a vigor
ous scrublying, and if then neath the scales, this should lo remot left under stant of your penkniice, or, better still, a matchmoadivy inserted under the scales and all dirt re-
morveding done
soruulied with
It was found that while in the pupa state it was moct
lelicate than

## Mulch the Trees

$\qquad$ of rotted manure before the scorching mulch of straw
July and A Ausust is antorded an ouportunity of sun of
ing the moicture time to supply a mulch, and it mat takes but little he trees. If straw or rotted manure mean the nife of handy
rass may be had. $r$ stones placed around the few pieces of short hoards nround youny trines ellse will bo the trunk, and when should extenth nearneft. Atwo feet from

JUNE ' 29,1904

## Prepare for Tree-planting


may be manufactured for less than $\$ 500,000$ per pound

The death list of the disaster to the General Slocum,
which was burned near North Brother Island, New
York City, is now placed at over 800, but many more nay have met death. The captain of the vessel is
severely censured for the manner in which he handled her after the fire broke out.

A despatch from the British camp near Gyangtse
ays that a lama recently captured and brought into camp has given information that Gyangtse is held by
7,000 men, armed with 600 riffes of European and 30 jingals. armed with 600 rifles of European pattern,
and that all the jongs on the road to Lhassa are held by
trong forces, and that the apparent intention of th Thibetans is to appeal to China for help.

The desultory skirmishing which has been going sweeping victary for the Japanese. On on June 15 th 35 miles north of Port Arthur, between General Okw. army and a division of Kouropatkin's, which had been
sent out in command of General Stakelhura Japanese lost heavily, 1,000 in all, killed and wounded, but were successfui in driving the Russians from their
position, aiter capturing 300 prisoners and 14 guns, According to latest reports, the Russian losses in all official notice states that they " retired under pressure is superior numbers," withdrew to Wafangan, where, it
is now in a precarious position, being sandwiched in between two Japanese armies, one unde
General Nodza, the other a part of General Kuroki force. Military critics censure General Kouropatk
severely
for having despatched severely for having despatched General Stakelburg on a
hopeless errand. However that may be, the immediate hopeless errand. However that may be, the immediate an end to the Russian hope of relieving Port Arthur Vladivostok squadron, under Admiral Skrydloff, havin sunk two Japanese transports, one of which was laden
with troops.
Recent reports captured some of the outer forts of Port Arthur, and
that a terrible battle has been fought at Huicheng

## Field Notes.

The crew that will represent the Winnipeg rowing
club at the Royal Henley regatta left for England on
June 14th. John Elijah Dowie, disgusted with his reception in
London, where he was refused admittance by all the London, where he was refu
hotels, has gone to France.
London.-King Edward has conferred upon Mme is the first woman upon whom it has been bestowed. Winnipeg.-The contract has been let to Robert
Fairbairn, of Essex, Ont., to erect three hundred miles of wire fence along the Canadian Northern Railway system. This is the biggest contract of the kind ever Gen. Cronje, of South African fame, who is at pres marry Mrs. Steetzel, the whdow of one of his war companions, who is also at the Fair. General Cronje is
gixty-eight years old. Mr. Brodeur, the Minister of Inland Revenue, has received a cablegram, informing him that the bill making the metric system obligatory in England has been
adopted by the House of Lords. The adoption of the system in Canada, it is thought, will be only a matter

[^1] Association, stated that pneumonia is a virulently com-

He recommended that patiéts shoul
hold moistened sneszing and coughing, in order to prevent, as far ossible, the distribution of the microbes.
Dundonald, which between the Government and Lor in military and political circless recently, has resulte ral Officer Aylmer, Adjutant-Generan, will assume the office, pend ing further arrangements, which may result in the sub stitution in the place of the General Officer Command
ing of a Military Council ing of a Military Council, with an Imperial offlcer

The Calgary Summer Fair.
The prize-list of the Calgary Summer Fair is now
ready for distribution, and bears evidence that the
directors of that fair are determined this year to make a strong bid for a large exhibit of live stock. The rules and regulations have been entirely recast, and ar-
ranged in more convenient form. The class for agri ranged in more convenient form. The class for agri
cultural horses, which has in the past been very pory lar, has been increased in value. In many instances tory feature is the increase in the prizes for saddle horses, the Territories being especially fortunate in the It is, however, in the cattle classes that the most
sweeping changes have been prizes have been more than doubled in The Shorthor none, barring the Dominion at Winnipeg be second to Superior, a total of $\$ 700$ being olfered for competition The Hereford money has been raised from $\$ 140$ to $\$ 400$, chiefly due to the action of the American Here
ford Breeders' Association in giving a grant of $\$ 200$ In the sheep, swine and poultry classes considerable
changes have been made are now offered for pigs of the bacon breeds. poultry classes have been entirely reconstructed, and made to bring out a an honest effort has now been ers' and farmers' wives have not been overlooked. Large increases have been made in the domestic depart-
ments. The class devoted to ladies' work has also been entirely rearranged, and the prize money miaterially aug
$\qquad$ terest by reason of the decision of the Retail Im-
plement Dealers' Association not British shows the implement classes are among the most made for and attractive on the grounds. Classes are plement men will, however, probably be conspicuous im their absence, as usual.
Copies of this prize-list may be obtained on application to the Manager of the Calgary Fair, Calgari-

Bird's Hill Plowing Match.

beautiful, and a large crowd was in The weather was four hundred having gathered before the day was done argest contestants numbered twenty-three, being the
 Farm, did the judging, and gave good satisfaction. The
President, Capt. Smith, with his Secretary W

$\qquad$
$\qquad$

Excursion to Indian Head Exp. Farm


## Canadian Seed-growers'

 Convention.
## The meeting for the organization of the Canadian

 Seed-growers ${ }^{\circ}$ Association was held in the Imperial Building, Ottawa, on June 15 th and 16 th , Prof. JasW. Robertson, Agricultural Commissioner. in the Mr. G. H. Clark, Chief of the Seed Division, Depart ment of Agriculture, Secretary. The object of this tution is with a view of improving the yield and quality field crops of Canada. This movement is an outgrowth of the Macdonald-Robertson Seed-growers' Association which had its origin in this prize competition throughplots, sowing the grain from these, and, in turn, selecting the heads from these again, and so on. In demonstrating this idea, Prof. Robertson had the liberal aid tions were conducted in all parts of Canada, and, in to syse take advantage of the work so initiated, and to systematize the growing of high-class, clean seed by
a number of persons in bvery locality, the meeting in time ten farms on an average in expressed that in electoral district, might make a specialty sounty, or work. Not only would these persons derive the advantage of a very much better price for their crop sold
for seed, but their own crops would be and improved. Among others present greatly increased Greig, Winnipeg, Man.; Jno. Mooney, Valley Rivar, Man.; G. A. Putnam, Supt. Farmers' Institutes, Harcourt, Chemist, Guelph; Walter Simpson, Bay View, P. E. I. ; S Minister of Agriculture, Quebec; Donald Innis, Tohique Wilson, Ale B.; W. L. Davidson, Bethel, P. Q.; Lockie Ont.: J. H. Grisdale, Agriculturist, Central Experi, mental Farm, Ottawa; W. Thompson, London, Ont. Gerin, Coaticook, P. Q.; W. L. Smith and J. W. W Jas. Murray Joronto, Ont.; A. F. Ketchen, W. A. Olemons, A great deal of time was devoted to perfecting the will carry and rules under which the organization rected by the Chiof of the In the main, it will be dimert of Agriculture and the Commissioner the Depart rectly advised by a Board of Directors, and more
bmall executive committee, chosen by th general principles.
mental principles of plant life and growth - individ al power and environment - in accordance with inid beo must be produced. The plant grows by taking in,
by absorbing and by assimilating. quality and perfeztion of the plant depends upon the tics of seeds include the sex power, constituents, such as protein and starch, and the essential oils to preserve. Man grows a plant with the power, under certain conditions, to produce what he wants. To il-
lustrate, he said, by careful and continuos of seed, and careful growing, the percentage of fifteen per cent. France had been raised from nine to Sir Wm . Macdonald seed-growing competition was an spent in Canada to greater advantage, and the reeuld was the growing of larger and more vigorous crops. The Assoclation now proposed was not designed to engage in plant-breeding by crossing, nor yet to be ex-
clusive, and say that such other lines of work were not useful. He congratulated Mr. Clarke, the Chief of the Division, upon the success which was attending his efforts and said the Government was willing to ald the
movement now undertaken by furndshing finds partners, then, were represented in this educatione movement for the advantage of agriculture-the Govern together with good will. (Aplause) farmer, working Mr . Clark submitted a detailed report of the work
of the Macdonald-Robertson Seed-arowerg in which a large number of persons had completed th to divide Canada into four great districts-(1) Manitol and the West to B. C., (2) Ontario, (3) Quebec, and
(4) the Maritime Provinces-in each of which there will be an inspector or superintendent, to oversee the work promote the objects of the association. Mr. James Murray, B.S.A., who has been doing very efficient work
in the Department of Agriculture, has been desimnated in Manitoba and
tario, whinues similar work in the frovince of ot Cote, another well qualified man, will superintend the
$\qquad$

THE FARMERS ADVOCATE

Coming Events

## News Notes from Ottawa

growers' and other organizations in which farmers are interested, may have the date of any important events ing list by addressing a post card contaning the inYornation to this office
Blyth Plowing Match
Carberry, plowing man....................................... 2
Municipality of Morton, Plowing Match....................July Brandon Plowing Match .................................................
The following dates have been selected for holding

FEdmonto
Minto

$\qquad$

$$
\begin{aligned}
& \text { Morris, fialr } \\
& \text { Pilot Mound fair } \\
& \text { Pinnisal }
\end{aligned}
$$


Wawanesa, fair ....................................................................................................... 19
Holland, Man.
Neepa wa ........................................................................................ 19 19-20
Hartney fair
Hartney, fair …………................................................................................20
Yorkton, fair ….................................................................. $19-20$
Killarney, fair ................................................... $19,20,21$


Ft. Saskatchewan …......................................Aug. 4-5
Oak River fair
Oak River, fair .............................................................................................................. 10
Treherne, Man. ................................................ Aug. 8, 9, 10

Strathclair, fair ............................................................................ 11
Broadview ..................................
Wapella, fair
Lacombe, fair ……........................................................................................11 $11-12$
Grenfell, fair
Fairmede, fair
South Qu'Appelle .................................................................... 15-16
Carlyle
Lethbridge, fair ……...............................................................16-17
Regina fair
Moose Jaw, fair

Chilliwack .............................................................................. 28 28




```
C
```

Wetaskiwin
$\qquad$
The president, secretary-treasurer and five director
to be chosin by the board of directors constitute al
executive council,

Commissioner.
Vice-1'residents-(Deferred.)
Sec.-Treas.-Mr. G. H. Clarke.
Directors elected by Association-Thos, A. Peters.
Fredericton, N.B; Walter Simpson, Bay View, P. E.
Guelph, Ont.; Prof. C. C. James, Toronto, Ont.; A.
Smith, Langlank, Ont.; Cieo Harcourt, Megina, N.; John Moones. Valley River, Man. Regina, N.-W. I. IR. C. W.S.": The appearance of a third edition ofOttawa, (ont; W. L. Davidson, Bethel, Que. Gisdale, this work within a few years indicates that the author
Directors chosen hy the foremoing - F. L. Fulter has "secured the market." it is a result to whichWheaton, Toronto. Mignon, St. Adele. Que; J. W. he was well entitied from the quality of the book, andDirectors named by the 1'resident-S. A. Bedford, parceds of which is accounted for by by less than 270 new pllustrations
Sunt. Experimental
Fxecutive Committee-J. H Grisdale. Ottuwn various hreeds of horses, British and foreign, and
Brandon Plowing Match Off.


Of Interest to Veterinarians and Horsebreeders.

Mr. W. D. Scott, Dominion Superintendent of Immi-
Colonization Committee of the House of Commons, on June 14th, said that agents in Great Britain and the continental countries found difficulty in securing persons willing to become farm laborers in Ontario and Quebec He explained that the foreigners preferred the more ad venturous life in the Northwest. The committee wer unanimously of the opinion that the most importan duty of the Immigration Department was to bring a the farmers of older Canada to procure laborers. The Immigration Superintendent stated that the unsteady character of farm work was responsible for much of During four or five months of the yar he poind they had to go elsewhere, and they seldom returned. Dealing with the cost of immigration, Mr. Scott said pound each for immigrants: in the British, paid on pound for males and half a in the British Isles, one pound for males and half a pound for females, and in dollars for female adults, and one follar each children. The tour of the nine British editors at the expense of the government, last year, gave such good two hundred newspaper it was the intention to bring under similar arrangements. The Government penses, including railway fare, the compensation being descriptions of the trips, published afterwards in the Superintendent of Immigration expressed himsele posed to "colonizing," even among British subects He said the Barr colony had not been a success where those people settled together. They cultivated no more
than three acres for each family. Fast of Battleford some of the scattered ones were prospering. Last winter the Government took care of eight families of the Barr
settlement who became destitute. In the past year Mr Scott
was given to reception and location special attention The Canadian Government bas been requested take part in the American Exposition in Portland,
Oregon, next year. This is an exhibition Oregon, next year. This is an exhibition to com-
memorate the annexation of the Northwest territory the United States one hundred years ago. Col. Henry
E. Dosch, commissioner general of the exhibition, has been in Ottawa for several days conferring with the Mr. Fisher and has interviewed the Prime Minister, tire told Col. Dosch that on account of of Agricul five other exhibitions in which Canada was taking part, purposes, but that he would look into the proposal. afford a good opportunity for attracting that it would On this account Mr. Sifton will look into the matter
in conjunction with Mr. Fisher. The sum is mentioned as sufficient to make a fair display of
Canadian products. Canadian products.
Mr. William Hutchison, Canadian Exhibition Com tawa. He left the fair, is paying a long visit to ot prise got well under way, and is now arranging im Agriculture. He says the fair with the Minister of reditable display of Canadian live stock by privar for
D. C. Flatt \& Son's Yorkshire Sale.
$\qquad$ imported by Messrs. D. C. Flatt \& Son, of Millgrove, Ont., proved quite as successful as tras expected, the
average on the whole lot figuring out at $\$ 88$ a head. The highest price, $\$ 380$, was reached in the case of two of the sows, both of which magnificent animals, Bottesford Satisfaction 5th, fell to the bids of Mr. T. largest buyer, his purpose being to make an extensive
exhinit of herd being now under the capable management former Canadian breader, Mr. Norman M. Blain, St. George, Ont. The highest priced boar, the 1 by the Varl of Roseberry, was also, after a spirited did plucky hidding throughout the sale, securing dian share of the best, Mr. Richard Gibson, Delaware, Ont landing the Leautiful yearling sow, Walton Nell 14th Ialmeny Cotgrave Duchess 2nd Lowville, the yearling Hill, Wellesley, Dalmeny Duchess, 45 th, $\$ 145 ;$ Mr. John Hinl, Wellesley, Dalmeny Duchess 45th, at $\$ 140$; Messrs.
James Wilson \& Son, Fergus, Datmeny Duchess 50 th,
at $\$ 120$; and Mr. Wm. Enrlish, Detrola, ling boar, Wors

To Judge at Fairs

In the Agassiz Valley, B. C.


Harrison hot sprives.
"ithin, five miles of the Nassiz station is the noted
atmy womlerful hot springs, a beautiful, healthy and Wowsant summer resort and sanitarium, which will no
doybt be connected in the near future with the C.P.R.,
iny an electric tramway. These springs were first disovered hy miners on their way to the Cariboo coun-
try, ahout 1856 . The waters then had been used by tumprature of the water is 154 degrees. In the Tays
of the Cariboo gold excitement the white prospectors
used the springs for cooking salmon. The prespectors
that on the present site of the St. Alice ind hotel the Sachems of these persecuted tribes gathered in councils of war. Forth from his tent sprang the Machie Sandsh,
striking terror to the hearts of all the assembled chiefis In their extrenity they called upon, the Sachtie Tyee
(the (reat Spirit) to preserve them. Instantly the was a mighty roar; the recks rent asunder, and into
the ahyss the monster disappeared. A rush of boiling water and steam poured from the rocks, hence the
springs. The Indians still have a venerable regard for me locality, and at the present time listen at the
-prings for groans, which they say are yet heard, the ugonies of the Machie Sandsh.
A few enterprising men have already engayed in busihess. Mr. C. Inkman T am told is the pioneer mer-
chant, coming to the valley in 1886, and has since kep a general stock of all kinds of merchandise that the
citizens require; also the Webster Bros,, general merchants, with headquarters at Vancouver, and the general postmaster, Mr. White. The various churches are
also represented, and the education of the children not reglected. I cannot close without making special men-
tion of the hotel accommodation, which is everything that could be desired. The Hotel Aberdeen, host
Lemon, and the Hotel Bella, conducted by Mrs. Roberts
and her obliging stafl of assistants, are fully up-to date in every particular, and would do credit to any city i
this fair Dominion of onrs

## A Veterinary College Moves.

 under the leadership of his son. .'rof. W. O. Williams,
decided to leave the field at Edinturgh to rival, the Royal (Dick) Veterinary College, and go to

$\qquad$
$\qquad$ aged to wiggle along; although the lick endowment
has been heavily drawn upon to support the unfortutions, yet withal the standard never sufferedch institu-
pity . F . F . Williams had not moved to a point in Can-

## A Funny Resolution

## Boards of Trade held in Calgary recently: . Resclved-That in the opinion of this convention a duty of $\$ 2$ per thousand should be imposed upon American lumber enterine Canada, under such con ition

 in price arising hy, reason of the imposition of such$\qquad$
$\qquad$ nhove resolutia the convention must have I nown, the Which is far toon high Treght that orifre of the e. .'

## CONTENTS OF THIS ISSUE

Sugar Beet Lecturers. ranged to have a series of institute meetings in sugar-beet districts of Southern Alberta, addressed by American experts in the growing of beets for profit. There is much yet to be learned ahout this industry

## Song Birds in Manitoba

Several pairs of orioles, conspicuous from their black trees in quisite music. These beautiful binds must be commo in this country, for, although seldom seen in the woods the old nests which hang pendant from the end of
branches can often be observed in the forest when th

## Cleanliness is Profitable.

## advance of previous years, and one of the small thing

 about the farm that we should like to see all farmer unop and hat Is not simply for the sake of the improved appearanco that we advocate this practice, but because it destroys ince, germs of disease, and germs injurious to dairy dirt, clean out the mangers, and then with pump give the ceiling falls and foor wha a sprat two of well-prepared whitewash.
## Markets.

## Winnipeg Markets

Wheat-No. 1 northern, 84 c..; No. 2 northern, 82 c . cash and in store, Port Arthur or Fort William. Oats-No. 2 white, 39 c . to 41 c .; feed grades, 37 c . lieved that there is a six months' supply of old hay left. Choice prairie, \$13; timothy. $\$ 19$.
rects a decline in butchers' prices. Best.

Hogs-Liberal offerings of hogs at

## Chicago Markets



## British Catcle Markets.

## Montreal Markets.

$\qquad$
$\qquad$
$\qquad$
$\qquad$



Five years betero when Solomon Green
had assed Tirah
Hitchocock to become had asted Tirrah. Hitch hoock to become
the seocon Mras. Green she had tartiy ro
then


 $\xrightarrow{\text { Solomon thad reasoned all in valn. }}$

 tho fust thing llook at, an' it I wasn'
to seo the smoke a comin' out

 houses when one would doo sest as well ? ? changed a dozen worts. Solomon had not marriod, neither bad TTrunh, nad
now,
on the the night pefore her fortieth birthay, she sat looking around her orterly ilitile home with the most deso-
late feeling at her heart spe had known
tor To-morrow would be her birthay,
Mecehanically sho had bono throubr day. Mechanically sho wad gone through a teiv
preparations
tor
that rather dutions
 inside the samen pan in which heranting
had been
roasted tor to

 Jelly to be theirs on the morrow. Year, had Trirah's hens been laying so
well. Her cow had never been known to give
so orargee ne vieldo of milk. There were
 was the loudest singer in in tiln the viliage
Hut for all lins Trrah was not satisfed.
 tor sol solumon green had urexpecteally
mar course, this was nothing to tiraht,

 milk, sat down in her cane-seated rocker
and burst out cring. droppect her almern and locket Euillily
abouti

 proposal; eicich wrend as it had been Muss Tiranh would have scatereod than







 breakfast yet for th
indignant dependents. Loud and angry rose the protest cat and canary snug stall, while the old Meanwhile
huge redouched Miss Tirzah wrapped in tering betwegreen shawl, her heart flut her eyes watched with fevered anxiety the house just up the hill. her deep-laid scheme when faced in the Of course he had forgotten, years ago, to watch her chimnerg. What was it th
him now, whether sher him now, whether she had a fire or not?
She would go this very minute and build
$\qquad$ coming out of Solomon's front door
Someone-why, it was Solomon himselt creeping forth as if he had just been en gaged in stealing his own spoons and
was now making off with them to a pace of hiding.
Where was he going ? The heart of Tirzah stood still for one
long and nerve-destroying second, then it went on again with such a hammering and commotion beneath the red-and-
green shawl that a less plucky woman
would have fled for the on the instant. Solomon was coming down the hill
straight toward her tiny home. Coming it is true, not as the conquerors come
with bold and martial tread, but after a timid, slinky fashion of a man who has had his last timid advances in that
direction scorned. When it was certain past all shadow of house, Tirzah, the crafty creature, be
took herself to the cane-seated where, wrapped to the chen in the big
shawl, she waited with palpitating heart for the timid knock which at length
sounded on her door "Come in," She then called feedly, at
which the door was opened cautiously inch by inch, until the entire figure of the
middle-aged lover was disclosed to view. At the sight of Tirzalh, bundled up and ". Why. Tirzah, are you took sick?"
came in the loud, cheery voice which had not sounded in the room for five years freeze the hair off a dog's back. Let
me fix you a fire." In a few moments a cheerful fire was
roaring up the chimney. To be sure,
there were more chinc on Was siting heside her, ind ifiring kindly
when she "as took ". and if he should-
n't go and " Setch the doctor?".
". Yo I've kinder got into the habit. mornin'-
I know
you don't like it, but-eh-why, Tirzah,
woman, whatever ails ye? ".
most screamed it in her excitement
I do like it. I-oh, Solomon-I didm And Solom a And Solomon-
He rose then ard
The Housekeeper.

## Travelling Notes-Naples.

 meek I am to Lake Momie s place and recount a few of our adexcursion that would just suit an purses and inclinations, we hurriedly made up our minds to a three days visit to the neighborhood of Vesuvinight travelling disadvantage was the night travelling on the outward able first-class carriage all the way to ourselves we did not fare badly in the matter of sleep. Our arrival be fore daybreak on Sunday morning might be considered an awkward added fresh interest, for we certainl saw a side of Italian city life that We otherwise never would have seen tion at that hour, and all the houses were in darkness. Our only resort until daylight came was the restaur ant, which, fortunately, was open, and we made a hearty meal before setting out. Day having made its
appearance, and with it the cabs, we took one of the latter, and were soon rattling over the cobblestoned ly to forget. Seated in a small baby Victoria, with the driver perched up high in front, and drawn by a stout little pony, we dashed along at a rate that imperilled our escaped a collision with an electric train, and flom that time we held might areath in suspense as to what through happen. For miles we drove with life of a different nature from anything we had hitherto seen. Herds roped vided with jingling driven everywhere up to the being doors of the leading thoroughfares Here and there we would see them being milked into small jugs or are driven upstairs the goats landings that the customers different and the milk is not being watered, ful the unscrupulous milkinan puts
the water in first abounded everywhere, with the shops est looking meat. In many places resemble what looked more like cats, meat than that for human consumpafter much climbing of hills, we
stopped at our nension but another place lower down the
hill was hill was
followed.
recommended. it it descent Napleatiful view of the T3ay of tre distance. From the vegetation around us, the orange, lemon and

## Domestic Economy

 cream pie. Make a bottom crust in a deep pie tin,put in a number of holes with a fork, and bake in a quick oven. This may be baked a day or two before using if more
convenient. An hour or two before wish to use the pie, take one pint of moderately thick cream, place it on ice
or in a very cold place or in a very cold place. A short time
before dinner beat it very stiff with an egg beater; stir in it two tablespoonfuls of sugar, and a scant teaspoonful of vanilla or a tablespoonful of sherry, as
preferred. Fill the crust with the cream and serve
crfam rhubarb pie.
To one cup of finely-chopped rhubarb
add a cup of sugar and grated rind of orange or lemon. Put a tablespoonful of tablespoonful of cold water and pour in enough boiling water to fill the cup full; add this to the rhubarb. Beat light the ture and pour into a pie dish lined with good crust. Make without top crust.
When cold cover with a meringue made with the whites of the eggs and half a cup of powdered sugar. Brown deli-
cately in the oven.
Serve cold.
rhubarb charlotte, Butter a baking dish well and cover the
bottom with bread crumbs to the depth of an inch, then add a layer of rhubarb thin. Cover well with sugar, then add another layer of bread crumbs, dot this layer with bits of butter, add another layer of rhubarb, sugar and crumbs, and
so continue until the dish is full , have the top layer of crumbs covered with bits
of butter. Bake slowly-covered at first for Bor blat

TApIoca cream Soak over night two tablespoons tapi-
oca in enough milk to cover. quart milk to boiling point. Beat well and one teaspoon vanilla for flavoring stir into the boiling milk, add the tapiSarve let boil once, and take off the fire.
Sarve cold. The whites of the eggs may be kept out to spread over the top, if whisked stiff with three tablespoons fine sugar. Tapioca cream is delicious
served with sliced pineapples, bananas served with sliced pineapples, bananas,
or oranges. With fresh berries it also combines delightfully. When used in this layers with the fruit, and the fruit should be lightly sprinkled with sugar.

## Her Mother's Voice

 ". Imprinted scenes of love gone when the daughter, in the very tones of her young mother's voice, singsone of the old, old songs he loves so one of the old, old songs he loves so
weil. By the rapt expression upon his face, by its far-away look, and
by his attitude of intense attention, we know that he is living over again
a scene of his own happy past. Just a scene of his own happy past. Just over the pages for the sweetheart of
his youth, and if the young couple should have any very especial request moment to prefer it than now, when,
the dream ended, the past merges the dream ended, the past merges
into the present, and the father's
lessing is asked in the sweet tines


I Know Whom I Have Believed.'
Want-am made for-and must have a mere can
Want
Want, but the True Thing with
proves Its truth,
To Wit, a relation from that Thins
Touching from head to foot: which rouching from head to foot: which
Touch I feel, And wit
ours !
How many there are 'who could echo these words of Browning. They, many say to-day a God." How long ago: "How long dost Thou make us to doubt? If Thou be the Christ, tell us plainly." They want physical proof that Jesus is alive Like St. Thomas, they think they must see and feel Him before they can be quite sure, before they can say with St. Paul: "I know Whom I have believed." People who do not know Christ, of course, think
that we who profess to know Him are either hypocrites of half-crazy enthusiasts. They say, "Bring your proofs of His existence, and we,
too, will believe." And He has convinced us that He is still alive "by many infallible proofs,'" as He did
His friends in the first century. Millions of clear-headed men have shadow of doubt: "I know Whom I have believed," and they did not
sacrifice all reason and common sense sacrifice all reason and common sense
either, although it was not by reanot going to attempt to convince doubters by bringing up an array of Christian evidences. There are plenty to be had, gathered together
in handy form by many wise and up-to-date writers, but it is hard to find Christ through them. It may be possible; I don't know, but I
think they are chiefly useful to show think they are chiefly useful to show
reason that it may safely follow
the tropics, and he, for the first time, he told his wife, she said ice. When not live with such a liar, so left him. But that only showed her ignorance,
and did not make his atatement untrue. A thing may be contrary to same. Supp, and yet a fact all the been accustomed to modern years or so. He would probably be looked upon as crazy if he declared that without raising one's voice it was possible to talk to a person send a message and also possible to a few minutes. But could all the ridicule he received for believing in a seeming impossibility shake his be" know , these facts ? He would probably he might not be able to prove his statements so as to convince anybody else. So it is with Christians, they know " that sons for this knowledge are founded on experience, and are perfectiy comprehensible to other Chrlstians, but incomprehensible to unbelievers. St. Pauls words are still true: The of the Spirit of God, for they are foolishness unto him, neither can he know them, because they are spiritually discerned.'

Lord will not willingly leave anyone in the darkness of
doubt or unbelief. He still, as on that first Easter. Day, offers unmis takable "proofs" to His friends. He has promised that any man who "know." Are you willing to obey Him, even to the death, are you eager to know the truth ? Then
prove that you want to find Him by prove that you want to find Him by a real search. Study the Bible, and
read other books which tell you about Him. Go to church regularly. Perhap you think that won't do you much good, if you are doubtful about the
truths taught there, but I think you will make a great mistake if you are careless about this. St. Thomas may not really have been more skeptical than the other disciples, for was risen, their words seamed only "idle tales" to them all. He re mained longer in doubt than the rest, and for this reason only-as far as we can see-because he was ab-
sent from the Christian service on that Sunday. The other Disciples went to church, as we might say,
and they saw and believed. The


Where faith has already led the way We don't wait to understand the use of its advantages We accept as facts the apparently impossibie lighting of a room by the turning machinery with its invisible and speaking with a human voice as in a phonograph, etc. Afterwards, we may, if we like, try to understand Our Lord "showed Himself alive after His passion by many himsel prools, but He only showed hrimsel Caiaphas or Pilate. It is the same
to-day. We cannot show our proofs but they are quite convincing to us, and they are not the proofs generally ealled evidences of Christianity, wanted to send pran in the parable life to his brothers who were still in say now, '، If said, as many migh from the dead, they will repent. But his request was refused, for it
would have been useless to grant it. Why? Because it has always been true that " if they hear not Moses be persuaded the dead." As if to show the truth of these words, our Lord did raise another Lavarus from the dead. He
death and burial were well known to tion was pubpic, and his resurrec not done in a darkened room, but in open daylight. What was the re sign of repentance that they at once began to plan how they might put Lazarus to death again, because hated "Nazarene.
I think the people of this age a thing is impossible, than to say one else can feel perfectly certain of ignorant because they themselves able
as the woman who quarreled with
her husband because he said water
" Her Mother's Voice.











-

- 

.
,

 Suppose he had stayed away because
he did not believe the story of the Resurrection, would his doubts have has promised to manifest Himself to those who show their love by obedience. Are you trying that plan of
finding Him? St. John uses very plain language in speaking of those who profess to know God, and yet
disobey Him : "He that saith, I know Him, and keepeth not His commandments, is a liar." He also
says that we must love others, not only in word, but in "deed," and
then we "know that we are of the truth." Are you trying that plan
of finding Him

## " What ! if thy way to faith in Go Should lie through faith in Man

 There is a great deal of talk inthese days about ." The Unknowable God, and men excuse there ignor-
ance, and take no pains to cure it,
saying that if there is a God He is oo great and awful tood by human intelligence-and so He is. Theology is the grandest it. It seems to me that the thourh of immortal ty would be insupport able if we stopped short in ou growth and knew everything there
was to know as soon as we left earth behind us. God is infinite and we must go on learning to
know Him better through all etern ity, and yet never know Him fully " Who only hath immortality dwell ing in the light which no man cal
approach unto: Whom no man hat seen, nor can see.

I you cannot already say truly know Him as a personal friend, alyou to go on seeking, and never give up until you find Him.
God will not work miracles to force
belief not wish or intend to obey Him. He does not wish to put them into the
awful position of the devils who, as St. James says, " believe and tremselves in wichedness-sinning against knowledge. Herod was very glad to see a miracle done by Him, but his curiosity "was not gratified-the divine prisoner even refused to speak God hides Himself in thick darknes from men who seek Him only out of vulgar curiosity, but those who, a
Solomon says, seek as for silver o hid treasures, will, sooner or - God is not dumb, that He should speal If thou hast wanderings in the And finderness
poor : poor :
There towers the Mountain of the Which whoso seeks shall find, but he
who bends
Intent on Manna still and mortal ends, ntent on Manna still and mortal ends, finished, we got ourselves in whork was inished, we got ourselves in shape for
the picnic. About half-past one the
crowd crowd began to gather. There lieing
two large

A Day in June.
 Then heaven tries the pearth it it it be in Whather wor it sortly her wartur ear hays:
 Every clod teels a strr of might
An Instinct within $i t, ~ t h a t ~ r e a c h e s ~ a n c t ~$

## And, grasping blindly above it for Hght,

My Dog, Captain Cross, but with kindness he became was sleigh to the carriape shook my baby bay's
pair of shatts made, and bought han ness, and trained Captain to draw me.
What fun I had He would draw me to
school then turn Hed school then turn and go home. When
mother wanted groceries she harnessed


Maudie Henderson and Her Dog.

## Captain and sent him for them; he he would come back, and when he reached

 the gate, would bark; mother wouldcome and let him in. We used to go to Come und let him in. We used to go to
the pond; Captain would stand in front
of me and crowd me back from the water; lint whon papa wack from the
threw me 1
thems itcks in and he went in after
them them; 'twas good fun to see him stwim
and bring the sticks oute then shime himself. He carrited the mat, then shake
the office. He trome
He becane such a favorite with the neighbors that they fed him scraps of meat, and when the hot
weather came, hee got the mange and hod
tol to bo shot. Poor Cuptain, how we do
miss him! Lanstonno School. (Ageal ten years.)
$\qquad$
They were enjoying themselves as bes
they could until about three after. The prograume liegan then. We . We
liad songs and rccitations suitable tor Thpire Day, and speeches from some of Che men on loyalty to our country. The
last and best thing on the programmethe church played the piano, while
finging " © The Maple Leaf Forever mand
IU every pair) held flags in their (hand
they whould the chore them was being sung

How We Celebrated Empire DayTwo or three weeks before Empire Das
p a picnic to celebrate Empire Day. We
preparations. Our teacher went to mak


## Some years ago my papa was away $\quad \begin{gathered}\text { PRIZE ESSAY.-CLASS II. } \\ \text { from home a good deal. } \\ \text { Not wanting }\end{gathered}$ Since our late Queen Victoria from home a good deal. Not wanting Since our late Queen Victoria has been to leave mother and I alone, he bought laid in her rovel

 a Neave mother and I alone, he bought laid in her royal grave, we call the 24 tha Newfoundland dog, named Captain. of May "Emupire Day." This day will
When Duld
Toliage, it is time to thin
how to spend Empire Day
ing to patriotic holiday.
trim the everanda with bunting and flags
then hang up
Chineso lont lant
our city
Empire
D
celpelirate the great our village, we always
the notble Queen victoriais biy thown as
In the morning, we go to the village
Mirrse we have races-there are races
poys and old men-and differe
kinds of
${ }^{1}$ goo home and get our dinner. After
Cinner we went to the ball grounds to
watch the ball match between our village
and a rival town, the latter beinggame winner of the day. As soon as the
and was over, we went to the village
and bought fireworks. consistingWhen we reached home, we talkell n:c
our beloved Queen, and by that time te
was ready. The dining-room wa
was
decorated with nags and red, white
a canopy of wild
mowe
mors
like
nature they then seene
house roses.
decorated verandarer, we wet talked out on thill nearly
dark. Then there wns
citenent to get our freworks ready for
the great colehrationWe all went out on the large grassy
lawn and formed a circle. In the middlathe fireworks. Then we thought it time
Mayed the piano and my city cousin,
Althea, Mlayed the violin: my other
cousin, Hugh, played the mouthorganthis we went out and played hide-andtero
ting tired of these games, we went beck
to the tlrealworks. Soon wethe tinal. cannon, "we all we shot onf
Maple Leaf Forene, ."
went to sleep to dream of the jolly time
GLADYS C. WFrbber (aged 12 vears)
Empire Day on a Farm.
"Mamma, how, shall we spend Empire
Day this year ?", asked a bright little
girl), of nine years. "You know our
cousins, Horacece and Elsie, are coming to
spent1 the day
make it as pleasant as, possible.". Y Yes,
Eva, I
Enow, and $I$ will be thinking
about it this arternoon, now II whill make
the candy for tomorrow,
Jumped down crom the as her cousins
claimed Elay?" "Hisie. "Hide ands-seet
that ! "came in chorus stros, do play
When they were tired of this others.
room. After admiring it, they hall wey
and

had a jolly romp. This was followed
ly, a game of "tag ", in the big barn
Then came ter ats.
Tea came tea at five oclock. Arte

Rueen Victorna, during whose reign an Empire of India had been added to the
Crown, this making her both Queen end Empress, and her personal interest in which has been observed for so many years as her birthdyy was preserved man
national holiday by making it Emper

Then they all joined in singing "The
Taple Leat Forever," and "Good Sav Will came to take Horace nd Uncl home, so this ended one of the joyt ged 10 year

## With tur Flowerss

 The Asparagus$\qquad$ actiogus have no idea of the satis of these dointy in possessing al lev ing plants are not especially beauti ful, except during a period of hool foliage, is beautiful at all times. It foliage, is beautiful at all times. It
may be placed in the same order usefulness with in the same order of plants, araucarias umbrolla plants and rex begonias, but, althourh it is not called asparagus fern," semble very closely in ther does it re well-known asparagus of the the table garden. The color of the green. In the variety. . "plumosus." slender leaves spread out from th fronds, whose feathery division lacelik much finer than those of the mos fnely pinnatifid ferns. In asparagus but the branches crow not so fine spreading and drooping unt rapid table mantle of green falls about the pour often to a length of three or which pleases asparagus sprenger rem a bracket from which it aret This varicty also ny advantage of beng suited with is good. It so long as the ligh shine, but will grow just ber vithout it in a northern window get a glint of sunlight in the fore noon. Asparagus prumosus alway Asparagus will prow nicely from soed Pant the seed in shallow bexe weep the soll moist and warm. The wauls germinate in about three taken the for three or four hours in lure them when ready to small pots. and shif trom these just as soon as the roots
fill the pots five fiil the pots. Give plenty of water
put on some linuid manur weerinkling keen the foliage clean by summer, the asparagus is the better Lor being rested for a while. Simply rery should be repotted, and its water osus nons increased. Asparagus plumshould, as it grows older, be shifted flora frernleaf
$\qquad$
$\qquad$
$\qquad$
$\qquad$


## EATON'S MALL ORDER NEWS TORONTO

## Special Sale of Skirts and Raincoats

IN PRODUCING these Garments at such low prices we do not lose sight of quality, for quality is one of our first considerations. We do not make unsightly ill-fitting garments, neither do we use cheap inferior materials. In buying from us yot can feel assured and superiot not only the best material of its class that we can possibly procure. You also get that up-to-date style, perfect fit The Skirts shown here are Fancy garments so justly popular
The Skirts shown here are Fancy Tweed 2t $\$ 2.75$, Cheviot at $\$ 3.25$, and Vicuna "Cloth at $\$ 4.50$; also Cravenette
at $\$ 5.00$. Raincoat at $\$ 5.00$.



## OOK-KEEPING sataonampibit


Advertise in the Advocato

## The CENTRAL CANADA INSURANCE CO. <br> RANDON: MANITOBA

Fire, Hall \& Live Stock Insurance.

WEDDING INVITATIONS ANNOUNCEMENTS ATHOME CARDS
 rame london pta. \& Litho. co. Advertise in the Advocale

## TEACHER\&PUPLL

Programme of Dominion Educational Association

The Dominion Educational Association
will meet in. Winnipeg, July $26-28$, and a very interesting programme, a copy of Which is given herewith, has been ar-
ranged. It will be noticed that all branches, including elementary education, kindergarten, higher education and in-
spection are dealt with. It has also been arranged to hold exhibits of school work and school supplies in the same
building as the meetings. The programme is as follows:
Tuestay, July $26 .-2.30 \mathrm{p} . \mathrm{m}$. , meeting of directors: 8 p.m.., address of welcome, Premier F. G. Haultain, Regina, and re-
ply by the President, D. J. Goggin, M. Cresent-day d.C.L., Toronto ; President's address, Present-day problems in education;
National education, Rev. N. Burwash, S . T. D., Ll. D., President Victoria University, Toronto : The educational outlook, of Education, New Brunswick. in education, S. E. Lang, M. A., Inspector of Schools, Virden, Man.; Some commer-
cial aspects of education, w. S. Ellis, B. A., B.Sc., Principal of Collegiate Institute, Kingston, Ont.; The administration
of rural schools, J. A. Calder, B. A.,

 cation, Rev. Lewis Dome rummond, S.J., St. St.
Boniface College, Man; National religious education, Rev., Thos., B. Kinal Ratrick, M.
A., D.D., Professor of Theology A., D.D., Professor of Theology, Manitoba
Coblege, Winnipeg ; address, Hon. J. W. Longley, Halifax, Nova Scotia.
Thursday, July cies and defects of ontario educational
system, Jon sister of Education; Consolidation of
ist schools in Nova Scotia, A. H. MacKay,
LL.D. Superintendent LL.D., Superintendent of Education, Nova
Scotia: $\mathbf{O}$ Our educational duties to immi-
 ness meeting. 8 p.m, recoption at Govi-
ernment House hy His Honor Sir Daniel ernment House hy His Honor Sir Daniel
and Lady Molitilan.
Friday July disposing of resoutions : election of of offi-
cers ; selection of next place of meeting: meeting of new board of directors.
HIGHER EDUCATION SECTION. Prosident, Professor John Squair, B.
A., University of Toronto ; secretary, $G$. U. Hay, Ph.B., St. John, N.B.
Tuestay July $26 .-3$ p.m., President's
address. address;
committees
 school programme of studies, John
IHendersor, M. A., Fin Itenderson, A. A. Frincipal Collegiate
Institute, St. Catharines, ont.; Education
in its relation to social life, George $H$. Loce, Ph.D., Dean of the School of Edu-
cation and Professor of Education, Chicago Univerity ; Pow, fors, furlows and har-
fows, Professor A. H. Young M. Trinity University, Toronto.
Thursday, July $28 .-2$ p. m., The
 high school curriculum in its relation to
the adolescent, George Young, BA., principal of schools, Portage la Prainie, The
relation of geology to the teaching of relation of geology to the teaching of
georaphy, P. Hy Coleman, Ph.D. Uni-
versity of ororonto : report of committees.
Inspection and training.
President, Dr. J. M. Harper, Quebec President, Dr. J. M. Harper, Quibec
eeretary, D. McIntyre, M. A., Winnipeg.
Cwest, Tuestay, July $26=3$ p.m., Presideg.
Iddress ; organization : appointment

an agency in public education
Bryan, M.A. Inspector Mryan, M.A. Inspector of school
gary ? Three years of Mclonald training schools, ©. Johansen, director

of manual train'ng, Montreal. | of manual training. Montreal. |
| :--- |
| Tharsclay, July ${ }^{28 .-2} \quad$ p. m., Some |

 School, Truro, N. S. S. Are the training
schools preparing their sturtent schools preparing their sturdents to mee
actual conditions? Principal Normal School, Regin.
Domsie,"
a study of Scotish eduation
 School, Toronto, Ont, report of com-
mittees; elempntary fonection
President Erneot Sation sectio

 | Tuestay, July $26 .-2 \quad$ p. m. . . Nature |
| :--- | address ;

committees

## committers. Wednesday

Study in oity July $27 .-2$ p. m., Nature
 Rational memory training, A. S. Rose,
Inspector of Schools,
Brandon, Man Parent and teacher, Miss Agnes Deany
Cameron. Princinhi S Victoria, B. C. Culy
Thursday, July $28 .-2 \mathrm{p} . \mathrm{m}$., Music

 ing in School, ReqHna; Physcal train
ingyaian schools, N. J. Jewet
Physical Instructor Physical Tnstructor in Y. M. C. A
Winimepg;
report of committees ; eled innipey ; rep
tion of officers.
kindergarten section
President, Miss M. McIntyre, Toronto
 Cddress, organization : Appointment Wednestay

 Men, Toronto Normal. Schol, Natury
study in hee kindergarten, Miss E. Cody Normal School, Toronto : The kinder
garten, its place in a child's education Miss V . Alyesworth, Chatham,

The Dictionary in School. Pupils will concult lying on their desk when they dictionary think of going to the unabridged dic speak correct English, it is is write and portance that he should acquire the ha bit of going to the dictionary for the
spelling, pronunciation and exact ing of words. Frequently pupils go about looking up a word in a very awk-
ward manner. It is a good plan to write the difficult words of the lesson on
the blackboard, and then the teacher and class look up each word together, the
teacher explaining the ways in which word can be most readily found. Fre in understanding the
given in the dictionary.

Put the Bad Boy in the Back Many teachus Seat.
putting the bad mak the mistake of where all the other pupils can see his
supposedly smart antics. Most boys get
tired tired doing wrong if there is no one to
take pleasure in watching them. With the bad boy in the back seat his bad expupils. He dos not have the same
chance to attract attention. .arn- Turning around " has no pleasures for him.
he has a good model in front of him He has a good model in front of him.
He will possibly have the idea that
this teacher is estimatine him at his therHe will possibly have the idea that
this teacher is estimating him at his true
worth and can trust him

## FARMERS!

Why not save the enormous profits that are being made by the middlemen and buy your goods direct from the manufacturer

## The Farmers'WholesaleBuyers Association of Winnipeg, Ltd.

are now operating throughout Manitoba, opening branch stores in all thickly-settled districts, and will furnish you goods at wholesale.

We charge you a small annual fee to buy from this Association, saving you many dollars that your are now paying the middlemen.

If our promoters are not operating in your district, and you have not had an opportunity to have our methods explained to you, write for particulars. No matter what your wants may be we can lay all goods down to you at wholesale prices, and much cheaper than you can buy as individuals.

We are incorporated under the laws of Manitoba, and our capital has been placed at $\$ .01,000$ for the present need of the Association.

Address all correspondence to
The Farmers' Wholesale Buyers'. Assn. 416 McIntyre Block, WINNIPEG.
F. J. WEBSTER, Pres. and Gen. Mgr. M. O. VON HASSAGER, Vice-Pres.


## GRAIN <br> Have your grain handled by a com mission flrm for best results. <br> CENT PER BUSHEL ON CAR LOTS te ON 5,000 BUSHELS OR UPWARDS FOR BUYING AND SELLING FUTURES MANITOBA COMMISSION COMPANY, Limited, WINNIPEG.

FLOUR
COLOR




[^2]The Farmer＇s Sphere． Let others seek the city＇s mart，
The fact＇ries＇din，the noisy The fact＇ries＇din，the noisy ways，
For me the country＇s good enough， The croaking trog within the pond， The crowing coik，the lownng kine．
Compared to thirdrate vocalists， In lieu of hieher svmphnnie I hear the wind sweep through
And erst the music of the spheres The picture galleries you boast，
With masterpieces old and Cannot momparee with views I see The rolling hills，the fine old treses
Tho
souveclad
mountains，
solemn Each secene，I＇m told，was paited by
nd rarest blosspms at my feet tread upon them every day．
The wealth of all the world is mine Why care tor siver then，or gold
o braatese the ozone of these fields Is wealth untold． To trap in tall the sow the seod． To reap in fall the ripened grain
Hy lot it is to give the world

## For Tender Feet

$\qquad$ up to be．When the soles are worn
down，paper thin，there is no more pro－ lific source of callous places under the ball of the foot．Cobblestones，hot
concrete，inequalities in the pavement－ every trining oircumstance that，were the feet well shod，would be passed un Chrough the thin soles． Cheap shoes are quite as bad．
sole soon gets full of humps and $r$ it warps，or sometim and hollows， deep ridge across，producing immense dis comfort to the foot inside．Sometimes
good，perfectly new shoe will produc a welt across the foot above the toes． the shoe itself，but the result is pretty much the same in either case．If the shoe store or cobbler cannot remedy the
trouble，try taking a small piece of soft trouble，try taking a small piece of sof as possible，and place it inside the stock－ ings over the welt． after one has walked or stood a lot，re lief may be obtained by plunging it for a few minutes in hot water in which a
handful of salt has been dissolved．The cool the water off gradually till it is
quite cold．Moderately warm wat which a little ammonia has been added is also immensely restful to tired，hot The nails of the toes stand in just as
much need of careful systematic much need of careful，systematic cutting
as do the finger nails．Some people，
you know，let them to till they wear you know，let them go till they wear way they make stockings Cut the nails twice a week regularly and cut them straight across，not rounding． To allow a nail to grow long is to tempt
Providence，for it runs the risk of being pressed into the skin，and it may being pressed into the skin，and it may take
you weeks to overcome the pain and
trouble caused by that trifling neglect．

## Humorous．

## More men than horses have been spolly

Applicant－＂Oi＇d like a job wid y There isn＇t much doing just at presen ． don＇t think I could keep you busy． Applicant（reassuringly－＂Indade，sorr
it＇ull take very little to kape me busy．＇

Teacher－
affection ？
Class－＂

OUESTIONS AND ANSWERS Ist．－Questions asked by bona－fide subscriber
lo the Rarmer s．s Avocate＂are answered in
thit department free
ind．－Questions should be clearly stated and pain whyritten．on one side of the paper ont
and must be a comparied by the full nam
and address of the writer．
 Miscellaneous．
milking machine wanted I am under the impression that I hav
seen an an and anerisement somewheres or
 save time where a number have to
milked together．Do you know if such machine is on th eould I obtain one？
Fort Saskatchewan，Alta Ans．－A milking machine was devise cessful．The Guelph College people har one installed，but gave up the use of it
later on ；the rubber parts were later on；the rubber parts were hard tid
clean－the machine used was the Thistle
Invent Inventors have been continually working
on this problem，but so far with indifferent success．
HARROWING WEEDS ing out a to tield of wheat which is turn－
on fall plowing．What．It was sown
on whan should take to get rid of them，or is there any ？ as the ground is dry enough．Kindly Elm Creek．
Ans－You are on the right track soil is dry on the surface is the only
effective way of killing young weeds Wholesale in crop．The sooner the
harrowing can be done after the weeds
appear， appear，the better，as it would be very
little use after they reach more that
two inches in heirht two inches in height．A light harro
is always preferable，as it causes loss is always preferable，as it causes less in
jury to the grain crop，and is sure to heavy enough to disturb the wee
plants．It is well to bear in mind，to that the harrowing has a beneficial
effect apart from killing the weeds．By stirring the surface slightly the crust i
broken，and a light mulch formed，whic assists in preventing evaporation of the
moisture in the soil．

## Veterinary．

## What CALVES SCOURING

 keep them from scouring？We feed skin Carnefac＂or＂International Stock six weeks，we feed half skim milk andthe other half new milk．Have been
feeding under the feding under the same manner trefore
but calves have never scoured．We be lieve it must be because we are using
separator milk，only having got sepa Carlyle．
Ans．－There are many causes to account sor scouring in calves，especially such as
are fed on separator milk．The best results with separator skim milk are ob－ seed or ground oats with the hulls sifted milk，and not frequently enough．Milk
should be fed at the start three times dany，and the amount for each feed
should start at two to three pounds，
gradually increasin， about twenty－four pounds is given daily
（eight pounds each feed）．（iround flaz eight pounds each feedl）．Ground flax－
seed can he added to the milk，a talle－
spoonful heiny a suficiont start with，Gradually increasing up to
half a pound daily．When calves do
poorly on skim milk，the results are chargeable to the aluse of that feed．
Too much milk，infrequent and irregular feeding，milk too cold for digestion，and
sour－feedine pails，are the causes of nine tenths of the trouble．See previous
issue for remiecties in the form of drugs
Prevention is however Trevention is，however，better than curc．
Limewater can lee given with，profit in
such cases－a cuplul of the clear liguid

## True Philanthropy

Gounlau．Cilinturs Smumb

## Gourlay Pianos

THOUGHT IN PIANO CONSTRUCTION


Gourlay Pianos are built in our own factory under the personal carry each piano through every process of manufacture from the drying in the kiln． a tinished instrument，bearing not only our firm name cast in the plate and the＂Gourlay＂name and trade－mark on the name board，but pianistic genius in the originality，richness，and approximate perfec tion of its musical scale，as well as in the solidity of its construction． symmetry of its design，beauty of its touch and tone，and elegance of
its appearance and finish．

Are Not Merely First－class， They Are Something Better．

There are pianos，first－class in material and workmanship，whose construction and design，inside and out，present no improvement over
what they contained years ago．We offer something more－we offer what they contained years ago．We offer something more－we offer materials and workmanship ty of excellence which result from their being constructed in an atmosphere of progress， and the same spirit which has cemarkable excellence is subtly expressed all through our work；a touch better
than mere first－class．For hese reasons our pianos a etter bargain，than oth trot－class makes．This is mean it．We have chosen making them positive ind making them positive and
emphatic，and we desire that our pianos be tried by the
standard we have here ex－
pressed．
ments at our warerooms or at the vevarerooms ins those who have the agency of the Gourlay
Pianos．If there is no Pianos．If there is no agent in your distriut
we will send you nwo illustrated catalogne and
inunte yon prices divent BY OUR NEW PAYMEAT PLAN anyone in moderate circumstances may own a
Gourlay．We ship to any point in Conade
subject to apmor sreight if not satisfactor！！pay the veturn

## Gourlay，Winter \＆Leeming <br> 188 YONGE STREET，TORONTO

JUNE 29， 1904
Lost，Strayed or Stolen．





 ESTEVAN IMTOUNDED． buckskin horse，hranded running $H$ on right front shoulder
Gray horse，
foot，no brand．
Roan horse，brander hind
right shouder－running H on
Roan mare，ears crop
right front shoulder
${ }_{H}{ }^{\text {TH Wo dark }}$ on right fray horses，
Mousecolored mare
lranded running $\underset{H}{H}$ cars cropped，
shoulder． Two sorrel mares，branded running H
on left thigh． Bay horse，
thigh．R．Perry，poundkeeper．
MCLEAN，Assa
spot on face，white on hind hars，narrow tail，brand invisible，shod on front feet． $\begin{aligned} & \text { halter on，medium weight．} \\ & \text { Bay } \\ & \text { mare，large }\end{aligned}$ white spot on face medium weight，shod on front feet，hal hal Black horse，white spot on face，hind
legs white legs white，feet shod，fore legs cut by
barbed wire，halter on．George Fischer $(34-17-16 \mathrm{w} 2)$ ． BALGONIE，Assa．－Black horse，white
stripe on face，branded C on left shoul－ der，hind feet white，feet shod．
 feet white．． white feet，colt at foot．${ }^{\text {and }}$ R．M．Flliott QU＇APPELEE，A ssa．－Since June 4 th 1904，brown colt，two years old，white
spot on forehead，black mane and tail brand rasembling 3 P ${ }^{2}$ on left shoulder．
Isaac Hardy Isaac Hardy（N．E．34－17－15 w 2）． pony mare，three years old，whito face hind feet white．
Liight pony mare，about five years old
white striee down tace left shoulder and C on right shoulder ${ }_{\text {s．Small white mark on left front foot．}}$ ． mith ．
 colt，one year old，never hoen hany
broken，no brand or marks． Cronen，no brand or marks．Herbert
Minaker S．E．$\ddagger 2-3-4 \mathrm{w} 2)$ ． SWIFT CURRENT，Assa．－Roan steer， three years old，branded inverted Uu
combination on Hing $P_{\text {，}}$ small circle combination on left hip，enlarged left hind foot．
 orde hranded ${ }^{5}$（reversed），${ }^{3}$ with over on right ribs，heavy in calf．
Red and old，dry，brand resembling P ，small circle，combination on left hip．
Red heifer，one venr
Rrand resembling M，or broad arrow left
ribs，short tail． poundkeeper．
MOFFAT，Assa．－Since May 31，1904， $\begin{array}{ll}\text { black } & \text { stallion，about } \text { two years old } \\ \text { small } \\ \text { white } \\ \text { spot on forehead，weight }\end{array}$ $\begin{array}{ll}\text { about } \\ \text {（s．W．} \\ \ddagger 100 & \text { pounds．} \\ \text {（15 }\end{array}$
$\underset{\text { CALGARY．－Dark bay mare，} 900 \mathrm{lbs} \text { ，}, ~}{\text { LOS }}$ branded B，foal four weeks，barbed－wire
cut on leg below right shoulder；also white horse $1,200 \mathrm{lbs}$ ．，quite old．Sec． $\$ 5$ for correct direction
cutt，Box 426 ．
balgonie，Assa．－Since about Marrb
1st，1904，small．thick－set roan，pony， black points，aged；bright bay pony， animals had halters on when last seon A suitable reward will be given for in－
formation leading to the recovery of the Cormation leading to the recovery of the
above animals．
Messrs．
Grady
and KATHRINTHAL，Assa－－Since May 1st， old，branded mare，eight or mine years
round top
chow，both sorrel yearling stallion colt： 1,100 lbs． gelding，eieht or nine years old，un－
branded，white star on forhead，weight
about 1,200 ons．，stiff on front jegs： about 1,200 lbs．，stif on front legs：
black mare，about six years old，whito

HE FARMERS ADVOCATE


STYLE D－Walnut or Mahogany．
信 Repeating Action，with Nickel－Plated Brackets and Rail；Improved Iron Frame；Compound Sec tional Wrest Plank；Continuous Nickel Hinges；Automatic Music Desk；Solid Carved Panels and 3 Pedals． Height， 4 ft． 6 in ．

Width， $5 \mathrm{ft} .11-2 \mathrm{in}$.
Depth， 2 ft． 3 in
ABSOLUTE．WARRANTY FOR FIVE YEARS．

Why buy a cheaply－made Piano at a similar price when

## Youl can buly a Pialno $\begin{gathered}\text { of the reogntred } \\ \text { qualty of the }\end{gathered}$

 MENDELSSOHN
## 出 350.00

．We further make

## SPECIAL OFFER

cash payment to November 1.
Thimliz Over This Offer and Write THE GRUNDY MUSIC CO’Y

SOLE NORTHWESTERN AGENTS
正 20 Maim st．
WYINNIPREG，MEAN．



 heavy foretost

 dalles trime hair wif 904． 85 reward．
$10-18-10 \mathrm{w} 2$ ）．

To extend the time for the cash payment to November list next，should you desire it，
without any additional charge． 1
Moflat．



British Columbia Farms


The Settlers' Association,
trade note.



## ORS

rmpeth
two ol aplicity ed ball NAL is venient women mel.

AL IN
Nal, sena
Tree foo

MAN.
ee!

Ivance
WOrd
vous debility restored, and ong men, and o become so? of Electricity ain upon the from varicoleas; fear to
retful ; avoid aself to face apply Elecoms vanishevery weak is treatment manly men an ever. In vill continue
e, say for 60 eal is ended.
elts on same elts on same vy of many little books

Ont.



## DE LAVAL SEPARATORS.



THE KIND THE CREAMERYMEN USE.

To Save Money in securing Cream, you must use a Separator.
To Save Money at the Churn, you must have Thick Cream
To Save Money in Transportation, you must ship Thick Cream.
DE LAVAL SEPARATORS, and no other, will produce a high test Cream,
without loss in the bowl and skim milk.

## THE DE LAVAL SEPARATOR CO’Y

 $\qquad$ 248 MoDermor Avenue,
Walworth-Ralston Co., Vancouver, British Columbia Agents.
A Revolution in Western Canada | Hickoory Herefords,


TAYLOR KNIFE HEAD

F. H. BRYDGES \& SONS,

A Live-stock Market vow Essabulisibd at Calgary.
Sompond

every facility for stockmen and buyers to get
together
Feoponsibio men in charde day and night.
Feed of all kinds on hand, and supplied to


Consign your cattle or horses to our zales.
Send for circulars. Correspondence solicited
The Alberta Stock-yards Co, Ltd,









 Hole
 wm. beresford, Calgary, Alta
simproun Shorthorns



 R E V E Re


TRADE NOTES.
HARRIS, SCOTTEN CO.-It is apparent to any grain producer that one of the
most satisfactory ways to dispose of
grain is to consign it direct to some most satisfactory ways to dispose of
grain is to consign it idirect to some
local firm. In this way the profits of local firm. In this way the profits of
the middleman are elimated from the
transaction, and there is at least that transaction, and there is at least that
one profit. saved. You are absolutely
certain of getting local prices, for the certain of getting local prices, for the
transaction is an open one upon the board
in Winnipeg, and the daily prices are recorded by the Secretary of the Grain Ex-
change. It is an economical method of doing business, and a moneymaker to you.
Write at one for full particulars to
Harris, Scotten Co, Box 671, Winnipeg.

```
MREE TO HORSEMFN.-One of the
```

cleverest paniphlets on the care of horses
is that issued by W. F. Young, P. D. F.,
Springfold Mes.
Springfield, Mass., U. S. A., proprietor
of the well-known remedy, Absorbine.
Indeed this












The Bray's Dispersion salle.


CLYDESDALES,
SHORTHORNS,
Yorkshires and B. P. Rocks 8 young bulls ready for service, some extra
good ones in this offering; will price an ay
down for next month. Boars ready for service. Sows old enough to breed A choice lot of
spring pigs. Our yard of Rocks is yerv choice. Carman and Roland Stations
m ANDREW GRAHAM, Prop.


SCOTTISH SHORTHORNS.
 Sill

JUNE 29, 1904
Bray. miaportion sate The total for 48 real handsome sum of $\$ 6,500$, or Tor bulls and cows of $\$ 139$.
The prices and names of purchase
were as follows: Cows.
Julia 9 th, 3 years, and calf, 4 months ;

Ruby Derocher 2nd Palmer, Macdonald ... ................ Bluff fiogene 2nd, 8 years. Stopten Ro9s of Prairie Homer seans (ilen Campbell, Gilbert Plains ... | Portage la Prairie |
| :---: |
| Bonnotel, 5 vears : Jas. Lytule, Hith | Bluff

Minie Warrior 5th, 8 years; K. Maiden Star 4thatd Minnie Blyth Ruby Derocher, 7 years; E. Muir, Ruhy. Derocher 3rd, 3 years ; Capt.

THE FARMERS ADVOCATE


It Contains 183 Large Engravings
 We will mail you this book, absolutely free, postage prepaid, together with a large colored lithograph of DAN PATCH.

INTERNATIONAL STOCK FOOD CO. TORONTO, CAN. ital paid in, $\$ 2,000,000$. Largest Stock Food


TROUT CREEK SHORTHORNS

SPECIAL OFFERING
Two imp. bulls with superio breeding and individual merit Also a few imported scotch
heifers and home-bred bulls and
heifers JMES SMIT M. D.
JAMES SMITH, W. D. FLATT,

SHORTHORNS
MANITOBA'S LEADING HERD
10 YEARLING BULLS $\begin{gathered}\text { A mion ong } \\ \text { whit } \\ \text { and 2nd rize winners at winnipeg. } \\ \text { hist }\end{gathered}$ 20 VIGOROUS BULL CALVES

 FEMALES, ALL AGEES Sired
Nobleman (imp.) and Topsman's Doke
Older females in calf to Pilgrim (imp.).


## J. G. BARRON, Carberry, Man.

## hawthoin bank stock Farm

friend seconn in whone beside to tinveect the stock. The lot is composed of 7 SHOOTHOKN
 nd all of Craick thank breeding and most of the "opular familles in Aberdeenkhire ant EGGS from Plymouth Rock poultry, frit.t-chass stork, for sale at 8.50 per setting

## JOHN GRAHAM

Hawthorn Bank Stock Farm, CARBERRY, Man
ADVERTISE IN THE FARMER'S ADVOCATE


Flrst-
class Shorthorn Heifors For ${ }_{\text {Sale }}$


arthur Johnston, Greenwood, Ontario Sunnyside
Stock
Farm. JAMES GIBB, $\begin{gathered}\text { Brooksdale } \\ \text { Ontarlo }\end{gathered}$


MAPLE LODGE STOCK FARM, 1854 Shorthorn Buils and Heifers Leicesters.
 Wim A. W. BMITH. Ex coilen typo and qualitb SHORTHORNS

Some extra good young
bulle for sale.
Catalogue Jонк OLANOX, Managor. H. CARGILL \& SON
OARGIL.
ONTARIO. T. DOUGLAS \& SONS, Brempres Shorthorns and Clydesdales 14 S5 Shorthorng to geleot, from, Preeent offering:




[^3]THE FARMERS ADVOCA'TE


DISPOSE OF YOUR BEEF thIS YEar THROUGH
H. A. MULLINS, \& CO.
Live-stock Commission Salesmen
C. P. R. Stoch-yaris, Winulipeg. Ranchers and Live-stock Dealers,
consider your own interest sand get Sear. The success of our business de
pend pends entirely upon the results we
secure for Jou, and every efflot will be
put forth put forth to oblain top prices.
We bave numerous inquiries from exr orters in the Fast who wish to pur
chave. and th it will be to oour advantar
1o send us word what cattle you have o zend us word what cattle you have
to dispose of this year. If you have
good catte are good cattle, arrange to ship early and

##  <br> is the job of shaking down <br> With a Sunshine Furnace you stand up and oscillate a gently working lever that a child could handle. It's so easy you won't believe it, if you've been used to the common back-breaker <br> And the Sunshine is a hygienic, coal-saving, furnace ought to be. <br> McClary's <br> London, Toronto, Montreal, Winnipeg, Vancouver, St. John, N.B.



## Ogilvie's Ayrshires

prizewinners at the leading shows. The cows are imported from the best Scottish herds. Imported tion, and imported Black Prince, champion at Toronto and Ottawa, 19013, $\xrightarrow{\text { Robert Hunter, Manager, Lachine Rapids, Que. }}$



## Maricocelo

Gurred to Sta Hydpocele Mo bumborpin Hydrocele \}uthio

## 








In answering any advertisement on this page


To the Weary Dyspeptic. We Ask this Question:

Why don't you remove that weight at the pit of the Stomach?

Why don't you regulate that variable appetite, and condition the digestive organs so that it will not be necessary to starve the stomach to avoid distress after eating.

The first step is to regulate the bowels.

For this purpose
Burdock Blood Biters

## has no Equal

It acts promptly and effectuall and permanently cures all derange ments of digestion. It cures Dys pepsia and the primary causes lead ing to it.

## The CENTRAL CANADA

 INSURANCE CO,BRANDON, MANITOBA.
Fire, Hail \& Live Stock Insurance.
JERSBY CATTLE \& Reg'd C ITSWOLD SHFEP 14 months and 8 months. Also some very fine
ewes. ERSE Y For quick buyers, we are going to ERTEY sell 1rbuns and 25 females. Owin heifers coming into milk, we make the abov


## YORKSHIRES?

We have some young Yorkshire boar and sows by our new boar, S. H. HAL and shall be glad to quote prices. We
have also some good young Shorthorn
hull
Walter James \& Sons,
MOUNT FARM BERKSHIRES
CHOICE-BRED STOCK
PAIRS SUPPLIED NOT AKIN
Inspection requested, and correspondence
and promptly answered.
C. G. BULSTRODE,

ENGLISH BERKSHIRES and SHORTHORNS,


PART I.--Januapy 6th to June 29th, 1904

Bees, geting started with …….......... 12
13ees, cost of
Bees, bringing them out of the cellar 4 Bees, outdoor and spring manage-
ment of Rees, do not let them starve ........... 835
Before the meets the flower … 651
 Cellar within a cellar....................................
762
Clipping and seraping Combs ............................................. 541

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Butter, water content of ……........................ 102
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

$\qquad$
$\qquad$
 Hog-fence, build a portable ……......... 6 Humus, keep it in the soil .................. 649
Ice, harvesting it ..................... 171 Ice, packing
Implements on the farm
Implements, accessory
Inspection of grain, Dakota ....................... 131

Lime kiln, an inexpensive

Light, let it in ..................................... 98
Lumbermen (13. ©.) state their cas. 98 Mail delive
Machinery,
Mangel, dairymen should prow the......578
Mammoth clover at lsandon Mammoth clover at Shilson
Manure, care and application of .......mo Manure, applying ......aciai......
Meat, maturing for home use .........388
Member of the M. A. C. Advisory Board,
Millers dissatisfied in Ontario ........... 169 Millet, a useful crop
Mustard, spraying for …....................... ${ }^{760}$

New variety, making a choice of a...... 500 Nurserymen, why not Canadian ?....... 539 Oats, will frosted ones grow? ?................. 501
Oat, a new
Oat-crop neglected, the ...................... 687 Oat-crop neglected
Our London letter
 Pasture, oats, rape and peas for..........538
Perennial sow thistle ...................86 Pickling grain, for ............................. 539
Piggery plan of J. E. Brethour's ..... 100 Piggery
Plow, investigntions with the …......... 902 Plows and their uses ........................... 426 Plow, the breaking
Plow, the breaking ....
Plans for houses, prize
Plan of A. B. Potter's housc, Assa..... 279
Dan of barn …........................................4.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 'otatoes for profit …...............................614

 l'reston wheat ..............................................................
P'urple larkspur
Rancher vs. settler
Rape......................... 171
Rape, at good word for ............. 206
 Report, Department of Agriculture.... 540 Roots, many with little work ............22
Roots, and potatops, prepring for...is7
 Rye grass for feed .............................. 99
 seed, the utillty of changing …...........327
Secds and seed-testing ................. 389 Seed, pure ................................................. 171
Seed, a demand for good ..............
Sced grain, growing ....................... 169 Shows. fawnes attractions at ...............31:3
Siloing corn and chowe in B. ©. 9013
 and wheat growing ….................... soil, when is it fentitur) ................ doil gospel, a new

 Duty on woollens, opposed to ..........726 Stock judging at 13ranton ............. 69


$\qquad$
$\qquad$
$\qquad$

Summer-fallow, a substitute for $\quad .0,889$

sugar beets. water and tillage in cul-
ture

Sugar beets at Oxnard …………....................32
Tanning skins with the hair on ....... 169
Testing farm seeds
Test grain for seed …..................... 100
Telephones on the farm …......206, 539
Telephones on the farm ......................... 722
Telphone posts, cheap
Thawing out the pump
Tillage, the ob...........................................
Tillage, the object of ………………....... 135
Tires, experiments as to width of....... 903
Trees, how they breathe
Turkeston alfulin whern it comes inum 501
Turkestan alfalfa, where it comes fromen
Grain-growers Asociation, Manituba, 69

Mans and....................... Veterinary examination of southern ${ }^{69}$
(ram-wrowers, strmuth in Territories. T0) Warning to stallion owners ............... 908





Weeds, killing inl wat and fences.......903
Weeds, kiling ill wet weather 813
Weeds, the, what shall he dome? 83
Weeds, the dancer
Weeds, the danger period from poison-
ous
Weeds, difterent classes of
Weighing small artacte..............
170
Wheat bran, a noted agriculturist's ${ }^{\text {B4 }}$
Wheat rates, the miller and expert ... 168
Wheat, will it germinate? …..........50
Wheels of wagons ................................. 275
Who developel the country?
Wild wats, killing i..........................................
Winter Fair, Manitoba
FIELD NOTES.
Advisory Board fur College ......581, 764
Advisory

Agricultural society, Morthen ……...... 16
Agricaltural Socicty. Dauphin …........ 16 Nationad Lixwastock convontion …...... 392

Caticultural socicty, Carthery …..............
Agricultural Socicly, Hartney ……... 1
Agricultural socioly, Medicine Hat.17, 68
Apricultural society, Otelselcy …........106
Alfalfan clover at Lucthlrinke.

-
Beri-ring shares anc.a........................ 391


Bundert and tariff, Canadian …....619


Catllemen wita

| Chanadian Sired prowers' comvention. .911 |
| :--- |
| Chilliwack |

Chicken mite
Clydesdalo 1 ssociation
'lydestale Association, ammal munet. 247
ing ............................................
Gmmitten on Agriculture, Mamitota 111


horses.

Abuses to which horses are sulbjected.
Tludson's Bay Railway ............... i40 taught to dricic................. 16
Jersey Breders :anmal meeting ......2st Big returns from the advertisement.. 537

acombe district Candian Stallion Show ….................... 386
Lain insuramee, one farmers opinion 654 (anadian Stallion Show .a............... 386
(Threk rein, aluse of the ………….... 862


Mill:, Dr., for Railway Commission... 141 Comfort for horse brecders............... 575
or .ie...........6, $241,464,575,830$
Coa-tar dips



| Thismate of mares and stallions, a |
| :--- |
| serious |



| Miarrhue in foals ........................ 790 |
| :--- |
| lraft horse, development of the 95 |

$\begin{array}{r}204 \\ . \\ \hline 386\end{array}$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

French drafts … ... ........................................... 900
French Coach hors.

(ialled shoulders. to prevent ... ......... 498
lempe losses .....................c5: (imnerat-purpose horse, what is a
(ienerat-purpose horse, the ……........... 829

| Hackneys, Rawlinson Bros. |
| :--- |
| Hackncy, and....... |

the mission of opinion re
Ctackney stattion, use of hy farmers. 830
Hoofe, the carn of monhod …........... 862
Hows the where it 131
Horsuchowine (illustrated) ……........ 131
Dairymen's and I.ivoratock Assoriatjon,
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Inbreeding, when advantageous ......... 424


Nimerer in insem -

$\qquad$
$\qquad$

Chicken-raising and the poultry ex-
pert $. . . ~ . . . ~ . . . . . . . . . . . . . . . . . . . . . . . . . ~$
Chickens, a new life-preserver for the. 834
Chick-feding. up-to-date methods in. 834
ChickensChekens, weammg the ................. 906
Clucking hwos, to break up ............ 666
Colds, fowls haveDenmark's egg trade …..................... 869

| Ducks and winter laying ... ................. 138 |
| :--- |
| Duck |

Kating "ggs
Eating ckgs.
aps cu ..... 540
fige production in poultry, increasing.Rggs, fertile …….................................... 428lige business in Ireland, co-operative. 906xperiments with poltry, some ...... 651Patten your chickens before market-
ing ................................................... 103
Freding hons, how much ..........
coster mother, the ......................... 31 .
Hatching smason, the ........................ 540Henhouse, amount of glass in ............... 10Illustration poultry stations ... ......... 1
Incubator, hatches, good and bad ...28
Incubator on the farm, the $\ldots \ldots \ldots . . . . . .281$
Laying strain, producing a ….......... 137IObject tess
Pigcon, encourage the homing ..... $\ldots 281$
Poultryman, disappointments and........ 504
roultry experience ... ... ....................... 356Poultry products, a comparison of ... 172Poultry-raisingPoultry, great demand for ……....... 66
Poulty
Association, Manitoba 137
Poultry
Show Poultry Show, Brandon ..................... 1381 Poultry Show, Strathcona ….......................... 579 Proultry pedierrecs Poultry will pay on the farm …....... 762
$\qquad$
$\qquad$
$\qquad$
$\qquad$


CONTENTS FOR 1904.


## Good blood and experience in stock-

 (irass a tribute to ...................................... 864
try breeder on
$\qquad$ Herlivorous inimals require salt ..... 10 Hereford, a good word for the ......... 425 Hog-raising will way in the N.-W. T. 688
Hogpen, dry one wanted Hogs in Canada
Hogs, does it pay to raise?
Hogs, breeding and raising …… $\quad 20$ Hogs, feeding and growing ................... 312 Hogs, will grow on rape ...................... 53 Hog house, a cheap
Holsteins. how rec...................
recorded in Canada Inbreodiner-I ine breediner 68
$\qquad$
$\qquad$
$\qquad$
$\qquad$ Live-stock sales in England
Lord Roscberry as a Feeder Lord Polwarth on selection and matLong ion lettur ……................................132 Manitoba Stockmen's convention..........

 Mange and dippin! Marketing cattle, yard and commission
charges charges ......................................... 93
Marr, death of Mr. W. S. Marr, death of Mr. W. S. ................ 93
Medicine Hat stockmen go to school... Milk fever, 351 ; theory and treatment of, 466 ; prevention of ................ 86.1 Montana is freding sheep ...
Money-makinte meat shous Money-makine meat shops .....................6i6
Mutton, finishing on pulp ............. 346 Our Scottish letter ...9. $133,168,425$ Oxygen treatment, the $5 \overline{7}, 64 \overline{7}, 791,901$
$\qquad$
Pedigree certificate, some opinions of
the extended form of
Pedigree certificate, extended form at
proved of ...............................................
Pincher Creek stock shipments

| Pigs, breeding and feeding ..................... 284 |
| :--- |
| Pigs, |

Pigs, crippled ............................
Pigs, disappointment in raising
Pigs, disappointment in raising
Pips, care of young
pirfeceding and rape
rigpen front
Trize-list, Dominion Fair …….................. 864
I'rec-list, Dominion Fair ………....... 664

Pure-bred cattle, buying .....................886 Quarantine rules …......................313
$\qquad$
$\qquad$ Range products and transportation.... 10
Rancher vs. farmer ................... 465 Range cattle prospects ........................ 684 Kape for swine Breeders Association -11 kecords, pure-bred live-stock .............. 132 Registration of pure-bred cattle.......... 576 Registration of pure-breds in Canada. 901 oots and potatoes a desirno come 465 Sale. Shorthorn, Birmingham not favorable to …......................... 719 Scours in calves ......................... 538
Scottish fecders want Canadian catle. 204 Separator milk, feeding it.................. 465 Shipping and marketing live stock ..... 719 Shecpmen, Territorial, get after B. C. 538 Sheep, why not keep them? ?................... 242 Sheep, why not keep them ?..............242 Sheep, with the flock
 Sow and her litter, the ….................... 350 Sows eating pigs ............................................... 864
Sow, value of a brood .......... Sows, age of treeding ................................. 938 Spaying heifers ................................. 90 Stock-raising declining in Scoland.... 242 Stock-judging course at Macleod, the Stock-judging, instruction in, at Yorkstockmen on the C. and E. line disSatisfied …...........................................792 313 Stations on the ©. \& E. line, new..... 938 Swine, breeding and management of.. 791 Teat, to dilate constricted ................... 795 Three-flowered nightshade . ..................939 Veterinary Association, the Manitoba. 35 Veterinary course, lengthenlng it as-
sured sured...................................................$~$ 88
$\qquad$ Watering animals...............................$~$
Warbles in cattle Warbles, Dr. Alexander on Weighing of live stock for sale at stock-yards
Whent for hot
Whent for hogs '........................... 133
Wisconsin World's Fair appropriation. 425


[^0]:    1m answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE

[^1]:    Dr. Edward F. Wells, of Chicago, in a recent ad
    aress delivered at a meeting of the American Medica

[^2]:    In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE

[^3]:    In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

