

VoL. XXXIV. LONDON, ONTARIO.
JULY 1, 1899.
WINNIPEG, MANITOBA.
No. 481


Purest and Best !

## Windsor Salt

FIRST PRIVESS
Were awarded to 8 exhibitors at the Indus-
trial Fair, Toronto, and western triel Fair, Toronto, and Western Fair, London,
189\%, who used WINDSOR SPECIAL CHEESE SALT in curing cheese exhibited, and to 9 exlibitors at the same exhibitions who used WINDSOR SPECLAL BUTTER SALT in salting butter exhibited.
GOLD MEDALS
Awarded for best exhibits of Creamery and Dairy Butter at both exhibitions were won by
exhbibitors using WINDSOR BUTTER SALT.

Esk or WINDSOR SALT.

## Splendidi Prizes!

The most interesting prize system ever offered.
Rerey reader should learn aboust it.
Write for fali
 TURF, FIELD AND FARM, om STAY AT

## HOTEL LELANO

The Leading Hotel of the West.
 W. D. Douglas, Prop., Wiminieg, Man.

## CATERPILLARINE


 vr. Wm. Mole, 443 Bathurist street. TORONTO.
please mertion farmer's adYocate.

## Lands for Everybody.

FREE QRANTS OF GOVERNMENT LANDS Cheap railway Lands for sale QOOD SOLL. PURE WATER. AMPLE FUEL.



 riilway; suitable for miced fa
North Saskatchewan dro aftords a splen-

 OSLER, MAMNDND \& WANTON, 381 Maln street, whinipeg, manitoba

## Agents Wantad

We desire to engage in every Province, either on salary or commission, a number of firstclass, reliable agents, to obtain new subscribers to the "Farmer's Advocate." Sons of old subscribers preferred.

THE WILLIAM WELD BO., Limited, LONDON, ONTARIO.
CommonSense of Dog Doctoring."
A new and revised edition just from the press T His little work contains all information neceegary in a popular and intelligent style and yet thorough.
iy covers the riound Price, 2 ES cents, ty mail,
post tree Pubished by-
SPRATT'S PATENT, LIMITED,
Manufacturers of

Dog and Poultry Fo
Offices and Factory
All kinds Offices and Factory: 239 to 245 East 56th St., New York, N. Y.
San Francisco Branch:: 1385 Valencla San Francisco Branch:- 1385 Valencla om

EDMUND WELD
Barrister, Solieltor, Notary Pablic, Eto. Moneys loaned on real estate at locwest rutee. In-
veatments ADDrimes: 87 DUNDAS ST., LONDOXI, oive.

THE FARMER'S ADVOCATE.

|  |
| :---: |
|  |  |
|  |  |



When building barn basements or stable walls of any kind -stone, brick, or concrete be sure to put a six-inch tile through the walls opposite the feed alleys, at about the floor level. It will pay you to investigate our system of

## Ventilation.

Fully covered by letters patent, but to our patrons we make no charge.

Write for pamphlet containing valuable infor
mation, prices, etc.

## Isaac Usher \& Son, Queenston, Ont.

 VALUABLE WELL-KNOWN FARM FOR SALE!


 Full particulars given on application. Address.


## Brantford

Galvanizad Steel Wridarils Towers and Grinders,


Woodstock Steel Windmills


LIGHTNNG WELL MACHY IS THE STANDARD GASOLINE ENGINES GASOLINE ENGINES THE AMERICAN WELL WORK

BOYS FOR FARM HELP. The managers of Dr Barnardo's Homes will be
glad to recive applications from tarmers or othe
tor the boys who
tor


 sultability for Canacian life. Full particulars as to
the terms and condition upon whict the boys are
placed may be obtained on application to MR

 (

## XRMER'S ADVGGTE <br> AGRICULTURE, STOCK, DAIRY, POULTRY, <br> ol. Nxxiv. <br> LONDON, ONT., and WINNIPEG, MAN., JULY 1, 1899. <br> No. 481

## EDITORIAL

## The Farmer's Dwelling House.

cash prizes offered.
The observation is frequently made in many ctions of the country that the farmer erects tter buildings, comparatively speaking, for his imals than he does for himself and his family. $e$ is charged with putting more thought and sults of observation into barn plans than into ouse plans, and that he seems to be more conrrned for the ventilation and sanitation of stables pan for the comfort and well-being of his wife and mily. We shall not stop to discuss how well bunded the complaint may be, but as many new rmhouses will undoubtedly be erected in the ear future, and many substantial old ones can be astly improved by a little alteration, we have a lan to propose whereby helpful ideas may be laced at the disposal of our readers. Time was Then the main idea appeared to be "lots of room" nclosed within four square walls, with little or no egard to obviating unnecessary steps and toil on he part of the wife and daughter or domestic help, r to a tasty exterior, or to making the rooms There the members of the family spend most of heir time the most comfortable. To begin with, he farmhouse should be homelike-a place to live he the associations of which will become almost part and parcel of the family as it grows up. teretofore the ventilation, drainage, heating by
urnace (more cleanly, economical and effective hhan an assortment of stoves), arrangement of ellar, back kitchen, etc., have received altogether oo little attention, compared, in many cases, with
n ambitious but costly attempt to make a big, n ambitious but costly attempt to make a big,
howy edifice. What we propose is to offer the howy edifice. What we propose is to offer the
num of $\$ 45$, divided into three prizes (1st, $\$ 20$; 2 nd, nim of $\$ 15$, divided into three prizes (1st, $\$$ and 3 ;rd, $\$ 10$ ), for the best and most complete flans, with written descriptions sufficient to exblain the former fully, together with a good clear ohotograph of the house itself; the house to be one the cost of which would in the ordinary course run Many people themselves now possess and can ise cameras, or, if not, the services of a local photographer can readily be secured to "take", - picture bf the residence. Many persons naturally take a justifiable pride in their homes,
and already have in their possession good photoand already have in their possession good photographs. In such cases it would only be necessary
to prepare the plans of the cellar or basement and coprepare the plans of the cellar or basement and
different stories, showing how they are laid out, together with closets, pantry, verandas, dimensions, etc., and forward to us, with a letter describ-
ing the house, material used, cost, etc. This ing the house, material used, cost, etc. This
competition will be open for two months (July and August), all plans, photos, and manuscript to reach the Farmer's Advocate office, London, Ont., on or before the 1st of September next. Announceand so soon after as practical we will publish in the Advocate engravings of the prizewinning houses, and plans and the descriptive articles. We desire our friends to aid us in furthering the object we
have in view, as stated atove, by at once entering have in view, as stated above, by at once entering
the competition and sending us the plans, photos, and articles. Do not put it off till a more conrenient season, but decide to-day that you will do
so. Prepare the plans in pencil or ink (the latter so. Prepare the plans in pencil or ink (the latter
preferred), or making pencil sketch first and pen preferred), or making pencil sketch first and pen
and ink afterwards. Make arrangements for the taking of the photo, if you have not one already, laking of the photo, if you have not one already,
and writing the descriptive article. Mark your name and address on each, and wrap up the photo carefully, so as to avoid injury in coming through
the mails.

Fattening Cattle Loose Instead of Tied. Early in the year 1897 the attention of one of the editors of the Farmer's Advocate was called to the results of a comparative test between cattle fattened loose and a similar lot tied in the usual way. It was conducted on the farm of Hon. Wm.
Mulock, Postmaster-General, near Aurora, Ont., in the County of York, and was under the oversight of Mr. Wm. Linton, the well-known Shorthorn breeder. The gains in flesh stated to have been made by the cattle at liberty, compared with these confined were so remarkable as to challenge instant atten tion. A member of our staff visited the farm, obtained a description of the plan of feeding and particulars generally of the trial, which were published in the April 1st issue of the Advocate of tage of extra main in lesh, but a simpler and less tage of extra gain in fesh, and a simpler and less expensive plats, all of which are important items which a good business farmer will not overlook in these days of close margins, because they may mean the difference between loss and profit. That the subject deserved further investigation was, therefore, apparent on its face. On a few stock farms here and there the plan had been in use, giving satisfactory ressul, C. Edwards, M. P., of Rocklanal (where this plan had been in vogue for some years on an extense
scale); A. D. Brown, Elgin Co.; the McMillans, of Huron; Baty, of Middlesex, and others, from whom we obtained and were enabled to lay before the farmers of the country a fund of definite and suggestive information. The desirability was sug gested of an experiment on this subject at one o the Government institutions, and the matter wa promptly taken up by Mr. Wm. Rennie, the abl Superintendent 1 careful trial was made during the winter of 1898 which resulted in favor of the loose system of feeding, as our readers are aware. In the system of feeding, as
6 months' feeding period the loose steers, on similar rations, gained about 70 pounds each per head more than those confined. A good many others have since been encouraged to give this plan a trial, and the consensus of opinion seems to be tha the cattle make greater gains - "do" betteron the same food with less labor. That they should thrive better with a fair amount of liberty and exer cise than when cases never let out at all-during the long feeding period, does not seem unreasona he, because under the latter conditions the secre tions and other processes will naturally become clogged and impeded, thus preventing the animal from making the best use of its food. Animals so fed require to be dehorned; and, as a rule, have access to water at in Alition in which adva tage arises in the is left for use in fertilizing the quantil o future crops Last year a number of farm for future crops. in order to change from stalls, with stanchions or chains, to open compart ments, and this year some old stables are being altered and new ones constructed according to the latter plan. That feeders might be further in formed on the subject, one of our staff recently spent a couple of days in Huron co., Ont., an elsewhere we give the resats, Mr. Wm Mury in th case of two sucsoson fed 44 head loose and 18 tied who Mr. D. A. Forrester, who delivered the othe and wr. ell.fattened bunch of 40 head, all fed loose5 in each pen. Both are well satisfied with the system. A plan of each stable is given. We migh add that Hon. Mr. Mulock himself visited Mr Forrester's stables last winter and was so wel pleased with the details of the internal arrangement that he intends ter. He now considers it an accordingly this summer. cattle penned together We also publish a letter with an elaborate set of
plans kindly furnished us by Mr. A. S. McBean, of Alengarry Co., Ont., in reply to a recent enquiry from one of our readers, in which he gives an cattle, 100 hogs, and 8 or 10 horses, besides poultry. Mr. McBean has been fattening export cattle for 7 or 8 years, and a year ago rearranged his stables, giving up the system of tying cattle, and he is wel pleased with the change. The plans which he has furnished us, as well as the others published, wil repay careful study.

## Preparation for the Fairs.

As the fair season approaches again, we are led to think of the need of preparation for the compe tition for the prizes offered in the various ines o
live stock, agriculturai, dairy and horticultural products. In the case of live stock, no doubt the wrork of preparation has been, as a rule, in proces for many months. The experienced breeder and showman recognizes the fact that the preparation of prizewinners, in the broadest and best sense begins before they are born by the mating of the best parents, with a view to the production of offspring combining a maximum of the good quali ies of the highest type of the breed
Having such a foundation to build upon, the preparation of the animal for this years showng fair season-not by continuing to force it to obesity by feeding full rations of concentrated and fatten ing foods, hut by varying its bill of fare, making it to consist mainly of bulky foods, such as goo clover hay and eary-cut, well-saved straw, cor fodder, and a liberal supply of roots, bran, and ground oats. This, together widideal treatment for at least the first half of the year since the for at least the irst hasis showing season While in these re marks we are thinking primarily of cattle, yet in the main the same general line of treatment, with variations to meet the different circumstances applies to all classes of stock. The first desider atum is the laying of a firm foundation by securing a strong constitution, with the best quality of bone and abundant mas safely be added in the form finishing touches may safely be added in tene form
of a larger proportion of the more concentrated foods, such as oil cake and cotton-seed meal, peas and corn; but for variety and safety it is well, in feeding any or all of these, to add bran and oats, in order to avoid cloying of the appetite, and to produce natural flesh in preference to fat exclusively, and to prevent the tendency to lumpiness o the production of rolls of hard fal on the exterio of the carcass, on the one hand, or Txcessiv softness and hadity of handing in the well-fed animal which quasingos to the touch with a certain elastic softness which pleases and satisfies a judge who knows from experience when he finds what is about right and, other things being equal, this quality o handling may well, and often does, turn the scale and decide the placing of competing animals, since it indicates a kindy feeder why class of bee cattle, and is found, as a rule, in the deepest
milking and richest butter-producing cows. While mil prepare stock for successful showing by allowing them to run out in the hot summer sun, where they have to fight flies and forage for a living, but that they must be kept up in well-ventilated stables with screen doors and windows to admi fresh air and exclude flies, yet it is important tha sufficient exercise to keep their legs in the best condition shall be ga pasture field, if not during she nights, at least for two or three hours in the the nights, at least for two or three hours in the
evening and early morning of each day. This we know is hardly practicable in the case of bulls, but these may be given liberty to exercise in a shed, or be led out for a mile or two in the cool of the

The Farmer's Advocate

## and Home Magazine

the leading agrigultural journal in the dominion.

$\qquad$
. Lompon, Bsounso, ormos:
W. W. CHAPMAN, Anent Fritan: Howne

John weld, Manage.

1. Tris faturrrs Ai

DVOCATE is published on the firt and ifreenth






5. THis ADvocitis it semt to mboribers until en explidit order
6. THE LDUW made ns
6. THE LAW IS Ihat all subesibers to newpepere are held

\&. ALWAYS GIVE THE NAME of the Fosto Ofige to whioh your paper
9. THE DATE
10. SUBSCRRBERS Laling to readive their paper promptly and

1. No ANONYMOUS communiations or enguinies will reoeive atten.
2. LEETTRES intended too

WE INVTrs FARAERR to write on on any agrioulural topic


 Addreen-the farmers advocate, or the willian weld co., Losdon, Candad.
evening. Expenenced showmen know the impo tance of securing a glossy and soft-feeling quality of hair, and this can only be obtained by blanketing and carern seratching withs grooming, which does not meant brushing the use of soft currycomb, but frequent brushing, the use of soft woolen dusting
cloths, and, what is still better, cloths, and, what is still better, a free use of which is the best possible agency to produce a gloss and $a$ kindly feeling.
by the halter or line to walk gently and naturally and sprightly carriage, and to stand with a proud
beell in the counts for much more in the showring than tage, exhibitors reckon upon, we have seen prizes
awarded to animals judged position which awimals apprehed in a fixed standing to their credit had they been required to walk around the ring before the ribbons were tied, Judges are now rightly paying more attention An animal intended for breeding pussesoses stock.
certainly to be capable of walking freely, and the idea contained in the axiom, "No foot, no horse,", is
being wisely extended so as to auply stock, for it is certain that quality and strength live feet and legs and their proper placing are of no vigor and prepotency indications of constitutional The same general
thorough preparation as is outlined in the fore going remarks apply to all exhibits intened for products, or, fruits and flowers. . Strict attention to
the adoption of the the adoption of the most approved methods in the
selection, cultivation and deren varieties of grain or roots, the fertilizing the best and protection of fruits, and the most scrupulous cleanliness in the handling of milk from which hatter or cheese is made in order to secure the are absolutely necessary to success where competition is so keen and trained judges of fine discriminating taste are called upon to officiate. In every
department of our great ayricultural and indus.
trial exhibitions the trial exhibitions the standricultur tel and indus.
advancing, and those who would of exellence is advancing, and those who would stand ammonge the
winners in this friendly rivalry must learn to realize winners in this friendly rivalry must learn to realize
that the best is none too good.

The 1899 Graduating Class from the Ontario Agricultural College.
In this issue we take pleasure in presenting photogravures of the members of the 1899 graduating class from the Ontario Agricultural College. It will be gratifying to our readers to notice that (the degree conferred by the Provincial University) all come from Canadian farms, and also that they have decided to follow agriculture in one or other of its branches. We congratulate them on suc cessfully completing their course, and bespeak for them, one and all, careers of usefulness, that will do credit to themselves and their alma mater.
Mr. A. M. High, B.S. A., was born on a farm in descent, known as Pennsylvania Dutch. Mr. High secured his associate diploma at the end of his second year, in 1890, and did not reenter the College
till October, 1898 , and graduated at the end of the 18989 College year. While at the College Mr. High was appointed by his fellow students to the
office of treasurer of the Young Men's Christian Asfice of treasurer of the Young Men's Christian of the O. A. C. Review. He has given especial attention to hortitucuture, He has given especial at-
fellow from now forward.
Mr. Chester D. Jarvis, B. S. A., of Guelph, was Mr. L. G. Jarvis, the well-known poultry son of and late manager of the Poultry Department of
the Ontario Agricultural College. Mr. Jarvis the Ontario Agricultural College. Mr. Jarvis,
after receiving a good general education, worked on his fathers s fruot and poultry farm, worked Port
Stanley, Elgin Co. In 1890 he entered the o. A. C.

A. м. high, b. s. A.
where he passed all examinations with good stand dipions was awarded he received his associat nary science, won first place in the essay competi-
tion at the College, and was awarded the of Agriculture's prize. During his third year he Society. Mr. Jarvis specialized in horticulture Litary intends to follow this line of work. He is now employed at the Horticultural Dopartment, assist-
ing in experimental work in fruit and flow

Mr. Wm. N. Hutt, brother of Prof. Hutt, Hor he Township of Stamford, in the County of W in E. He comes from a long line of farmers of U . Niagara district. His father, FA A. Hutt is of the he leading farmers and fruit-growers of his one of y, and has always taken a deep interest in agribrought up on the farm, and atter. Hutt was and high school in his township. For two public attended the St. Catharines Collegiate Institute ndass erert obtaicained honor matriculation and a first-
For a couple of yean school near home, and spent his summers taught farm. Mr. Hutt has always been a close student of agricultural problems, and has kept in close touch
with the current agricultural literature of Canada and the United States.. He has also bee of Canada at local Farruers
agricultural press. Institutes, and and a ween a speaker
anter tor the agricultural press. In the fall of 1897 he entered
the 0 . A. $C$., taking the first course in one year, and has gradhated this yoan the a specialist in horticulture. At the College Mr.
Hutt took prizes for Hutt took prizes for oratory and essay writing. Mr. It
is his intention to follow the scien of agriculture, which he the science and practice
any mans best thought

Mr. F. R. Mallory, B. S. A., was born in 1880 in

 Read, wher was born in in the the late Hon. Senator
Hr
Han the oldest in the country 400 acre farm is one of
 the side of both parents have bive generations on three generations on his father's side have lived upon the farm now in possession of have hived
Mr. Mallory attended the public school untion. age of tiriteen, when he passed the encol until the
aminations. He then worke aninations. He then worksed upe entrance ex.
farm until the age of fifteen. In January of hare

he entered the Commercial Department of Albert College, Belleville; concluded hiss commercial course in April of the same year. With the purpose of
following agriculture in view, he entered the firstyear class at the Ontario Agricultural CollegerstOctober of 1896. In his first-year examinations he stood well up in general proficiency and passed
with honors with honors. In his second year he passed with
honors in nearly all subjects. Entered the third year in October of 1898 and obtained the degree of B. S. A., being an honor man in nearly all subjects, and distinguished himself by writing the best B. S. A In his third year, Mr. Mallory was agricultural editor of the O. A. C. Review. In his second year he held the position of secretary of the Young


Men's Christian Association. Mr. Mallory at pres-
ent intends to assist his working the farm, has father in managing and Holstein cattle and Berkshire and Tamworth swine.
by, Mr. W. J. J. Price, B S, A., was born at Coningshy. Wellington Co., Ont., on September 9th, 187 . for many years has followed the occupation of farming, formerly in the County of Wellington,
but at but at present in Dufferin. His mother was born
 these were: first prize in several pral proficiency in the
first year, first in English, first in natural science
and the Geo. A. Cox scholarship in natural science. 5th, 1873, and lived on the farm until 19 years of stock, the exams. on which included written and A prize won to the was the special prize given by age, thus serving a splendid practical apprentice- practical work on sheep, swine, dairy cattle and the College with first-class honors in his special course. his held during his second year the office of secretary treasurer of corresponding secretary of the $Y$ M. C. A., critic for the Literary Society, business manager for the College paper, the $\mathbf{O}$. A. C. Review, and a year later he was appointed managing editor of the same paper. It is now Mr. Prices intention
to pursue the study and practice of agriculture on scientific lines.

Mr. G. H. Murdock, B. S. A., was born on a farm

F. R. MALLORY, B. S. A.
H. Murdock, was a successful farmer. Mr. Murdock's parents were born in Victoria County, near Lindsay, Ont. He entered the College in the f il
of 1896 , with the intention of preparing himself for farming, which is the line he intends to follow in pay special attention to live stock.

Mr. M. Raynor, B. S. A., was born on his father's farm at Rosehall, Prince Edward Co., Ont., in 1879. U. E. Loyalists. While at the College, Mr. Raynor was president of the Young Men's Christian Asso-
ciation during the College years of 1898 and 1899 . He was also one of the agricultural editors of the O. A. C. Review published monthly for the College
year by the Literary Society. In his first year he

W. J. PRICE, B. S. A
stood third in general proficiency and won a prize
awarded by the College. He also won a $\$ 20$ scholarship for the Department of English in the Raynor purposes to remain on the farm at home for a few years at least. At one time he says he felt like leaving the farm to enter some other work,
but thanks to the training at the Ontario Agricul tural College, he has changed his views, and now believes farming is an occupation which is not to Mr. John Buchanan, B. S. A., was born of Scotch

G. h. murdock, B. s. A.
work, however, securing first-class honors in several subjects, and standing sixth in general
proficiency at the end of his second year. In graduating year he gave special attention to essay
work and thesis, and won first-class honors in these work and thesis, and won first-class honors in these
branches. He held the position of personal editor branches. He held the position of personal editor
of the O. A. C. Review during his second year, and College reporter for same in his third year
Mr. Fred. Rupert Marshall, B. S. A., was born and has always lived at West brook, six miles west of Kingston. His parents are of English and
Scotch descent, and his father has always made farming his occupation. On finishing public school year, and Marshall attended high school for one year, and then spen two years at the Kingston
Collegiate Institute. He then remained three years

m. RAYNOR, B. S. A.
on his father's farm, and entered the O. A. Col ege in his nineteenth year. In his first-year work class honors in mathematics and natural science, being awarded the Cox scholarship in the firstmentioned department. For the year he stood he obtained honors in all departments and retained the same place in proficiency with those of the class who took the first year at the same time. In
his final year he was assistant managing editor of the Review, and captain of the Rugby football team. On the final examination he obtained honors


John buchanan, b. S. A.
being the son of a pioneer farmer, Mr. John Nelles, who came to the locality before there was a tree cat where the city now stands. With the excephome has been in London, where he stands hig is home has been in London, where he stands high in
the esteem of the business community. For 17 years past he has been actively engaged in the general insurance business, during all of which period he has been Secretary of the London Board
of Trade and also of the London Cheese Board the incorporation of which this year was mainly brought about through his efforts. All arrange-
ments for the forthcoming show on Sept. 7th to ments for the forthcoming show on Sept. 7th to 16th are well advanced, and prospects were never
more auspicious. We bespeak for the Western Fair under the new Secretary continued progress and prosperity.

r. marshall, b. s.

A Wise Precaution.
In Denmark very stringent laws have been enacted to prevent tuberculosis in cattle and the spread of infectious diseases in man. All dairies are prohibited from giving out milk or buttermilk on used for food of man or beast unless it has heen subjected to a temperature of at least $185^{\circ} \mathrm{F}$. and the residue in the separator howl must be bury. His lather plan might well be followed by sense safeguard

## STOCK.

The Royal Counties Show. This very popular society was honored this year
the acceptance of its presidency by Her Majesty by the acceptance of its presidency by Her Majesty
the Queen, and its grand exhibition of live stock was during the week honored hy visits from H. R. H. the Prince of Wales and their Royal Highneses
the Dukes of York and Connaught, as well as ather the Dukes of York and connaught, A. Rell H. Prinere
members of the royal family. H
Cristian undertook the duties of acting president. Members of the royal family. of acting president,
Chistian undertook the duties of carried out in a thorough and efficient which were carried out in a thorough and
manner by His Royal Highness, assisted as he was manner by His Royal highness, assisted as he high
by a most energetic cooncil, Under such
patronage, and favored with an ideal showyard,



King clovis 6794.
 sections a record entry and a high standard of
quality This society is one that fully recognizes the claims of sheep. and gives them the place o
precedence in its catalogue ; therefore we will precedence in its catalogue; therefore we will, in
our brief and necessarily much condensed report of this excellent show, follow the same order Hampshires were the first breed placed in the
catalogue, and its total entry was one hundred catalogue, and its total entry was one hundred
pens. The general high merit, even and uniform type and true character of this breed was such that we think that it has at no previous exhibition of this society been exceeded. The yearling rams
were a capital class-uniform in flesh and fleece, the old rams a notable class for great merit of type
and character, particularly the leading sheep the single ram lambs, a culassly of tweenty-nine we were an
exceptionally grand lots showing in the best sense exinceptionally grand lot, showing, in the best sense
of the word, early maturity. There have been of the word, early maturity. There have been
larger classes of single ram lambs, but certainly not in recent years-at any rate, one that was equal in
merit to this. The pens of three ram lambs were funly equal in merit to the former, but not quite so uniform in respect to character, for in selection
there is always experienced the great difficulty of being able to get all three alike. The yearling eves were a capital class, of nice merit and tyee
notably the leading pen ; and the ewe lambs exhib notably the leading pen; and the eve lambs exher this breed. The princiapl prizeevinners were. Mr J. J.
Flowers; Mr. A. Henderson, who took champion
 pionship for best or ram lamb; Cary Coles R. Coles $; \mathbf{W}$. T. Twidell; H. C. Slephens ; $T$ F Buxton; E. Whalley-Tooker; J. Donham.Carter,etc,
Southdowns, with an entry of made a large exhibit, but there was waty-two pens,
ing that uniformity of type and character, eacking that uniformity of type and character, espe-
cially in respect to quality of fleeee and color of cialy in respect to quality of Heece and color of
faces and legs, that one would desire to fin in a a breed that has behind it so grand a reputation, No matter how one may regret to record the fact, careful system of mating yead breeding is obserred by a larger number of breeders than are doing so at the present time, it will be a long tyme before this
breed regains that uniformity of type and character it once possessed. The yearling rams were ortunate securing premier honors and chamipionship for his entry in this class, which was far
oo feminine in appearance, especially in its head,
for a ram. The ofd rams for a ram. The old rams were a usefull classs the
leading sheep being a very good one from Mr. C. R. singles and . Tor pens of thenee, had me class for
excellent viny very excellent specimens amonest thad, many very
mough in in ins instances these, for some cause or other, many instances these, for some cause or other,
failed to secure the judges spproval, whose method of selection veas somewhe's approval, whose mothethod
oreaty criticised. The
yearling ewes and yearling ewese and eeve lambs were every use tul, and,
we thought, far more credit to their breed than the
rams. In addition to H. H. H. the Prince of rams. In addition to H, R. H. the Prince of
Wales, the following noblement and gentlemen
were amonst the prizewimuer.
 farbbour co. Mr. H.
fold ; and A. Hearman.

Kent or Romney Marsh sheep had an entry of twenty-nine, and there was disclosed throughou the whote of ewy classes ago, previous to the work of
type than a
registration being undertaken. Yearling rams registration being undertaken. Yearling rams
were not particularly strong, but the three speciwere not particuarly strong, but the thards were mens were of grand type and quality. Yearling
mexes ewes and ram lambs were smail bet highy credr
able classes the principal winners being Messrs. Millen C. File, and F . Neame
less than forty-four arg present, as argainst nine teen last year. Their general average of merit and quality was high in all respects, and it in much
the credit of this breed that so great uniformity is and can be show. The yearring rams were headed
by a typical Barrs ram, followed by one of Mr. A. by a typical Barrs ram, followed by one of Mr. A.
E. Mansell's, whilst one of A. Bradburn's came in E. Mansell's, whilst one of A. Bradburn's came in
for third honors. The old ram class found Mr. for third honors. The head a ram bred by Mr. A
Tanners ram at its Mansell, and Barrs' flock came next. A very credit abhe lot, of yearling ewes were shown, whilst the
ram lambs were hardly up in condition, thourh the winning pen was a typical one, of high merit and quality; the more successful winners being Messrs. M. Rarrs, A. Tanner, A. Ma
L. Mills, and A. Bradburne.
L. O.ford Douns were more fully typical of their breed, owing to an increased entry and to the reappearance
the past year did not compete. His unbroken sucecss has. however, heen stopped, for in yeerling
rams Mr. Treweeke's flock secured the lead, but in rams Mr. Treweeke's flock secured the lead, but in
the classes for ram and ewe lambs the known merit and quality of the Heythorpe fock medis own
Mr. Treweeke winning champion in the yearling ram, Messrs. Brassey and w. Arkell talso being winners in the different classes open to them.
Agricultural Horses (principally, if not entirely, Shires) numbered ninety-nine entries, and these were undoubtedly of a far higher merit and quality than we have ever seen before at the meetings of
this society. The present high value of the Shire this society. The present high value of the Shire
horse and the increased number of studs, combined with its present-time popularity, all 'tonded to
make this exhibit, which will probably hardly be equalled at the Royal, one of the greatest merit and qual frincipal winners, giving first thowe some of of
the
cured the champion and special awards. cured the champion and special awards. The best
stallion or colt was Buscot Harold stalison's champion at Islington in lise8 and 1899 hest mare or filly, Sir J. Blundle Maple's Dunsmore Gloaming, champion female at the last Shire horse show, bred by H. R. H. the Prince of Wales. Lored
Wantage's Hendre Crown Princess won the Shire Horse Society's medal for mare or filly, and Mr. R.
W. Hudson's Traitor that for colts. In addition W. Hudson's Traitor that for colts. In addition to
the above, the following breeders secured first the above, the following breeders, secured first attock, and Sir J. B. B. Maple ; Mr.
being perhaps the to
Hackneys were considerably in excess of the Wrevious years entry-forty as against fifteen-Si inent winner: a grand type of this breed, and one whose improvement is most noticeable; Orange
Blossom securing the Hackney Society' Blossom securing the Hackney Society's medal for
mares, and amongst the other winning studs natices, those owned by Messrr. A. A. E. Evans, we.
Foster, J. Barker, and Sir Charles Piggott were Foster, J. Barker, and Sir
very successful.

Shorthorns numbered one hundred and sixteen entries, as asainst forty-one last year; the high merit, typical character and good quality of many
being very noticeable, particularly the winning animals, many of which, we are pleased to note,
were bred and owned by Her Majes. mongst whose deserverily popular successes (for in every instance the merit of the animal fully justi-
 N. for bulls calved in 1897 ; 2nd and 3rd for bulls.
calved $1898 ;$ Ist and 2 nd for heifers calved in 1897 , and lst for those calved in 1898. Messrs. George Harrison, J. Deane Willis, Miss A. de Rothschild,
J. Thorley J. Thorley, H. Dudding, etc., were also winners. forty-two, and the general high merit has, we think, been seldom equalled at any previous, show of this society, which has been onfy reeently in-
duced to include these cattle in their schedule. The Rev. C . include these cattle in their schedule. The
Rho secured two out of the three special awards, was the more two out out the three
though Col. Tufnell who was a very strong competitor. Mr W. B. Green. field, Sir J. Br. Iaple and R. W. Hudson also being
successful winners. The Susse.. breed of cattle were only thirty-
three in number, but that which was lacking in reseect to number, was fully whade wa by lacking in Mr. P. Latliard were the winners of the suy and two falling to Earl of Derby shars of and it specials,
remarked that the herd of this breed owned by be Lordship is one of exceptional mered owned by His
character. The Hon type and
Hon. R. P. Nevills' heril was In sconsstuld a very excellent entry of twent $y$ five Her Aajesty the Quents herd securing the the Ifereforls, with a typical entry of first-class
merit and ,umaitity. wirw honored by
entry from Her Majesty the Queen's herd, whose
uniform success was very popular. the prizes in both bull classes going to the roval herer as well as R. N. for the special prize, which wain secured by Mr. A. Hughes cow, Mr. J. Tudge The entries in the Jersey classes
hundred and twenty-seven, a record entry of two breed at this show, and remarkable as being one of Thomas won the bull championship, and Mri McIntosh that for females. $\quad$ ually large entry Guernseys mad and and equally large entry, one
hundred and thirty being the number. general average merit, even quality and type wa Mrs. F. A. Montefiore securing the female cham pionship, and Mr. E A. Humbro that for the males
Thirty-six Kerry cattle were entered animals, of very excellent type-Messrs. Robertson being the princepal winners; and an entry of fortyone was made in the sister breed, Dexter Kerries,
wherein Mr. E. S. Woodiwiss won the principal wherein
awards.
swine.
The Berkshipe pigs were largely and well shown, the entry numbering no less than seventy-two, as Highclere Topper, a grand boar was made cham pion of the breed, and Mr. G. T. Tomkins secured
 cessful winners were Messis. J. Je. Jefferson, ${ }^{\text {E. }}$
Burbridge N. Benjafield, A. Hiscock (Jr.), Earl of

Shorthorns at the Royal Counties Show The red, white and roan were in force at this
how, held this vear at Windsor, June 5 th to 8 th the entries numbering 116. There were some absentees. In the class for bulls calved previcame into the ring. The quintette wert five only all into the ring. The quintette were, however
all well-known old competitors, and the first winner was found in Mr. P. L. Mills' celebrated champion Marengo, which is now so massive that he veighs one as ever. Second to him was placed Mr
for service
 acter and very perfect build, and H. R. H. the
Prince of Wales brought a very shapely roan called Prince of Wales brought a very shapely roan called
Stephanos, with a handsome head, broad, level back, wanting perhaps a littele bead, ber coadering at
the shoulders, but otherwise of excellent mold the shoulders, but otherwise of excellent mold,
which proved a worthy third winner. He wa which proved a worthy third winner. He was bred
by H. M. the Queen. Thus it happened that Mr John Handley's Prince of the North, the champion of the Oxfordshire Shoow, and the second winner ai Exeter, could only obtain reserve. The only other nimaa that appeared was Mr. Richard Stratton's
six-year-old Flag Signal, which has developed into sis-year-old Flag signal, which has developed into
considerable length, and, with his good middle and
hind-quarters hind-quarters, follly deserveet the H.C.E Cicket awarded
him. Bulls calved in 1897 mustered to the him. Bulls calved in 1897 mustered to the number
of sixteen, and were headed by Mr. George Harrison's shapely and grandy-ribbed Count Beauty, bred in Soctiand, and a son of Mr. W. Duthie's Golden Count. There were two very good bulls in
the class from the Royal herd of H. M. the Queen and Matchless, by Captain of the Guard, was select


Shorthorn heifer, fairy
 stands wide, and is of full substance, filling the eye packing at the shoulders. Robin Nonpareil the other Royal bull, a handsome roan, obtained reserve; Mr. J. Deane Willis' Bapton Count, with cellent third prize winnerm build, making an exful animals were noticed, Mr. G. F King's Viceroy, Count Lavendar, color, a son of Mr. Deane Willis' Count Lavendar, a handsome roan, belonging to
Mr. W. Heaton, from Lavicashire, called Prince Arvon, and Mri. D. A. Green's Bapton Emisrant, another of Count Lavender's sons, a well-shaped
roan of admirahle chand roan of admirathe character. Mr. H. Dudding had
three very useful animals in the class one of which, Pride of Fortune, bred by Mr. W. Duthie, wid not seem to bè appreciated sufficiently. Mr. Morgan
Richardson's (avalier, l, ired by Mr. J. D. Willis,


The yearling bulls were in still greater force, num
bering nearry a score, and quite filling the ring bering nearly a score, and ant The high merit of about eight them also entailed a severe task on the judges. The chief difticulty, looking roans and Mre and Rosedale Jeweller. The latter two are
 former is so perfect in outline that tar is hard to frgma Yet, but the Queen's Marmaduke, with his beatifuat one of the judge's, would have made hime firrst,
that ons ind that one the other was as steadfast in preference for
Bapton Emperor. Lord Brougham was therefore Bapton Emperor. Lord brougham was therefore called in as arbitratis and reserve, and the Queen's
Willis being frst
two having the second and third prizes. Half a two having the second and third prizes. Half a
dozen others received harren honors, consisting of Mr. Cookson's Gustave, Mr. Si'ney Hills Yet, Mr. Leopold de Rothschild's White President,
which was first prizetaker at the Oxfordshire Show, which was first prizetaker at the oxfordshire Show, and Mr. G. F. Kingson's Major - General apperared
Morgan- Richardsots. Muperior in symmetrical molding, and certanl
wealth, to the others, except the prizetakers.
emed to puzzle the judges almost as much as the oung bulls had done, and, indeed, it was difficul o decide amongst the respective merits of three o four of them. Mr. George Harrison's well-knowh
Welcome was moved up until she got quite to the Welcome was of thadges favoring her claims in pref-
topence of those of the Waddesdon Manor Miss
erene to Belladrum 6th, and, indeed, the type of the two
Bnimals is different, Welcome excelling in even ness, but not having the wealtty substance and
large scale of Miss Alice de Rothschild's cow. Lord Broughan ance Rersincts cow. Lord nd after Miss Belladrum bth came Mr. Brierley' Queen of Hearts and Jewel 2nd for third prize and
eserve, Mr. Leopold de Rothschilds Sittyton Bride nd Mr. John Little's Ruby being both H.C. Of Mr. Brierdeys ymirn perfeently, and, strange to sorved, her
grand for
defect at the tail does not appear so noticeable as when she was younger. Some will have it that Jowel not seem very perceptible, although she has certainly lost bloom owing to, breeding so fast. She has a good calf at foot now. The three-year old breeding heirers forme Sidney Hill's Evely 2nd a fullishaped, grand roon, bred by Mr. G. F. King,
was selected for the first prize above Mr. Heury Duddin's's Blossom, which, ing at the shoulders, would be very perfect. Mr.
Leopold de Rothschild's Mayflower thth, with her well-sprung ribs and substance, made, a worthy
third winner. She was a first winner at the Oxthird winner. She was a first winner at the Ox fortsitire Show, when not having such strong com-
petitors as here
Hytoserve was found in Mr. Myttons silene, also very broad, deep and massive;
Mr. John Little's Butterfy 2nd, of nice character, Mr. John Little's Butterfy foot, being, perhaps, the
 year-old heifers formed a very superior class. Her
Majesty had two therein, a beautiful level white called Fairy, which was not only first, but eventalaly carried off two champion prizes, ribs, but no
more wealthy with finelysprung
quite even. To her was allotted third prize a quite even. To her was allotted Mr. Lird D. Wrize, Wiliss
second winer being found in M. heifer, of very uniform build and nice character Mr. Heaton had reserve with the welli-known only get H. C., a distinction bestowed also on Mr. George Harrison's Fairy Queen, Mr. Leopold de
Rothschild's President Bride, and Miss Alice de Rothschild's Princess an. The yearing heife class was large as well as good, as many as nine absentees from those originally entered. The
Queen got another first prize with her very handQueen got another first prize with her very hand-
some roan Cicely, by Prince Victor, a fuli-shaped soifer, very uniform and handsome. Of course she must have been very good to have been placed in
front of Mr. J. Thorley's beautiful pair, Ringdale Memory 3rd and Nonpariel 2nd; the former with eyes more and more the oftener she is seen; her herr companion is very compact in build, and very
wealthy wealthy. These deservedly received second and
third prizes, leaving reserve to Mr. Deane Willis' White Heather, of stylish form and nice character. The Prince of Wales had a good roan heifer by his,
bull Stephanos, called Glisten, which received H.C., as well as Mres, Sydneey Hills, Crocus, which, with a
little more packing at the shoulders, would be very perfect.
The
Shorthorn dairy class for cows in profit been the first to enter the ring. Miss Alice de Rothnschild's Bracter Queen, bred by Lord Lovat, in
Scotland, of large scale, and a cow combininggrazing
 rs. Francis Pratts Dairymaids little flesh on her bones. petting the second premiThe Shorthorn Society's special prize for the best
 to which the Queen's Marmaduke was placed re-
serve. A champion prize for the best fenale in the

Shorthorn classes, offered by Viscount Baring, was
taken by the Queen's Fairy, which also carried off taken by the Queen's Fairy, which also carried of
Mr. Martin J. Stutton's 20 -guinea champion prize as best animal in the Shorthorn classes. As Mr George Harrison's Count Beauty was placed re
serve for it he was deemed the second best Short serve for it he was deemed the second best Short
horn The reserve for the female champion prize
was the Queen's heifer Cicely.

## Weaning and Feeding Lambs

The time of weaning lambs will depend to some extent on the time at which they have been misptakes are made by delaying it too long than in
doing it too soon. If lambs have thrived well, an eariier age is preferable, both on account of the repare for a successful lambing season next year is efore the time of coupling in the fall, and an 1 y rested and rectuperated between weaning and coupling time. Those who leave their lambs too ong with their dams are usually the ones who make the poorest provision for the tambs after the either in the brown pastures of harvest or after the grass has been stricken with early frosts and has these cases lambs will fall away if not properly looked after, and will not have the constitution and vigor that will firt them to go into the breeding
flock as either sires or dams. flock as either sires or dams, By having lambs a pastures become dry, and the more experience one has with early and late lambs the more he finds the possibilities for excellence in favor of the eariy
ones. A grass lamb may be little trouble and may nurn out grair at a low average cost, but in order to force a lamb, and this seems to be the proftabie
nd inevitable tendency on our valuable lands, the
 and for these qualities a snifrin food in the creeps is necessary. A lamb dropped on the grass will not
take to grain foods as well as one whose run is

guernsey bull, shert anchor.
бWNED By
limited to the pen and that has a comparatively
oomy end of it available with temptin
A March lamb may be weaned by the end of Aune. If he has had grain food while sucking, so nuch the better; he will be large, lusty, and strong, cases to feed some grain before weaning, and only a small quantity is necessary. A mixture of equa bulk of bran with a combination of chopped peas and chopped oats in equal weights is good A
good singele handful of linseed meal mixed with a gailon of this will be profitably added and will help oo preserve and increase the no ung of the young grain in things. Mature sheep show left to do their own grinding. Many prefer whole grain for lambs even.
For rapid gains 1 prefer ground feed before and For rapid gains I prefer ground feed before and
even after weaning. Lambs eat and masticate even after weaning. Of coursel with ruminating, ground food slowly. In cannot give any satisfactory reason for my choice
of ground feed. I have a decided preference for it. of ground feed. I have a decided preference for in however, to fill out on it from the beginning. It may be that the fine grinding of the food lessen food to some extent, and that the grinding likewise food to some elements of the food more easily acted
nuakes on by the fluids secreted by the paunch. The slowness with which iambs ick up ground foor suggests the idea of its passing In either of these cases there in an economy in the energies of the organism just instead of making him travel long
fold or pen inste Experiments with ground and foldan open for it. Experiments with ground and nuground foods go to show that the grinding brings
no more than enough advantage to pay for milling the grain. The experiment, lamb and last unti matured or sold, as it is probable that in fattening lambs that have been rustling over rough foods the
mastication of whole oats would be no tax on their energy compared to the increased and concentrated
nutrinent it would yield, and conversely the relief nutriment it would yield, and conversely the relie
from feeding ground food would be no advantage.

The method of weaning need not be elaborate
Both ewes and lambs probably adapt themselves to the changed conditions most quietly by a tota separation at once. The little care that is necessary supply gets very small in three or fhat the mill that the advantages a lamb would get from a protracted weaning are small compared to the rouble of frequent separations and the uneasinese process. The ewes should be watched for teanee $\boldsymbol{t r}$ our days to prevent spoiling of the udder. Some will need no milking at alk, some will require it times. They should not he milked dry and three day is often enough at first, with longer intervels
later if the milking has to be continued. They hould be turned on dry pasture for a few days. ave found it a good plan in the case of ewes with (or a week or ten days after the other has been wen off. It helps the weaker lamb and dries the win gradually, and it is generally a ewe suckling and requires attention at weaning time. grazing the farm affords. Rapeis is good sheep feed of fall has begun. The neadows is ideal lamb food and shoula be saved also - better than the lambs are for the meadows The practice of sowing rape thinlyly nspring grain the land at the same time. Adjacent pieces of rape the land at the same time. Adjacent pieces of rape arrangement for fall feeding of lambs - better than rape alone and just as profitable as rape and grain.
Rape seems to be such a complete ration for lambs hat for ordinary purposes grain feeding is unnecees hary with it, but to the man who is possessed with he idea that the best lamb is none too good for his young things in the morring, and he will find ho difficillty in creating an appetite for the same thing in the evening. An important difference
between the feeding of young and old stock is that
 creating you ingreesed cappacity for more food, while
in the case of stock the capacito is fied.
Y its leg. Generous feeding of young stock is profit Ytsleg. Generous feeding or young stock is prome
able elikewise because that growth in boone frame,
etc., as well as flesh, appropriates food elemente nore completely than the making
 making rather than fat-making moscole- and and bone their
ration should consist principally of bran and oats, ration should consist principalily of bran and oots,
Wethers require more fattening rations, but the Netters require more faep to such a deereee that
demand is not or fat shat
wethers and ewes should be separated. What will wethers and ewes should be separated. What will
put the wethers in good shape will be none too put the wethers in good shape wil ine noe ran
good for your future ewe flock. In the case of ram Yood for your fature ewe hock. Win the case of ram
lambsor breding purposes heavier feeding is both
desirable and necessary. The additional size,
 appetite; the restlessness of rams on the approach
of fall means more food to keep them in good flesh and to take the market well for breeding purposes, size from rapid growth and good looks from a ram fleshed up on top than it is a eve. For these
reasons heas and oil cake may be added to the reasons peas and oil cake may be added to the
rations of bran and oats, and the rams should be rations of bran and oats, and the rams should be
kept well filled all the time. The constitute a larger portion of the whole ration for rams than they do for ewe lambs. Feeding suitable rations as to kind and quality, the only measure as
to quantity is the appetite of the lamb.
Feed enough to satisfy you that the lamb is ready to quit when the trough is empty.

## The Honor Roll Again.

Sir, -In the construction of the notes under the presume you took your data from the Londoy ILive thock Journal of July, 1888, which reads as follows "Mr. Robert Thompon (of Inglewood, near Pen rith) takes five out of the eight first prizes; having
also the champion prize for females, and holding reserve for champion males Hardly ever hefore in the history of the Society have so many of its honors gone to one man. And the Inglewood win plish-to have bred a lot of cattle with a strong family likeness ruaning through the whole, and to have assured that that family type is a very ine
type Mr. Thompson (thanks to a very impressive sire) has achieved that feat." Speaking of the female section, it is said that Mr. Thompson's
Molly Millicent is "alinost an ideal Shorthorn. It is impossible to maintain that milk and meat cannot be combined when such cows are presented.
They all have frames like Christmas bullocks and udders like dairymen's cows." Perhaps your his torian might have given the Sheriff Hutton herd a
little credit also for Mr. Handley's bull, Self Conceit (505023), and done no one an injustice. We had supposed Mr. Gilbson intended to give us an elaborate
description of a great many of the winning anidescription of a a great many of the winning ani-
mals individually, but, with very few exceptions, it is a repetition of the report of the Royal Agricultural Show. With regard to the Duke of Nor-
thumberland, your historian says: "He must have thumberland, your historian says: " He must have
been a freak, or our breeders have been standing
stil. I never yet met a breeder who knew him at his best but what said he was better than any they
had since seen." 1 thelieve there are a very great
number of hreeders of the number of breeders of the present day who wroald
nike to know wherein his supeNative goodnos conlike to know wherein his superative goodro ws con-
sisted. His picture, reproduced in onneetion with
the Hono Roll is said to be e true tikeness of the the Honor Roll, is said to be a true likeness of the
bull If so looking from the cut of the Duke to
those of the other bulls ithe coutrated, or to that of those of the othher bum the culluthated, or to to that tof
Bracelet on the same page, it is very easy to see Bracelet on the same page, it is very easy to see
where his defects las, and he never was a remark-
ably
holl buils torat were his peeres since hisen day. We.s. knew
Thos Bates and we knew his cattle in his lifetime,

hincole ram lamb "Al.

and he never owned as heary-fleshed cattle as many artist, and that he put a finish on his cattle that we do not see to-day; but he bred his cattle in and in so much that he ruined them constitutionally. At the same time, it was wonderful how they retained
onto beauty of outline; and whenever they got onto any other family they invariably put that arena; prize after the Booths stepped into the hands until they got a cross of the blood ot other good families, but were still called Bates cattle;
and perhaps this same statement applies to all
breeders who have tried to hold tain families of Shorthorns. York Co., Ont.
Summarized Notes from English Shows. At different county shows through England found more numerous than others; hence, to see an its number and quality Wiltshire County Shality we would find that the breed's entry is sure to be seen to great advantage.
At this Society's show, May 31st to June lst last there certainy m was on exhibistion as fine a lot of lof
this particular breed as we would this particular breed as we would desire to see.
The Chilmark flock, property of Mr. James Flower, fully maintained its high reputation for the merit veloped and of its exhicits, which were well-deexcellent variety of sheep. The whole of the first prizes offered went to Mr. Flower, who also secured ram, came in for second honors in the yearling ram class, $R$. N. in the ramb lamb class yean of fram
and H. C. for ewe lambs. Mr. H. C. Stephens' hig, and H. C. for ewe lambs. Mr. H. C. Stephens' hig,
well-developed pen of five ram lambs secured the
second prize in their weli-developed pen of five ram lambs secured the
seong prize their class; Mr. E. Whalley.Tooker
being second for single ram lambs, running being second for single ram lambs, running Mr. J.
Flower very close for first place; and Mr. R. W. five ; Mr. G. Palmer being the owner of a pen of and level pen that came in for R. N. The most notable features of interest at this sho were the grand display made by the Suffolk sheep,
the Suffolk Punch horses, and the Red Polled cattle. Taking the hherses, and the Red Polled
casses first, we find that ing all the champion awards and the special winbest collection of Suffolk sheep with his entries character, with which displayed a grand typicel class wool and flesh. Mr. S. Hubert Smith and first exhibitor, came in for first honors in both the houng numbered forty entries and the latter fifteen. Mr.
H. L. B. McCalmonts flock H. L. B. McCalmont's flock was successful in the old ram class, securing the second prize with a
grand specimen. Mr. R. Burrells fock, as well as
those of Messis. A. Paley, W. W. Flacle, as. wood, and R. V. Barclay, were also S. R. SherThe exhibit was a remarkable display of this breed. whose repute for mutton production of the highest quade but a very small entry, but of capital quality Earls Ellesmere and Cadogan being the successful The Red Polled cattle, alike useful as milk and beef producers-in fact, a bbreed many as milk and
that more nearly than any other represents one
ideal gene ideal general-purpose cattle made represents the
excellent quality and great merite display of excellent quality and great merit, : many of the J. J. Colman, whose recent lamentable late Mr.
necessitated the dispersal of his world-renowned
herd some time since at a very high average herd some time since at a very high average. were owners of the winning animals, which were grand in type and character : Sir J. T. Rowley, Mart., James G. Platt, and T. G. Methold; whils,
Messs. R. H. Mason, Alfred Smith, the Hon. W. The female classes numbered four and contained as grand a lot of cows and heifers as one could wish
to see, to the number of 23 entries, Mr. J. E. Plat leading in three classes, and Lord Amherst, of Hackney, in the other.
Suffolk Punches, a grand breed of most valuable
draft horses, whose value for hardiness of consti drat horses, whose value for hardiness of constinot yet to have become well known to Canadian
breeders. The demand for the geldings of this breeders. The demand for the geldings of this
breed is a large one, and as this breed is one that
can move, it would, we feel sure be of value to can move, it would, we feel sure. be of value to
your own farmers, for they would find them to be excellent horses for gereral farm work, and their produce would no doubt meet with a ready, lucra-
tive sale if sent here broken at four or five years of age. Visitors from Canada are strongly recommended to take a trip in East Anglia and see these
excellent horses at their home. The entry as excellent horses at their home. The entry as a
whole was one of sterling merit and high quality As evidence of this we quote the fact that the judging took from $8.30 \mathrm{a} . \mathrm{m}$. to 5 p . m. in the
opening day to complete. Thirty-five entries filled opening day to complete. Thirty-five entries filled
the four classes of males, and the principal winners therein were W. H. Hewitt, Alfred Smith, and A. H. E. Wood. Sixty-four entries were made in the mare, filly and foal classes, representing as level, even, and typical an exhibit as we have ever seen
of this breed, whose trueness to type, color, and character is well known. The leading winners, which represent the principal studs of the breed,
were A. Smith, whose stud is one of the foremost in the breed; R. W. White, Sir Cuthbert Quilter, A. H. E. Wood, and John Symons.

A Canadian's Visit to the Old Land.

$$
\begin{aligned}
& \text { To the Editor Farmer's Advocate : } \\
& \text { Sir.-Having inst teturned }
\end{aligned}
$$

Sir,--Having just returned from a visit to Eng-
land and Scotland, I thought a few items of what I


## bORDE AUCHENBRAIN ( $£ 80$ ).

## Iaw there would be of interest to yourmany readers

 I Extended the Bath and West of England Show was somewhat disappointed in the exhibit of Shor horns, especially in the male sections. I believe we Canada at our fall exhibitions. such animals as Royal Windsor, Lord Irwin SirArthur Ingram,Telemachus, Lord Zelland, Bolivar and Edgar, Lady Fragrant, Vivan-diere, Molly Millicent, and Queen described by Mr. Gibson, and which I have seen shown at the Royal and other large Shows in Great Britain. Mr. Mills' grand bull Marengo was not shown at Exeter. He is
more of the stamp of the earlier Shorthorn having great scale, very deep in his quarters, of inspautiful character. I had the pleasure lynie. His stock bulls are a very grand Coland the cows are just whery grand lot, would want to select a stock bull from, having large, deep frames and splendid ud-
ders. I find Mr. Duthie directs special atten tion to the milking qualities of his Short horns in using bulls from deep-milking
dams. Mr. Marr was absent at Exeter. had only time to make at hurried visit.
cows have much of the fine character
neighbors', and the fine fill neighbors', and the fhe fine character of his bull Wanderer
heads his herd. Importers will find it
to plole to purchase cattle in Great Britain, as most breedt
ers will not price thein ers will not price their animals subject breedtuberculin test, and when a price is asked it is
generally advanced about forty per cent., which,
together with the serions item to the cost of the testing, is a a very
Mr. W. I). Flatt Ham. I went across with Mr. W. D. Flatt, Hamilton, to assist him in selecting his importation, and he has now in quarantine
at Queber twenty-three head, which will be a great
atcquisition to his alread w wery fin Brant

Stables for Fattening Cattle and Swine on a Large Scale.

Sir,-In your issue of June 1st I notice an in quiry from Mr. John Wallace for plans of a barn
for feeding 200 or 300 head of cattle. I herewith subnit plans of my barn calculated to accom 125 fowl, and from 8 to 10 horses, the principal ob ject in view being to save labor in the feeding of
the stock. I have been feeding cattle for export during the winter months for seven or eight years, and until within the last year I fed the cattle tied in stallis, but last summer I altered my barn, and last winter

tlan no. $4 x$ - End view of stible runving back from A-End view of cattle stable running off from barn. D-Small door in teading from hen bilding.
D-Small door leading from hen coopsto yards below.
E-E Lid riew box bes running full lengtt of stable in which
hains for raising and lowering feeding
 F- Ventilator shaft to cuvola.
fed the cattle loose and all running together, with much better results.
feet, which is joined to feet, feeding stable $105 \times 65$ f feet, which is joined to the barn, forming the letter L reversed, as seen by plans. The whole building
stands on a wall 2 feet thick and 2 feet above the
ground, making ground, making a basement for cattle, pigs and which is the horse stable, implement shed, grinding apparatus, two stalls for sick animals, space divided
off for plus roots. The boiler and engine space for surplus roots. The boiler and engine are in a small
building adjoining the barn on a level with basement, as seen in phan No. 1. The floor beneath the cattle is of earth, and beneath where the pigs are
fed of cement concrete.
The basement of feeding stable varies in height:
The two outside sections being 16 feet high, running from outside sections being 16 feet high, runtion being 8 feet high, leaving a floor 23 feet wide from one end to the other on a level with the second floor of the barn, and a section 15 feet wide at each end of the stable on second floor, as shown
in plan No. 2 . The section nearest the barn, on the second floor, is used for large water tank, two stalls for milk cows, and hoisting apparatus for feed racks, and a bridge leading to basement, used in俞 侖 $\square$
 G-Front view of barn.
H-HOrese stable door.
H1- Barn doors oo ba off into 10 .) The farther end of section is divided
the the exception of two feeding passages 5 feet wide breeding cockerels, as show turnip bin and pens for The third floor of feeding stable is. used as a hay, the two middle section being used for storing as seen in plan No. 3 . grinding recond floor of barn is used for granary, mow over horse stable, weighing scales happe
mins for
how mow over horse stable, weighing scales, hopper
hins for oats used in feeding horses, root cellars,

plan No. 1. The water can have the chill taken off
it by a steam pipe, which runs from the boiler into the tank, as shown in plan No. 1. The capacity of the large tank is about 2,000 gallons, sufficient for
three days' water supply. The cattle have constant three days' water supply. The cattle have constant The stable is ventila in through a large box, which runs underground the full length of the stable, and which is brought up to the ceiling of middle section in basement, and to distribute the fresh air into the stable. The air coming such a long distance underground has the chill taken off it, consequently no condensation
takes place. The outside end of the ventilator is takes place. The outside end of the ventilator is
about ten feet above ground, and arranged with a wide-mouthed funnel with vane attached, so that the opening always faces the breeze. The warm
and foul air is taken off by ventilators running up into cupolas, which have slides that can be opened or shut as required, regulating the temperature. A yard about $40 \times 100$ adjoins the stable, fine days.
The feeding racks are 16 feet long by 4 feet wiae, dived into 16 boxes, 8 on each
side, each box 2 feet square and 1 foot side, each box 2 feet square and 1 foot
deep; 18 inches above top of boxes is the
bottom of the hay rack, which is 1 foot y rack, which is 1 foot
wide at the bottom and
4 feet wide at the top,
and 4 feet deep, having
slats on the sides 6 in-
ches apart. The booses

plan no. 2-skcond floor of barn owned by a.s. m'bean.








 hen
(B)


$M^{2}$ , shown in together, as There are four of these middle section, mak ng a total number of feeding boxes 128 . chains are attached pack, and run up and which runs the full length of the
stable over the top of joists of oft floor, and which is covered high, the top of the box being arranged to open so as to allow
racks to be filled with hay. On the end of the chain nearest the contains sand, and weighs whout contains sand, and weighs about
1,000 pounds heavier than the four racks when empty, so that
when the box filled with sand is down in the basement the tops of the racks are up to the joists of the hay racks being fillig boxes are level with the floor oo the middle section, and are filled from the $\sigma$-foot passages. weigh
the racks are full they whe than the box containing the sand, and go down by gravita
tion. A brake is attached to the
main chain at the point where it passes through the floor, regu ating the speed ascending and
descending, and which is left on when racks are empty or full, so that they cannot move until
brake is released. It will be seen brake is released. It will be seen
that these racks work automatically, and require no power to raise or lower them. The racks
slide on grooved posts, which run from the basement to the upper joists, and which hold the racks

Plan no. 1-ground floor of barn owned by a. s. m'bean.
A-Implement room; al, grinding room; a2, leg of eleva-A-Implement room; al, grinding room; a2, leg of eleva
tor a3, hoper bin, which is inled from bann floor a4, large
driving wheer
as, boiler B-Large well and windmill: bl, pipes from well to tank C-Stairs leading from upper foor from outside. feed; d2, pipe from boiler: d3, stairs leading up to barn floor. barn-Horse stable; el, furnace room; ee, stairs leading to
 F-Space used for storing turnips ; f1, two stalls for sick
animals $\ddagger$, spece used to enter horses
G-Hoghe water horses
 being too small to oullow cattle to enter hog pen; g4, door lead-
ing into hog pen.
H-Doors in different parts of the basement;
in different parts of basement.

- Approach to horse stable.

M-Bridges graded to doors orver stone wall: m1, doors into
cattle stable; m2, passage running from one side to the other.
N-Bridge leading up to barn floor used in weighing out
O-Hen yards; ;ol, doors leading from one yard to the
other or small bridges seading from pens to yards; on, large
yard for ducks during summer iot small shed for ducks to lay
and sleep in ; 05 , door leading to duck yard 06 , stairs leading
P-Large yard where cattle are turned out in mild weather;
pl, gate leading from yard. Q-Box under ground bringing fresh air distributed from(R). $_{\text {and }}$
in position. These racks work
in a warehouse. It will be seen in plan No. 1 that there is space for five feeding racks on each side,
but the center one is left out opposite each door leaving a passage straight through the basement,
making it more convenient for teams hauling out
manure. The pigs are fed in the space allotted to them in the cattle cannot eat any of the pigs' feed. The pigs roam about among the cattle nearly all the cattle. When the litter is changed in hen pens an dropped down through thapdoin that is left in the straw. This shows the advantage of having the hogs running loose with the cattle, as they are always foraging, allowing nothing
never had pigs that did any better.
The cattle are all dehorned when in the
Table. Very little crowding is noticed, each anistable. Very little crowding is noticed, each aniuntil he empties it. The racks are filled and lowered, and remain down until within an hour or
so of the next feeding time, the cattle having hay before them all the time.
The manure is not moved until some time in The manure becomes packed, and is almost as hard as a wooden floor. No evaporation takes place nor


## shu

hutinkwo-foot wa

- Windows in feeding stable and hen coops.
- Windowo
-Smaild doorstorillow hens to go down to yards.
Doors in diferent parts of barn.
-Doors in different parts of
-Roor of engie room.
-Approaches to barn floors
any of the gases escape. We did not use much very much larger quantity of manure was made in the same length of time. The amount of straw used for 125 head of cattle, 60 hogs and 8 horses was bout 1,800 pounds per day.
The labor required to feed 114 head tied in stalls, cattle were tied, was $2 \frac{1}{2}$ men, while the labor re quired in feeding 125 head loose, and 60 hogs, was paratively nothing, as the animals stood on the ground. No joist to rot out, no stanchions to re pair, no chains to fix, hor had to curry an anima during the whole feeding period. We sprayed them three times with coal oil emplsion, using the
Spramotor Co.'s spray pump, which gave excellent

skntr or fid rack.
satisfaction. The spray was pumped on the cattle from the middle section above, the cattle all being driven to one side, and we were not troubled with
vermin of any description. When they were Glengarry Co., Ont as A. S. McBean

out three times during the winter. Each pen has
an 8 foot door, which makes it possible to an \&.foot door, which makes it possible to back a
wagon or sleigh inside to haul away the manure. Above each door is a 6 -foot window, 20 inches high The windows are hinged at the bottom, and when open provide ventilation without direct draft upo
the animals. The 49 head that were tied were fed on ensilage
and cut straw and cutoatsheaves, with61bs.cornchop per day. They were not quite as even a lot as the per day. They were not quite as even an apper ind they present as thrifty an appear-
loose ones,
ance. Some of their skins were scurfy and dry while the loose ones presented a bloom and mellow ness that indicated a very thrifty condition. The were never out of their stalls from fall till the went away on June 17th. They were mostly three-
yearolds, but a few two-year-olds were scattered year-olds, but a few two-year-olds were scattered
amongst them. They were not weighed when put
into feed, but Mr. Forrester estimated the 89 head at into feed, but Mr. Forrester estimated the when head at
about an average of 1,100 pounds each. When the went away the 40 head fed loose averaged $1,401 \frac{1}{2}$
pounds each, and the 49 tied ones 1,335 pounds each. pounds each, and the 49 tied ones 1,335 pounds each. parison between the two methods of feeding, as the oose cattle were of perhaps a bit better average on account of being dehorned. Mir. Forrest-
er has fed cattle loose two winters, and holds a very high opinion of that method of feeding, as they take not more than half
as much work as tied cattle. The are al ways apparently contented and ready for edly they gain some faster. Mr. Forrester's babtedly they gain some faster. Mr. Forrester's base-
ment stables are not of a suitable form to divide up mor loose feeding, but he thinks seriously of adjusting them for that purpose.
We might add that when Mr. Forrester was in
Scotland a few years ago he looked into the Scottand a few years ago he looked into the systems
of cattle feeding followed there, and found the plan of fattening cattle loose in compartments followed
by many feeders altogether.


Plan or mr. Wm. murdock's bisement, showing
pens where tu sters were fed loosk.
has fed 18 steers tied in double stalls, so that he has had a fair chance to estimate the relative advantages of the two systems. The pens in which
the loose cattle are fed are floored with cement They are furnished with water in each pen, and feeding mangers on two sides. The mangers of the
old stalls, which were seven feet wide, old stalls, which were seven feet wide, are each
divided into three compartments, divided into three compartments, separated only cannot crowd the weaker ones away from the feed. The mangers are about 30 inches high, so that the feed is easily put in from the passage. cold weather they were put in at the approach of and ensilage, with a light allowance and straw grain. The hay and straw were mind of crushed parts and put into the mangers first. The equal as mixed with the ensilage, along wirst. The chop of water, twelve hours before feeding. This softened the $\underset{\text { were thus }}{\text { grandicles, which }}$ digestible. At the commencement each beast received 20 to 25 pounds of ensilage mixed with four pounds of
bran and chopped oats in equal parts. This was placed in the mangers on top of the cut straw and hay. With the feed was mixed half an
ounce of salt for each animal daily. The ensilage was increased up to almost 30 ration to 10 pounds per day by New Year's, and then the
grain consisted of three grain consisted of three
pounds of corn, one of peas pounds of corn, one of peas
and six of oats. Mr. Mur dock considers corn mor economical than peas at the prevailing prices, but as the
peas he used were broken and buggy, he could not sell them to advantage He is also favorable to bran
feeding - especially in the

Feeding Cattle Loose in Pens of Five. r. D. A. Forrester, of huron co

It is but a very steers in loose boxes was commenced in the Rockland, Ont believe Mr. W. C. Edwards, M. P advantages, and the plan the first to discover its and adopted by other progressive spirits, until tod day we find the system growing in favor in almost every is perhaps no county-raising is engaged in. good cattle are fattened than in Huron, and there we find loose feeding rapidly coming into vogue Near the town of Clinton is Mr. D. A. Forrester's
farm, from which he delivered, head of nicely finished beeves. The June were shipped 89
by E. Watson, of Blyth. Forty of them by E. Watson, of Blyth. Forty of them had
been fed loose in pens, and 49 been fed loose in pens, and 49
tied in stalls. The loose lot were kept in bunches of five in the pens, the plan of which we show eight pens was planned bund of eight for loose feeding two years ago. The pens are each 15 feet
square. The passage down the square. The passage down the
center is $4 \frac{1}{2}$ feet wide, floored with cement, which is raised 2 feet above where the cattle stand $2 \frac{1}{2}$ This passage forms the manger
for the cattle on both sides. They
were fed from were fed from a truck which is

room. The feed consisted largely of corn in the was mixed cut straw, which. With the ensilage was mixed cut straw, which was given morning
and evening, along with $6 \frac{1}{2}$ pounds per day of corn chop, with a a light admith 61 pounds per day of corr
January 15th. They also reo oat chop after noons, and drank at their pleasure fover hat troughs, which were supplied py a wind from the
Above the pens is a loft, which is filled with punp. were kept well bedded, and the pens were cleatned

Forty-four Steers Fed Loose -.. Bedding Not Used.
The plan we give of Mr. Wm. Murdock's cat where clearly the arrangement of the rep Each of the two pens is winters fed steers loose Each of the two pens is 28 by 42 feet , and suf
ficient to accommodate 22 head. Mr. Murdock arly part of the season cleaned out once a weedded for the first month, and no bedding for a time, but the cement flocerived Mr. Murdock a day and cleaned out once a day farm of 100 acres is not large use bedding, but his sufficient straw. During the last six weeks furnish were bedded with cut straw, which gave them 18 head of tied cattle were were heing shipped The as the loose ones, but they received water only once a day and that when they wereived water only
On February 3rd, 52 head turned out. On April 5th, 40 of those fit of the cattle were sold. On April 5th, 40 of those fit to ship were selected
out from the entire herd. Of the 44 34 were chosen and hix were selected from animals tied up. That is, about 75 per cent. of the looseonly $33 \pm$ per cent. of the tied ones were equali, when
finished finished. The lots were very uniform when put in and were fed alike, but Mr. Murdock attributes tied ones to their free access to water at at over the He claimed that when the cattle were in one month he could plainly see the loose cattle doing better. week in May, a well-finished lot. They the last heavy cattle, but well finished, weighing were not of 1,250 pounds. Mr. Murdock is so well pleased his loose-feeding pens for the contends to enlarge feed all his beefing cattle in that wayter, and greatly in favor of ensilage, and is growing 14
acres of Leaming and Butler

Loose feeding pavor dent corn for his silo. Near the farm of Mr Mr AFTER A TRIAL. John Kitchen \& Son. For lack of stall Messrs. Messrs. Kitchen fed six head of steers loose in considered too crowded 18 feet. The cattle were head occupied the bod, and last winter just three
tied. Their feed while 14 head were fed tied: Their feed consisted, while of well-cobbed were fed and cut straw, half of each by bulk, and a mixture
of oats, barley and chop. Each beast received four
pounds of chop per day at the commencement, pocreased to ten pounds as the season advanced.
They were turned out to water once each day. Messrs. Ki winter the cattle last winter, the first going about the middle of May. They were in nice thriving condition to commence with, and averaged about 1,300 pounds when shipped.eeding capacity, and put water in the stables in the near future. They will not,

## FARM.

Michigan State Agricultural College Visited by North Middlesex (Ontario) Farmers' Institute.
Within the last few years the farmers over the najor part of Ontario have had an opportunity, hrough the excursions arranged by the Farmers nstitutes, of visiting the Agricultural College and Experimental Farm at Guelph, Ont. During the month of June, 1898, some within the last few eeks the place has been thronged with visitors, hich is doing a very great deal to popularize the astitution and break down groundess prejudices hat many persons have held concerning it.
The Farmers' Institute of North Middlesex, P. Zavitz, this season conceived the idea of visitg the Michigan State College and Farm on June $2 \mathrm{nd}^{2}$ with the purpose of picking up, if possible, na, helpful ideas. Some 650 persons, including a ew ladies, took advantage of the occasion, and arrived at Lansing about noon, and had till 7.15 to xamine the various departments and reach the tation for the return trip. The College farm em baces 676 acres. The lawns and buiding sites, the ardens and orchards, cover 114 acerot as foliows rest 220 to systematic rotation crops, and 45 to woodland pasture. The chief eld experiments this year are with fall wheat and ugar beets, but some other lines are receiving ttention. Compared with similar work at the Guelph institution, the Michigan farm falls far hort in detail and extensive effort.
Regarding the live stock kept at the Station w have nothing but praise to offer, so far at least a some of the breeds of cattle are concerned, especially the Shorthoms, Honted by such notable fami lies as Mysies, Victorias and Duchesses, headed by Soyal Mysie, by Double Victor, and hred by Col Harris, of Linwood, Kansas. They are all excellen secimens, of greater size than we are accustomed to see, even in our best herds. The Holsteins in lude some of the most noted cows of the breed, including Rosa Bonheur 5th ( $106{ }_{3}$ pounds of milk in one day), and three of her daughters, Houwlje D. 3.45 pounds butter in one day and 533.2 pouns Sarcastic ( $\mathbf{0 6}$ pounds butter in one day and 841.90 ounds in one year) and three of her daughters. We were informed also that five of the Holstein a year. This breed is headed by the stock bulls Colantha Lad and Maurice Bonheur. The Jerseys rare breeding and promise, recently purchased at rare breeding and promise, recently purchased at
the dispersion sale of Mr. T. S. Cooper, Coopers-
burg, Pa. The cows are an exceedingly fine lot,
and are descended from Pogis Baron, by Pedro's nd are descended from Pogis Baron, 29 pounds of Stoke Pogis. As high a recorimed for some of the
butter in twelve months is claimer
Jerseys. Other pure breeds represented are Brown Jerseys. Other pure breeds represented are Brown Swiss, Aberdeen-Angus, Galloway, and red
The Station also supports and is experimenting
with a herd of 30 general purpose cows. They are Thith a herd of 30 general purpose cows. They are ype. They were selected throughout the Stat from farmers, and the first year were made to pro-
duce an average of 300 pounds of butter. Owning to
the lack of a proper pasture near the barns, these cows are being soiled on corn ensilage, which will cows are being soiled on corn ensilage, which kept housed in Bid well stalls during hot days and turned into a small grass plot at
bred to the Shorthorn bull.
The hogs kept on the farm are Poland-China worth. We did not learn of any definite exper mental work being conducted with the hogs. They
are fed on skim milk, corn meal and middlings, with pastur
The poultry department, referred to elsewhere some very fine specimens of various breeds are insome very fine specimens of various breeds are m-
cluded in the flocks. The apiary department seemed
to be in a flourishing condition, and is conducted
along the line of experimental work and in connec-
tion with the lectures to the students. The dairy department is a small affair compared with the it is because Michigan is not particularly a dairy
State that comparatively little attention is devoted to that subject at the State College of Agriculture sented the appearance of being in a good state of sented the appearance of being in a good state of
cultivation, but the dry weather that has prevailed
for several weeks was telling heavily on the spring for several weeks was telling heavily on the spring
crops and pastures. The sheep flock includes specimens of Hampshires, Shropshires, Oxfords, Suffolks, Cotswolds,
Dorsets, and Merinos. We judge from their appear ance that the farm is not particularly suitable fo the various breeds were seen. The produce of a Merino-Shropshire cross much resembled the former in color and form, and a H
On the whole the stock presented a very creditable appearance. With the exception of the three breeds of cattle we have especially mentione, and stock loses nothing by comparison, while it has a much fuller list of the best recognized breeds.

The Michigan Agricultural College was formally opened on May 13, 1857, and claims Fo be tme seven or eight years it led a precarious existence, being dependent on the bounty of the State Legislature; but, fortunately, it was placed on a solid founda
tion by the national land grant of 1862 This ention by the national into a large interest-bearing fund, rendering the College practically independent of the State for its running expenses. In this reAgect it has an immense adivantage over the ontural College, which is entirely supported Agricue Provincial Governiment. The Michigan State Legislature, however, has continued to do gener-
ously by its State College. It has provided building and apparatus at an outlay of some $\$ 500,000$, and for the current year the State appropriation reaches $\$ 140,000$, of which $\$ 83,000$ goes for a new
women's building, and $\$ 12,000$ towards furnishing the same. The sum of $\$ 10,000$ is given for repairing buildings, $\$ 15,000$ to wards the dairy school, $\$ 4,000$ for the farm barn, $\$ 5,000$ for student labor, $\$ 2,500$ or improved heating, and the balance for mino purposes. The College gets this handsome sum o $\$ 100,000$ annually), which, as previously stated come out of a national endowment fund. This is
very liberal treatment, indeed, when it is considered very liberal treatment, indeed, when agricultural appropriation for On tario this year is $\$ 204,217$, of which only $\$ 51,267$ goes to the Guelph College for current expenditure
while the outlay on capital account. this year is only \$4,110.
The Lansing College covers a wider range of
instruction than the Ontario institution, the agri instruction than the course being supplemented by the mechan cultural course being supplemented by the mechanlatter department particular emphasis is laid on the study of mathematics, the study of theoretical principles undertichenstructing machines. The equip-
the practice of conder ment is admirable, the carpenter shops, boile apartments attracting much attention. This course School of Practical Science, and is not considered there as a necessary complement to the work of an feature of the Michigan institution which has no parallel at Guelph. It was inaugurated three years ago, and has proved very successful, the attendance inadequate, and the State Legislature, as already
mentioned, has provided amply for a new building. The young women are instructed in domestic science and household economy, and at the sam guages, literature, and the usual accomplishment of a regular ladies seminary. It will be seen fron all this that the Michigan Agnucution, and by no very broad in its scheme of edication, antical agri-
means confines itself to scientific and praction
culture. Of the students entering last year, their culture. Of the students entering last year, thei
proposed occupations after leaving college are given proposed occupations after leaving Farming, 45; mechanical engineering, 53 ; teaching, 32; electrical engineering, 4; phys
cians, 2; law, 2; not fully decided, 106 . The College enrollment has nearly doubled in the past thre years, the num average cost to the pupil for the agricultural course is estimated at from $\$ 140$ to $\$ 17$. per year, including uniform. money by working for in student cares to earn money by working for
the College. Many do this, and labor during vacation to aid in paying for their education. It is
estimated that this summer $\$ 2,000$ will be paid to
students in the institution is well officered, and other good men are being looked for. We were favored in
being escorted hy Prof. Herbert W. Mumford, the newly-appointed Professor of Agriculture, who has for four years acted in the capacity of Professor of
Animal Husbandry. President J. L. Snyder and Anofessor Town also accompanied the excursionists
about the farm. Among the Ontario guests of the about the farm. Among the Ontario guests of the
party were the Ho. John Dryden, M. P. P.; Mr. H.
J. Pettypiece, M. P. P.; Mr. Wm. Taylor, M. P.; and Mr. V. Ratz, M. P. It was expected that
State Governor Pingree would receive the excur-
sionists, but he was unable to be at the Capital.

## Prof. Robertson at Brandon.

Commissioner of Agriculture and Dairying, addressed a meeting of the Brandon Farmers' Institute on June 6th. The attendance was not very large, doubtless owing to bad roads. Prof. Robertso spoke on beed selec tion, much along the same lines as in his address before the Agncuprsis of which appered in the Commons, a synopsis of May 15th. He first referred to the fact that the average yield and quality of the crops, not only of this Province, but of Canada, were showing a slight decrease, whereas in Britain the average yields are now 30 per cent. higher than they were 30 years ago, and in France they are 40 per cent. higher than they were 40 years ago. It is not now as easy to farm successfully as it used to be, owing to partially exhausted soil, increasing weeds, and greater injury from plant diseases and insect attacks. The caus

## yields could be summed up as owing to

(1) An insufficient supply of moisture, which to ome extenter in the first five inches of soil will largely control the amount of moisture which the soil will retain. Vegetable matter can be supplied in the form of barnyard manure or by seeding down and supplying vegetable matter in the grass roots.
(2) Unfavorable temperature of the soil, a condition largely under control. Rapid evaporation cools the land. Evaporation is more rapid from a ingecking evaporation and thus makes the soi , cher. For this reason the Professor would roll and a few days after seeding to give the seeds a better chance, following with a light harrow jus when the crop is up in order to retain moisture and to kill weeds. For the most rapid germination of seeds and growth of the young plants too much attention can not be given to the preparation o with a soil mulch of an inch or an inch and a hal of fine, loose soil on the surface.
(3) Lack of suitable plant food for the young (4) Lack of inherited vigor in the quality of the seed. The quality of the seed depends on the as to
from which it came. Seed should be pure as variecy, as well as free from weeds and other seeds Large, heavy seed germinates mond
After enlarging upon these points, he referred to the two great processes of plant growth, tha stems, and loaves-and that which produces seeds
and fruit. This principle should be thoroughly understood and the plant supplied with the kind o food required at each stage of its growth. In speaking of the selection of seed he strongly urged
the importance of selecting the best seed of the arieties that have proved themselves best suited largest-yielding and most perfect plants, and then,
with fanning perfect seed. This system followed up would give better results than changing seed, as in changing seed there is nothing to be gained. Once find
variety suited to the locality, stay with it, and the
longer it is grown on the same farm, under the longer it is grown on the same farm, under th
proper conditions and always from carefull proper conditions and always from carefull quality. And Prof. Robertson contended that in five years under this system the yield of grain in
Manitoba would be increased from 20 to 30 per cent Mr. Bedford, being called upon, corroborated
what what the Professor had said as to the beneits
selecting seed. On the Experimental Farm they had not changed their Red Fyfe wheat, and th ing, and it stood at the top of the list of varieties. The seed of the Banner oats had been obtained ten years ago, and had notbeen changed, but had alway carefully selected. Their Banner oats were better in yield and quatity now than ever, and were at the head of the list. The first five years average was was 90 bushels. Nearly all varieties that were poor
yielders in the early years of the farm work were yielders in the early years of the farm work were
poor yielders still, and vice versa. He did not conditions for growth and proper seed selection Dr. Thompson, V. S., Carberry, who has been
several times a prizewiner with his Red Fyfe several times a prizewinner with his Red Fyfe
wheat at the Winnipeg Industrial, said that he had wheat at the Winnipeg Industrial, said that he had
not changed his seed for fifteen years, and it was
better to day than at first. He always took the better to day than at first. He always took the
greatest care in selecting his seed and put special greatest care in selecting his seed and put special
stress on the importance of allowing the grain
intended for seed to become thoroughly ripened intended for seed to become thoroughly ripened
before cutting. He believed in the principle of rolling land, but on account of the liability of
rolled land to drift he did not use the roller, but rolled land to drift he did not use the roller, but
used the press wheels on his seeders and would not
think of using a seeder without. Their use made think of using a seeder without. Their use made

DAIRY.

## Milk Testing at Factories.

To the Editor Farmirr's Advocatr:
Sour liast isean the fog ingorn blast of T. B. Soott in
 that is found in the skium milk returned top patrons
trom the buterer foctories.
The point made in Prot trom thit butter taitories, Thit point made in Prof.
Dordins retrend
orinct
Pee To asert that all men are honest, or that any


 hence hank books are kept ty depositiors, and at
 would not be "suspoicious and distrtustsusine now who by the great manjoristy bisiness transactions would In all business transactio

 tions betweent patrons and the proprietors of nctories
In most cases of hargain and sale the buyer and speaking, the patrons of boutter or ohe chese fenerally are not for the reaso thatt in the keeping of the scecount a special and scientific instroment and many patrons in a position to employ a disinter-
ested party to keep the aco ested party to keep the toino wo t.
wheroby thean an an suggest any practical method
 tory managerr are in inompetent and disishonest., the method in orogue of keeping the account hanest, greate hoo inp vogue of keeping the accounts is too

 sonal beneft.
Dean por antrons of butter factories look to Prof. Deathor of remedy tor the present unsetisfatatory
the poarties pyyin

 ${ }^{5}$ Klgin Co., June 2nad

## POULTRY.

## A Canadian Poultrywoman's Visit to the

 Michigan State College Poultry Yards.About the middle of the afternion of June 22nd, Institute excursion to the Michigan Agricultural College, we found our way to the brooder houses and experimental yards. The heat was intense, tion. TTe attendants were absent a careful inspec-
more information might more information might have been obtained. We
found an ieal situation-sandy soil on a southern slope. The houses, or rather sone housse divided into several compartments, was builte dithided
lower side at the north and large windows in the lower side at the north and large windows in the
highest wall at the south. Roomy yards extend were partially covered with this building. These afford plentiful shade in spite of the absence of trees or shrubs. The first room contained a large
brooder with clean straw for bedding, which the
chick ehicks occupy at night, presumeding, which the
mixed lot and they did
not strike ore tey were a mixed lot and they did not strike one as particu-
larly healthy; in fact $I$ felt strongly tempted to capture the worst of them the strongly tempted to
Their food was small grain in ant for parasites.
 same grain in liter, for chickens a aoy old whill
scrater for food. In the the next compartment were a
different style of brooder different style of broodex and arter argert werere a
many of whick shons, many of which showed the mark ingrof purnickens, Brown
leghiorns. Another compartment was fited up for
laying hens, with only one laying hens, with only one stupid-looking Buff shan rooster appeared to be mothering a brood of
well-grown chicken From the brooder
trotting is scarceller a house we trotted offe, but teisurely walk was almost too much, for weather so
hot, but we found the hot, but we found the poultry building proper.
Here everything was cool and comfortable, as there
were plenty of were plenty of swad coor trees. Womfortable, as there found everythere
bright with whitewash, and all the useful, com.
bined with fashionhsh
 sented, and there were soune very fine sere recimene-
among them. The pens each contained about one
male and five or six fese male and five or six females, and were on each side
of a passage and
outh of the thed into yards both north and

being confined when we called, the other half
the pens being opened. the pens being opened. They made a pretty
picture; the full-blooded beanties, Rocks-Whit and Berred, Wyandottes- Seativer, Rocks - Whacd, Ghiten,
and White, being my favorites, though several and White, heing my favorites, though severn
other of fashion's fatovites were represented. The grounds of the Michigan Experimental Red Cedar River), , ponds, and also hydrants from tef city waterworks, but 1 failed to find any trace
of wate fowls, though they may have been a some distance from the other may have been at I suppose
comparisons between Canadian and American, or comparisions betwen Canadian and American, or
Ontario and Michigan, poultry yards are unneces.
sary, though a visit to our always make us discontented with our own yards. But it will well repay us at any time, ewn yardis,
raise only one dozens chickens each yeare to wis raise only one dozens chickens each year, to visit
and study as many poultry farms as come within
our reach

## APIARY.

## Summer and Fall Work in the Apiary

 A Manitoban's System.A question that will very soon begin to agitate
the mind of the incipient apiarist, if it has not already caused him serious loss of sleep, is, When may I Iegin to use the extractor? Thiop, is, when yield a considerable quantity of one hive may another has taken in more than enough for its im. mediate wants.
extracted until the combs are full should not be Until then they say combs are full and capped. is alsoro true in thaterior article. While this is is true, it open tinus, this untiture exposure to the air in large,
be distinguished from becomes ripe, and cann be distinguished form capped hones ripe, and can extracted on
the same date; so when honey is beind the same date, so when honey is beinex brouted ont in
freeely, we onsult tur convenience and the state
the weather the weather oull, emporingen capee and the state of
and wholly uncapped combse and whoolly uncurapped compting capped, and purtty capped
all together in the honey which holds when full about 300 pos in diameter, and has no other whever thal about 300 pounds. This tank
keep out dust, and in it ath sufficiently fine to Keep out dust, and in it the ripening process seems
to be accomet to be accomplished fully as weel asing in trocesss seems of
course any honey of inferior quality or color is kept course anat.
ser the
when the bees arate too busy to notice what is chosen, done. On such a day, too, the honce is mot is being
thrown from the combs. As rune the best hives once a week during the height from honey season. Of course, if one hasplenty of combs,
he may simply remove from the hives those that are full and capped, putting empty ones in their For uncapping the combsa knife made at leisure for that purpose is required. Beginners may think season. But a grood extractor may be hat the first or even. But a good extractor may be had for ten ten
that is allt hat is nars, and a honey knife for one; that is all that is necessanc to gather the first year's
harvest; and in a favorable one colony and its a favarable season the honey yoar's
I find that my fils will easily pay the cost I find that my figures given in a former issue cost.
the vield of the the yield of the last two seasons-143 mers. per colony
in 97 and 110 in 98 have been taken by beekeepers in other places with considerable salt. But those figures were right, nevertheless. This is wh those
colonies of whit. colonies, of which I took particular account, did
last summer. They each threw off two swarms last summer. They each threw off two swarms (one
first swarm of which f failed to secure), and rolled
up the very creditable tole up the very creditabhe total of to seure), and rolled
forty-six pounds of hundred forty-six pounds of honey-with the hundred and
their progeny, of counce of their progeny, of course. At twelve and and a half hat
cents per pound this gives $\$ 30.75$, less say $\$ 1.75$ cost
of sugar fed to them for of sugar fed to them for winter, less a say $\$ 1.75$ cost
$\$ 14.50$ per colony, to say nothing of \$1.50 per colony, to say nother, or or a net return
As the work of extracting goes on the swarms. to keep the question of wingoes on it is important weak and hack question of wintering in mind. All All
this time. The ard colonies should be cared for this time. The condition of severy be cared for at
known, and steps taken to known, and steps taken to have it in ine shood shape for
winter when the honey flow ceases. be done successfully after that. ceases. It can scarcely
should be done should be done immediately after, beding thay and date. Directions for uniting swar to at an earlier in all reliable modern books on beekeeping be found simple matter, though even in it circumstances ita may take to fighting, with the the two parties awaits a house dividided, with the result that ever
it successfully in thin then itself. I have done bees aressallily, in this way: After dark, when thene hive No. 1 up beside hive the
where it may be lat coole evening oce ours. Then lift or ar a weeke, until 2 a hes on them from hive No. , and and ombe whith the
hive No. behind the division-board. Place in
on the stand of No on the stand of No. 2, and the thing is. Plone. If the 1 evening is cool the chances are that the bees the
huddle on the combs till morning, and will go on smoothly. If, howorning, anter everything
or so they are found to be fighting half an hour of honey in the found to be for figting, spill a hanho hour
and ends The fing it run down the sides
Iools
 tell " one from tother or other from which., able to
next day the division board may be removed and
the combs moved up together bof
queens will fight it out when they meet, and th As soon as the harvest is over-that is when ceases to come in such quantities as make it worth while to extract-the hives should be contracted by well. These should be left in the front or centeren the hive and and division-board tlaced behind them ing may be left for a day or so in the back ox of thet not at least 25 pounds of honey, they should at ance
be fed. a the be fed either as syrup or as candy. The This may made by dissolving twenty pounds of surup is about one gallon of boiling wauter.
syrup there are a tho feos feeding syrup there are a thousand and one onts of feeding
advertised, but anyone can make his advertised, but anyone can make his own, if, indeed,
he has not something ready made that he has not something ready made that will seere,
the purpose. We use boxes-made water-tight, of course-ten inchess square and four deep. In in one of
these we put as many punds of
 shingle to ensure the bees against drowning of place it after nightfall in the hive, either above, or, ing the bees will have it all stored away. If the be given the following evening. Twenty-five pound of stores is as little as it is safe to winter on, and it
would be wise lost. If If feeding is delayed till cool weather sets in, it the syrup offered them, most likely the weaker colonies, which require it most. It would then be
better t an ordinary comb frame, and so made to solidify in What the feding is done remove the supers, and see to prevent as much as possible the escape of warmth
from the from the nest.
and dry, and benches se seen to, too, and made clean provided to set the hives on. When whes high come to stay, the hives should be carried down hand placed with alighting-boards projecting over the which. have to be closed when moving entrances, and if the temperature of the cellaring is likely hives above freezing, and there is no dar, say ten degrees covers may be removed and a woollen of mice, the tuted. If the covers must be retained ith substi sary to provide the hives in some way with ventila the cellar; and a cheap and wholesom peovided for is to place a quantity of quicklime on precautio The best thing to do next isuleave them alone till the willow buds begin to burst.
Red River Valley.

## Union Beekeepers' Convention.

## Coninued from pape s.s9,

what stage should honey be extracted? being exported, it was deemed quantities of honey every precauion should be taken to prevent inferi-
or honey going to market, and to as ponselible aill that is produced, as it it is the as an far
of such of such p products that produced, as it is the quality
this end all honey the demand. To this end all honets thauld regulates the demand. To
fore being extracted and of rank, unripened flavor. At it liable to be thin best beekeepers make a rule of allowing the combs
to become trem to become from two-thirds to threowing the combs
before throwing it ours capped is usually fairly well ripened, some careful men stage not relly on thisis well ripened, some careful men do
claimed that on alone. Mr. Holterm alone claime apat the honey should present a shiny,
glossy apearance in the cell before being taky,
from the hive glossy appearance in the cell beforesent being saken
from the hive to be extracted. Mr Heing
the weigh the weight of the be entracted. Mr. Heise goes by
ready to extract he thros huise. When he is ready to extract he throws out the honey from ha
couple of the the the the caped coms and weighs it. If
the honey weighs less than
 to further ripen before extedracting mot, and is allowed
honey will go as high as 13 pounds.
Whemetimes thicken hone is extracted too thin it will usually in a warm room, but it is tettell if left uncovered How should hone being taken from the hive. The important thing to tod, and where?
aroma, whichtant when ung to preserve in honey is
liable to be lost hecandul exposed or agitated, is liable to be lost because of its volatile or agitated, is atmosphertant that honey be not exponed to moitst will become thin and watery. It
therefore she therefore should be kept where there is artificial heat or where a goood deal of sunlight is strikiticia in
during the day and warms the room stion claimed he always retains the room. Mr. Mille not exposing the retains the fine aroma best by
practice to seal up the hy. It is considered good practice to seal up honey. It is considered good
as soon as extractey while it is yet warm as soon as extracted. Oney member find is yet warm
in storing in cans of 300 to 4 taction covering with iths of 300 to 400 pounds sapacaisacty, and
string or tid 4 or 4 plies of paper held
 the honey in large canser plan expresessed is to keep
in a warm room for four or five dath cheese cloth
it off into in a warm room for four or five days, and theene cloth
it orf into 8 Bopound cans, which are saeded up and
kept so until marketed. The main pointsin
ripe honey seem to be to keep it in sealed cans in a
warm, clean room. Honey that is too thin should warm, left uncovered in a warm. pure atmosphere until it reaches the proper consistency.
Where should combs be kept after the extracting seascn?
Combs should be stored so as not to become
infested with moths, nor become moldy. Mr. Miller generally keeps them in stacks in his honey room.
He puts a cover on them and smokes them well with sulphur. Some leave the combs in the super at the top with cloth or paper and the top put on so as to be moth proof, and are stored away in a dry, moderate temperature. If stored in a cellar they moths frequently get in their work of egg-laying when the combs are left exposed over night after being extracted. They should, therefore, be re turned to the supers or ot
What is the best way to have the bees clean up he comb ?
When there is a little light colored honey remaining in the combs, it is not important to have
it cleaned out, but buckwheat honey in all cases should be thoroughly cleaned out in order to pre-
vent its tainting or coloring the next season's light vent its tainting or coloring the next season's light out by the bees by setting the extracted supers the open yard was referred to as a good means of scattering foul brood throughout the entire bee yard, provided one or more colonies were affected
with the disease. This, Mr. Holtermann considered too great a risk to run, since one might easily have
foul brood in the yard without knowing it. The plan which he suggested is to move the extracted uper over simply one hive, which would lessen the
hances of distributing foul brood to a minimum.

## VETERINARY

The New Cure for Milk Fever. Some months ago the Farmer's Advocate published a statement regarding the German, or the Farmer's Gazette, of Ireland, gives the following y written to us for instructions as how to use th odide of potassium, recommended in these column some months ago as a cure for milk fever in cows. For the information of the querists in question, as d, we now repeat the gist of the information alread given on this subject. The "new cure," as it has ow come to be described, consists in the injection The first thing to do is to obtain some clear warm water and to add to it a little Sanitas, or other dis nfectant, and then thoroughly sponge the udder with it. About fifty grains of iodide of potassium
should then be taken and dissolved in one and a half pints of water prepared by first heating it to the boiling point and then allowing it to cool down un il it reaches $100^{\circ} \mathrm{F}$. It is at this stage that the iodide with a teat syphon fitted should then be procured nd immersed in boiling water in order to render it perfectly clean, as if proper precautions are not may be brought about. The syringe, after being duly olution and one fourth of the quantity specified he injection the udder will usually be found afte become full and hard; when this is the case a little nilk should be gently drawn, but the whole content eterinarian, who has had abstracted. A Scottish with this treatment, and whorecently communicated some interesting details of his experiences to one of directly after the injecton into the udder of the iodid potassium- of 2 lbs . of treacle and a pint of castor nends, hin two quarts of warm ale. This he recom mends, however, only where the animal is conscious;
if insensible, no attempt should be made to administer anything, but the animal should be trussed and so as to rest on her breast bone and abdomen, and should then be left alone until sensibility re to offer the affected animal some small quantities o cold water to drink at frequent intervals, and whe portions of any kind of food she relishe her smal eaving the calf with her for five or six days, or fail g in this, to take small quantities of milk from he three or four times a day, but on no account to re
move all the milk from the udder at once before five In six days elapse after calving."
we referred to two cases of milk fever that were uccessfully treated by the new treatment by Dr he Doctor has met with ten pronounced cases, bringing them all successfully through the disease,
and all but one of them has made complete recovery. The exceptional case so far recovered as pparently doing well, when her owner adminiswhich, it is supposed, caused complications that which, it is supposed, caused complications that
robbed her of life and her owner of a cow. Of the
swelve cows treated by the Doctor with the potas one exception, down and helpless when he reached before the injection was given or as soon after as possible of the injected medicine would make it possile. cevery case stimulants are used in the form of
whiskey, with nux vomica or whiskey, with nux vomica or other drug. The cows were all milked out as soon as reached and
the udder injected. Great precaution is taken not to give the cow anything whatever for six hours after the injection. At the end of ten hours the udders of the cows were again milked out
and injected. This is all the treatment that he now uses, and it is proving to be all that is necessary. The cases have all gotten onto their one exception made a rapid recovery. We interand found them very sanguine over the new system, as they had invariably lost several previous cew days bofore calving, and one of milked for a few days before calving, and orn
disease before her calf was born

## GARDEN AND ORCHARD.

## The San Jose Scale Commission

The commission appointed by the Ontario Gov ernment, consisting of Dr. Jas. Mils, President of the Agricultural College, Guelph; Mr. John Dear ness, I. P. A., London, ex President of the Ontari Entomological Society, and Mr. W. H. Bunting, a well-known fruit-grower of St. Catharines, opened the-Lake Ont on Tueeday the 20th inst This the center of one of the two largest known areas of in festation, the other being in the County of Kent The Niagara deputation, in its memorial to the Government, urged that the operation of the Act is unjust
(1) Because the orchards are being destroyed without adequate compensation; that it is impossible (2) For the staff, or even one many times as large (3) Thet the vast uner (3) That birds, winds and other agencies are dis discovering it
That it is rampant in the adjoining part of New York State.
The commissioners examined between 20 and 25 witnesses at this point, the evidence being taken upon oath. Without any exception, the witnesse held that the compensation is not nearly sufficient Some had received 50 cents on an average for chea trees, and $\$ 2$ for apple trees. Mr. Hutchison ha lost 2,500 trees, and 1,00 about $\$ 1,150$; Mr. T A. Stewart, $\mathbf{M r}$ Nelles 1,10 , and received was about the burning them. Mr. Benn testified that it took team and three men three weeks and four days to clean off a plot of loss of his trees his property had depreciated so much that for one of his places, for which two years ago he had refused $\$ 7,000$, he
would gladly give it to anyone now who would would glady give it to anyon
take it at the mortgage of $\$ 3,050$
The majority of the witnesses declared their damage the insect itself has not produced serious dread it so much as the yellows or rosette and that with very few exceptions it had produced no per-
ceptible effects on trees of any kind. Mr. G. B Wilson would defy any man to prove that a singl trict. Mr. Green said he believed some trees ha been killed by the scale in an orchard adjoining his.
Mr. Healey had seen trees that he thought were Mr. Healey had seen
dying from some cause
There was pretty unanimous agreement that th present staff of twelve inspectors working in the Mownship of Niagara cout in hiser overtake the scale. Mr. Benn testified that in his orchard single apple
trees had taken a man half a day, and at that rate he calculated that it would take the staff 400 days to inspect the apple trees in the township, not to speak of the greater number of peach, plum
cherries, and other kinds of fruit trees.
As to the question whether it establishes itself
on other shrubs and trees than those usually culti on other shrubs and trees than those usually culti-
vated in the orchard, no evidence was given to show that it has been found on any others except black currant bushes. Mr. Green had seen the latter killed, he thought, by the San José scale.
No witnesses offered personal knowledge of its presence apart from tracing it by nursery stock, of the means of its distribution. It was suggested that it may be carried by winds and by birds. Severa season when the young scales are moving-from hem from tree to tree on their hands and clothing. The commissioners, after viewing a number of affected orchards, wila

SHOWS AND SHOWING.

## Fairs of 1899

## Winnipeg Exhibition, Winnipeg.

 Stanstead Live Stock Stanste... Stanstead Live Stock, Stanstead, Que..Aug.23, 24.Industrial Exhibition, Toronto...Aug. 28 to Sept. 9.
Dundas County, Morrisburg. ....... Aug. 29 to 31 . July 10 to 15. Castern Exhibition Sherg. ....... Aug. 29 to 31. Westeigin, St. Thomas, Ont South South Lanark, Perth, Ont. New Brunswick Provincial, St. John Central Canada, Ottawa. $\mathbf{W}$ Wellesley \& N. Easthope, Wey Owen Sound, Owen Sound $\underset{\text { Southern Brante District, Belleville }}{ }$ West Middlesex Union, Strathroy Northern, Walkerton
Central, Guelph
Great Northern, Collingwoo
North Oxford, Woodstock Nova Scotia Provincial, Halifax, N. S Center Brant, Paris.... Haldimand County, Cayuga Central, Peterborough.
North Simcoe, Stayner. Northwestern, Goderich Peninsular, Chatham North Lanark, Almonte. Center Wellington, Fergus. South Renfrew, Renfrew North Perth, , Stratford. North Renfrew, Beachburg
South Norwich, Otterville South Norwich, Otterville "World's" Fair, Rockton
Norfolk Union, Simcoe. .

united states.
Ohio State, Columbus, Ohio New York State, Syracuse,
Cambridge, Cambridge, N. Monroe County, Stroudsbury, Pa Inter-State, Trenton, N. J.............
Michigan State, Grand Rapids, Mich. Michigan State, Grand Rap
Illinois state, Springfield, 11 St. Louis, St. Louis, Mo.
 Sept. 4 to 8 [Note.-If Secretaries of fair boan...Oct. ${ }^{25} 2, \quad 30$ dates of their shows we will include them in list of
succeeding issues of FARMER's ADvocete

QUESTIONS AND ANSWERS.



## Veterinary

## stringhalt.

Subscriber, Assa.:-"Please answer the follow ing inquiry : 1. Is stringhalt in horses an unsound [1. Yes. 2. Confirmed or chronic stringhalt is incurable, but when aggravated by the presence of
bone spavin, or any other local lesion of the limb which would cause irritation or undue pressur the nerves, the proper treatment of the latter will sometimes greatly relieve the spasmodic action of disease, but it is not wise to breed from an animal that is
R. R., Roden, Man.:-"Please advise me as cause and treatment or the following: 1. A heavy three months before she should have foaled, when she took sick. She appeared heavy in foal, but had and was very weak while walking for about a week. This continued until her belly drew up so Then while she was feeding she lay down and die without a struggle. She was very fat. 2. Also could you tell me how to bring up a colt when its mother has no milk for it? What is the reason a mare somet
[Dropsy of the womb, technically called hydrops uteri, occasionally follows copulation and simu lates pregnancy. It may be due to what is some instead of developing into a normal foetus, pro duces either a fleshy mass called a "mole," a aterine kyst, or dropsy of the womb. The pathol The condition may also be due to disease of the womb. The treatment (providing a correct diag consists in sufficiently is impiating the mouth of the Themb so that the contained fluid will freely escape The womb should then be injected daily, for a few
days, with creoline one part to forty parts water

Give, internally, one dram iodide of iron, morning
and evening, for one week. Keep the lowels open with wholesome laxative water, one part; fresh cow's milk, four parts-is the best available substitute for mare's milk, and
until the foal is three or four months should be fed at hlood heat. For the first week o two it is necessary to feed the little animal fre quently, say every hour and a half or two hours and, as it becomes older, gradually decrease the number of feeds until three or four times a day
will suffice. If there is a deficient secretion of
milk at the time of parturition the mammary milk at the time of parturition the mammary
glands may be stimulated to action by warm and feeding the mare succulent, sloppy, milk-pro-

## Miscellaneous

UCERNE CLOVER FOR SEED
J. C. Cox, Huron Co., Ont.:-"Will you be kind enough to tell me which crop in the season best produces lucerne clover for seed? Is it hard to thresh? s it worse than other clover seed for not growing it will not grow if two or three years old." or seed It should be cut when one usually taken brown. An ordinary threshing machine will thresh it, but clover screens have to be used to separate it properly. It is not difficult to thresh when well is fairly well charged with oil, and is therefore not subject to serious degeneration from two or three ears' storing in a dry place. Lucerne will in suitten years.

MARKETS

## FARM GOSSIP.

## Oxford County

We had fine rains some time ago, ard our crops are doing We bost. We have barlee now coming out in head. I am glac
Peeß as a ralte, on it, or it would likel have all gone down eas, as a rule, are not doing so well, but they are inproving We had a iflat thate yieldoed over three tons too wite aere last
year, which at present has no appearane of yieding half that
weight. Pastures are extra. We had to shut the cattle out of woight. Pastures are extra. awe had to shut the cattle out of
one pasture felle, and will now mow it or hay. Oll hay bring
from 7 to 8 . With us our corn is doing remarkably well, but
















Prince Edward Island. We have had a cold season so far. Grass and grain is back-
ward. .The mosto of the month of May was dry, but since June
came in we have had an abundance of rain. Just now we









$\qquad$




from it is not encouraging.
A gentiman from Sury, Ontario, is now trying to rent
or buy 1,000 acres of land bet ween Charlottetown and $S$. Side for buy 1,000 acres of land bet ween Charioteoteown ist his intention, we believe, topurchase
for sheen
sheep and lambs, fatten and ship them to the American mar sheep and lambs, fatten and ship them the the American mar
kets. We arvenot yet heard how he has succeeded. W. s.
June 21 .

Central Eastern Ontario. Since my last report a month ago we have had very little
rain Just now the siol is dried out as thoroughly ais it usually
 cound. Tn many sections about one haif the usual acreage of
corn has been planted. Some of our best farmer have cor-
chence that they cannot raise a full crop of hay atter corn,
hence the verdict, corn must go (7). Peas, oats, and bariey are

 their swine stock.
As this: Cheese is moving forwafd steadily when
fit to ship. Factory patrons are fairly wefl saitifiled with


 cents per pound is the usual tuotation on steens and heifers.
Dowaer dairy cows are nst yet quite ft for the canning
factories. There are legions of them down here. The bottom
 market at 3e. Our farrerers will next year go arrayed in full
colth, since many will not sell heir wool at 13c. the present
ruling price. Mill foed is hardheity to be had, at almost prohibitive prices. Whe hately paid sil per ton for hay hy.ter feeling
On the whole there is, perhaps a lighty better
among our farmers than there was twelve months ago. Busi-
 a portion or Lanark
and cors in its path.
Leeds, June 23 , 99 .

## Manitoba June Crop Report

The June crop report of the Manitoba Department of
Agriculture contains some very interesting figures, showing is attributed not so much to an increased acreage on the pa of individual farmers as to the number of new settlere tha
have located in the Province during 189, the number bein estimated at 2,500 . It is also pointed out that a considerable
amount of the increased area is attributable to the extra amount of the increased area icta at
railway facilities in many districts.


## 1897, 1898, and 1899,

$\qquad$


Total crop, incl'd

## Kent Co., Ont.

The latter part of May aud June to date has been beautiful
wheng weather- - warm and showery - consequently the fall

 ooking unusually fine. There is a larger acreage of the three
former crop and a marked decrease in the average of the
flater which is in keeping with the orice obtained for them
 about the same price. Fat cattle are scarce as s.et, but the
excellent pasture is rapily rounding them into shape, so that
the supply will soon more than meet the deman

 apparently do not think the inspectors understand their, busi-
nees. On the other hand the ninpectors claim they have the
pest prety well eornered and onl requir the assistance
orchard owners to completely stamp it out.

Chatty Stock Letter from Chicago.

## Following table shows own correspondent.

## and <br>  <br> Silieep Wativer.. Yeartrin Lemmbs... <br>  <br> 

Drovers' Telegram, says it was so small it is necessary to go
back to 1892 to find a week that is smaller. Even hoid




 field which hast year were a rich waving mass of of ang. some green
forage ale almost lirely bare, showing only a few spoti
where the hardy plant has survived. The demand in Montana, Dakota, and Wyoming for you
lie id very great and will not be half supplied.
G. S. Switt, the great packer, has lately bought two G. F. Swift, the great packer, has lately bought two great
herds and ranch outtits in Okilihoma and the Panhandeof
Texas He has for many years owned a big ranch outatit in
Colorad.e has
now. The Standard Nebraska-fed rangers, 180 head, 1,211 be
sold at
 firm of Ryan \& Reichandson. Leavenworth. Kapssas, mankete
$1,292-1 b$ branded cattle. which sold at $\$ 5.40$, and one loa
 is ghe hog market is well supplied at present. The demina is generalls good,
quality and liberal supplies.
While wooled, Colorado.fed New Mexican lambs sold up
 82 lbs. A lot of $398114-1 \mathrm{~b}$. Ohio sheep sold at The lambing season in in southern a lood of spring is about over, and laking all in all, has been a most successful one. Ft. Colling
lamb foeders will try their luck the coming jear in feoding
nore wester-bred lambs than usual, unless they can buy New
Mexicans lower.

Toronto Markets.
 4,500 Export Cattle- Trade fairly active. The last of the dis
tillery fed cattle shipped out this week. Stall-fed cattle ar scarce, and command top price. Choice wewt-selected stall-fed
catte sold at an adyance of 10 .
price


 cattle from Chicano, and shipped through this market $v i$
Montreal to Liverpoo.
Butchers' Cattle.-Stall-fed butchers' cattle, equal to ox


 Sickockers. The demand good. Not many on onfier. Choice
i. 1 lots sold for a little over \$4 per ewt. For ordinary run,



 Muality Cours.-A bout 15 cows on offer. Springers sold at
Mile
ron to $\$ 15$ per head, whilst extra good milkers sold up to Hogs.-Se Seral drovers sold their hogs at a loss, caused by
shrinkgas and culling for soft, corn-fed animals. Many of the men posititevel culdeclare that, corn-fed hongs cannot be distin-
cuished. We have endeavored to follow the method of culling guished. We have endeavored to follow the method or colling
and it is not difticult, atter a litte experience, to distinguish
ihoseoming from the western district and those from north
ern Ontario It must
 he excessive supply. We can give very little encouragement,
s the price of bacon on the Liverpool market continues to be
ery tow




 Thought, both hroductory is known as Home Rluler and Happy
tone, Manitoba. He believese that Gladstone Flour Mills, flad.
隹 to the notice of the French and It Ithian macaronis manufac-
turer that there would be an increasing and constant demand
for it He also $\pm= \pm= \pm=\mathrm{w}$




 Eggs.-Choice new-laid eggs in good supply, at 14c. to 16c.
per dozen.
Holdes.- No. 1 green, 8ic. per lb.; No. 1 steers, 87c. per lb.;





AN AFRICAN MILLIONAIRE.
efisodes in the life of the illustrious COLONEL CLAY.

## Continued from page esp

















































 system."." must ned rest and change," I said, " when you talk
like that. Lete us try the Tyrol." he krisode of IV



























 r,000 Wmateour tiok to to view. The invaluable Cesarine pro
cureat them tor us
und
 Leibensteinin 1 must say the drive through the grounds wat
simplWe knockedat the door-for there was really no bell, but a
 attired in a very ancitant and honorable ivery. Nive antigue
hall sumits of ancostri
couts


 Charreed had. madid in this mind up. Ine. Must and will have itt











 and remonstrated with him in a very gentle way for inter-
rupting us. The steward understood, and eleaerly
regreteded

 in polish to strangers", in in frank terms. His lawsers at Meran
He named his price in






 were most rospeoctable and respeocted men. Thers had done the









 to aht. he whis original, rroposal. With pride "We Tyrolee












 "Yoes," Chmilise ancoiaimed, incredulous.
Buust be midetaken." Charles eried ,







 talk italio ver with you. ${ }^{\text {s/ }}$,
 estatase ind irperand and and they were glad to be honored with the
conndin
Sir



 with a gueer little




 "Ten per cent is isore usual", I murmured.
He was the Austrian husar again.
Five
${ }^{1}$ I bowed and withrrew. ." Well, five, then," $I$ answered,
 Sotuld. Charles and I met by appointment in

 portant sent., unfortunately drawn, by some misapprehension.
fio my ro orrer on the selfsame bankers, and with the Counts
signature.
[to be.continued.]


Somebody Else.
 Oinitita far fritto see

 It horosis any hari or unpleasunt taik


 The wordo or oher for a.tranger had


Thera are balute in itio wo oll can ighty




Why She was Popular. A queer old man one made. $a$ tea party for all the 1 itle piris in our town,
and when they were all gathered in his

 what "most popular" meant, so hew
 girl. Allt the children voted, and NAryy prettitits ner the col leverses was not the the
dren but she got the doll.
 I. wiil give said the quer old old man, that firsite ele another doll to the one
Mary the best., me why you hal like Mary the best. ently Fanny Wilson saidt ...ltits pres.
 rest of us wan to popay, and then
says, LLets play that. The old gentleman said that was he wast going to try for the teresto of his
hife to
find life to find out what other people
wantect top play, and then say, "Letets
play wanted to pli
play that!

## "Secrets."

Jimmy and Jack, always called
the rest of the fand the youngest of seren-n-tll hoyys:' (ian










 tifun mation hair


 Woushten presents: : wesides, thys haventit a cop


 mothers heak kast, oli, wont she the spixinery





THE QUIET HOUR.
The Ministry of Well-Wishing. - Learr that each duty makes itis. .chim
 The grater perili it the strife Forasin batiles oin ifitial Arous him then this is thy prit:
 Smooth thon his path er it it it inod dield

And then. It hink thys sool shatil teel

One of the saddest things about liene is that, with such boundess power to ivie cheer to theters by
our speech ,uost of us pass through the world in ourr spech most of ns pass through the world in
silenee, locking up in our own hearts the thought.

"secrets.
ful and helpful words which we might speak, and and inspiration. Hearts are breaking with sorruw, men are lowing under burdens too heavy for them, hamd, in every life, there is need fore. On every isthy, that men and women may not fail love's minThe bind costly service that usually is needed. give all the impulse and inspination feeling will often many of us let the good-will lie in our heart Yet uttered, and stand by in silence while our brother ours might have chan defeat, which a few words of the want of love that is our fault, but the is not onsness which locks up the love and will not give it Wht to bless others. Is any miserliness so mean? in our hands is the food to keep them living when make them strong, then when they lie in the dust we cone with on love to make funeral wreaths
for them and speak eloquent eulogin memory. and speak eloquent eulogiums to their





埗 No wishom itecome rean in our hife thel than that
 Mord with peace. Light shining in our losom
 move in the diark minees thenere is is light so so it is may grow very dark somention shines. hut round avor atot in the truest sesse if we he shial surey

 us and the fiercer the storm. Christs jov wase in by the If we would realize the evishes of our friends for
iov, we must the surre to get the love of Christ iuto ouit hearts, ne the thene to get the love of christ iate lamp, and shaill find gladness wherever we go.
We need not, then, in any case greatly worry

 the gloom outtide.. J. R. Miller. If we could read the secret history of our ene suffering enough to disarm all hostility.-l.ong-
fellowing enough to disam all hostility.-Lomg make good wishes come true we then
first get them into our heart and the

How much hetter it womld he if at all tines gave freer reint to our lips in speak king kinindy sand cherering words. It is truly very sad when nothing
less than the death of our friends can draw less than the death of eur friendy can drawatiog
our slow and selfish hearts the debt of lore fonm
 the angel wininsty-it ism wherer is a time tor waying, When death has come, or failinere is





 soulls or shine like sparkling gems upoon our bod our The best way for our friend to get goond thinws The friends who thiek hrist hamas.
The friends who think only of this worlds
honors sund possessions sind attainments whe lonorr sand pessessions sum d thainments whenthey
wish us well do not tumderstand the talle of values by which heaven estimates everything. The pood wishes that are of most worth a ree these the good
for qualities of character which we can carry wre for qualities of character which we can carry with
us through the pearl gate.

How to get these great things into
our lives is the question. Our best
and truest friends cannot put them into our lives by any power of love. They may utter the wishes, and may
translate them into prayers, but only we ourselves can take the benedictions and the answered prayers into our life. and purposing. New Year or birthday resolutions are good enough as uch, but unless they are gotten into in neat lines on paper, they will very fine, but they must be lived out nust take the practical worth. We must take the good wishes of our
friends and turn them into life; we must let them into our spirits, as the bare briery rod in the garden lets the ransmutes them into blooming, fraJust how to do this is an importhe fact that all growth of character must begin within. We are to be transformed by the renewing of our What we are in heart, in spirit in the inner life, we are really before God; and that, too, we shall beftimately become in actual character, in
out ward feature. The disposition makes the face. Every creature makes the face. Everv creature
builds its own house to live in, and builds it just like itself. Coarseness fully A corrupt heart works through in the end, and changes all without into moral decay like itself. Jealousy,
envy, bitterness, selfishness, all write envy, bitterness, selfishness, all write
their own image and signature on the features if you give them time enough. A pure, beantiful soul builds a holy and divine dwelling for it self. In one
of Goethe's tales he teils of a wonderful lamp which was placed in a fisherMan's hut and changed it all to silver. The lamp of Christ's love set in a sinfulness and earthliness into the likeness of "hrist's own spirit. To

UNCLE TOM'S DEPARTMENT.
My dear Nephews and Nieces,
My dear Nurah! Don't you hear the merry shout?
Hip, hip, hurrah! The hot, dusty school-rooms are all closed, and for six long weeks the weate, while their ownes allow ed to lie in silent state, the freedom of holiday-time. The rosy June hours the freedom on but slowly to those eager hearts whose dragged on not even the dread of approaching examinations coully come, I hope all will find their sired time has real fancy fully realized. Oh, that the joyous hopefulness of youth might never leave those merry hearts-that cate brows! And yet I pause ere on those free utterance to such a wish, for a cloudless sky sates the sight, and one must have gale enough to ruffle the sails, would he ever reach his destination; for in a dead calm.
Many things we are wont to call "misfortunes" prove stepping-stones to success, the gale that fills our sails and bears us on our long life- voyage. Se
must, however, look to our rigging and keep the sails must, hod and in proper shape, not only that we may catch the breezz, but that we may make it serve our purpose insteas.
We are often inclined to envy those fortunate beings whose wealth or social position appears to give them greater advantages than we can hope
to enjoy, and yet if we take the trouble to look into to enjoy, and yet if we take the trouble to look into
the matter, we find that very many of the world's the matter, we find that very many of the worlds
cleverest men have climbed from obscurity and comparative poverty to eminence and wealth. Homer
was once a beggar; Cardinal Wolsey a butcher's son; the father of the great poet Virgil a potter: sobert Burns a simple plowman; while Shakespeare, Daniel Webster and Abraham Lincoln were
farners' sons. Coming to our own day, we find that farmers' sons. Coming to our own day, we find that
Garfield worked his way " from log cabin to White House." Again, Mr. Schurman, who receives a large House. As secretary to the present President, was thirty years ago working in Prince Ed ward By dint of hard studying he won a scholarship worth sixty dollars a year; then he went to college and paid the remaining fees
by acting as accountant for different merby acting as accountant for different merThe accident that deprived Prof. Mills of
his hand was instrumental in advancing him his hand was instrumental in advancing him
in his after career, for by incapacitating him for farm work it caused him to turn his attention to study. I might quote many similiar instances to show that so-called adversity is often a blessing in disguise, but I will say good-bye for this time.

## The Meadow Lark Mriella magna).

 This pretty, plump little bird is familiarto many of us. As we walk through the fields we often hear the sweet, plaintive
call, to which some song-bird lovers have call, to which some song-bird lovers have
fitted these words: "Betsy-de-ah - Betsy-de-ah"-"spring o ye-ah-Spring o ye-ah."
The plumage is brown and yellow, speckled
with black. It has a curious habit of seldom With black. It has a curious habit of seldom perching upon trees, but generally preferring
fences or telegraph poles. This propensity, however, is of the greatest service to farmers, for when the cutworm begins its dreaded work our little meadow lark comes nobly to the rescue, as the
tree loving birds do not see these horrid ground caterpillars: but our friend does see them and a fine meal is made! It valks with a dainty step (as the picture would indicate), and. every now and
then, stops to give its tail a little nervous twitch then, stops to give its tail a little nervous twitch,
which is very funny. It eats various weeds, but the chief food is insects:- favorite of all, the grasshopper, which, we suppose, is a very dainty dish
set before the king-if the king happens to be a grasshopper epicure! It has been proved that the meadow lark's foorl consisted of a large parcentage snow, which speaks much for the bird's skill in finding what it preferred. As a rule, meadow larks are not it preferred. As a rule, meadow
ture, and are usually left in penemies to agricul-
tometimes, however, they fall victims to the cruel gun, for
they are considered to be a great table delicacy. They are considered to be a great table delicacy.
huewriter-alas!-has eaten rast lark-about a
hundred years ago-hut now feels quite ashamed hundred years ago-but now feels quite ashamed
of it. This plump little lark looks so innocentbut, still. what horrid things he eats!

## Kitly Kinew About Sheep.

Seven sheep were standing
Ry. the, pasture wall.
Tell me, said the teacher
To her scholare the teacher
One por cheer was frightened,
Jumped and ran away.
(Mif from see hen hown nany.
Wioully heep would tay?
"p went Kitt"> finger


[The following prisuzles.
(The following prizes are offered every quarter, beginning
with months of April, July and October : For answers to
puzzles during puzz.es during each quarter- 1 st prize, $\$ 1.50 ;$ 2nd, $\$ 1$.
75 c . For original puzzles-lst, $\$ 1.00:$ 2nd, 75.c.; 3rd, 50 c
This column is open to all who comply with the following
rules: Puzzles must be original-that is, must not be copied from other papers ; they must be written on one side coply paper, and sender's name signed to each puzzle; answers must It is nimany all original puzzles (preferably on separate paper) swers - the number of puzze and date of issher you send an Partial answers will receive credit. Work intended for frat 1sthe of any month should reach Pakenham not later than the than the 5 month of that movious; that for second issue not later
" Printer's Copy" in one corner, and letter will come for one
cent. Address all work to Miss Ada Armand, Pakenham,
Ont.] cont.
Ont

We are five little creatures ant



the meadow lark.
Twice you have to read me down











Mronumition not he be liow freuk

(Words of the - Acrame number of letters.)



When difficulties block our way.



Answers to June 1st Puzzles.



Solvers to Juene ist Puzzless
Emma H. Humble M.
Adpitional Solvers to May 15tт Pezzles.

## $\frac{\text { M. N. }}{\text { inly Chat. }}$

Rupert Neptune.- We are very glad to have you for our
cousin, and hope you will long be bue of our number.
K. You are wery welcone also. We have several


Iol notiroa a considerable falling orf in our hisit of


## Recipes.

lailed Chicke.
Boil a chicken in as little water as possible until the meat falls from the bones. chop all fine and season with pepper and salt.
Now put in a mold a layer of hard-boiled eggs cut in slices, and then the meat in Boil down the liquor left in the pot and add at tablespoonful of gelatine, and when dis-
solved pour into the mold with the meat. Set in a cool place over night and then turn R raspberry vinegar. To four quarts of red raspberries put enough vinegar to cover, and let them stand
t wenty-four hours. Scald and strain it, and Boil add a pound of sugar to every pint of juice. Boil for twenty minutes, and bottle
rries. Extract the juice, and strain. One quart berries. Extract the juice, and strain.
Add one pint of sugar, let dissolve in the juice, half a pint of water and the juice of one lemon.

$$
\begin{aligned}
& \text { e cream. } \\
& \text { delicate pudding. }
\end{aligned}
$$

One cup sugar, 1 cup milk, $1 \mathrm{egg}, 1$ cup of raisins, baking powder, and flour to make a stiff hatter steam one hour. As this makes a large pudding, allow plenty of room for rising.

## A Reader's Lament.

## 1 Cannot read the old books Head long ears ajo Hiot Dickens. Thackeray,

Marryert, and scoth, of sand Poe And Huyos tales of crime
y canot rad the old books,
Because I havent bion

1 Hove the dear old stories,
My thoughts to them will stray
But still one must keep posited on
The writers of today
Im striving to dispatch:
But ere TVe finisied all of them
There Ill be another batch.





Mat read my thav it Coppertielid

THE FARMER'S ADVOCATE.

OENTRAL GANADA.... Exibibition Associaition twelfth annual exhibition at SEPTEMBER IIth TO 23rl, 1899 TWO WEEKS.


Live Stock Accommodation, Quality of Exhibits, Excellence of Attractions.
extended sand sevenal new buildings erected

onvidin pure $\$ 3,000.00$
"Bombariment of Pekin"



SPRAMOTOR



 SPRAMOTOR CO.,



The Farmers' Binder Twine Cou, tut, brantrord, ontario,




THist bithe Company that sold yoo

JAMES COOPER \& SON, KIPDEN. RHRogistered Shropshires.
 50 CLYOESOLLES, AYRSHIRES and POULTRY.






Are You Buildino 方 Rock=Faced Stone?




 50 . on or about JULY 26th, 1899. $\mathbf{W}^{\mathrm{E}}$ win sell our entire herd, omponpesed of 2 an cous
 W. A. REBURN \& CO.,

## FOR SALE

IMPORTED AND CANADIAN-BRED Clydestalestallions
From One to Four Years Old. Also




 numerous winners
Lady Doughas, bred by Mr James Durno,
Rothie, is a roan 4 yearold that has won six first prizes, including 1 1 t at the that Roval woon six
at Aberdeen. Her sire, Lord Dougla
of

 Bright Arche
Bcllow of
 Markinpy Star of Morning, her breeding seing by
shanpy combination of Booth and buick
shank

 notad stock bull. Her damrange, Mrire, Mourhstre,
bred by Mr. Cruickshank, Sittyton, is the sir
of Mr. Harr.
ary
 is rom the telerer of grand presence and pramise
was got by Sigmund Fochaters, and
Dast

 mand used many years by Mr. Mr. Druickshank
anders the who con
siders the breed siarge. hearily fleshed and deep-nilk ing cows
from the
 is, all things considered, one of the and which






SEVERRL "w flliles,
All registered and warranted sound. Inspection invited. ROBT. DAVIES,
-om Thorneliffe Stock Farm, TOROHTO.
Nine Clydesclale Stallions
Juss landed trom Soctund, also a tew imp.
and home brred Shorthorn temale
JOHN ISAAC, River Bow Stock Farm. B. SNARY \& SONS, CROTON, ONT.,
Breeders of Shorthorn Cattie
Morand-China We offer for or site swive ine.



## moderate considered.

Shorthorns and Shropshire

F.ounded ise



Twenty-two Shorthorn Bulls
 TWENTY COWW AMN HEIFERS

 JOHN DRYDEN, BROOKLIN, ONTARIO. Scotch Shorthorns, Choice Stropshirie Sheeg. SHORTHORN CATTLE AND LINCOLN SHEEP.
,ima hup mion unad hat sum M. J. TIBSON Maple Lodge Stock Farm SHORTHORNS.-- Imported Knuckle Duster,
and the
service
s.at sire and show bull, Abbottsford, in service. Several choice heifers for sale, and a grani
lot of young bull
dime. Saithness, from good miking

onoces Shorthorn Bulls - Wiskitiotes.o.o.omr.

15 SHORTHORN BULLS 25 COWS AND HEIFERS Tcluding 9 recently imported heiters. Prices right Claremont Station, C. P. R. R.
Plockering Station O business, no harm."
W. D. FLATT, HAMILTOM P. O. and TELEGRAPH OFFIGE,


Jǚy 1, 1800
THE FARMER'S ADVOCATE.
F. BONNYCASTLE \& SON Shorthorns, Cotswolds, ant BERKSHIRES.

 Siortiorin For SALE herd established 1855

JMIES IOUSLAS, om CALEDOOMII, OMT SHORTHORNS 9 BULLS, 4 HEIFERS,


stoantrill sta, G. T. R. BETHESDA, ONT Scotch Shorthorns For Sale: 90 hase to sumect moum


| herl |
| :--- |
| T. |
| en |

W. G. PETTIT \& SON, FREEMAN P. O.. $\left\lvert\, \begin{aligned} & \text { Buringtion Junction } \\ & \text { Tolegraph ontioe }\end{aligned}\right.$ 10 SHORTHORN BULLS 10
隹 OUNT -om


J. W. Hartman
${ }^{a}$ sons
SPRIIGHURST SHORTHORNS

 WE OFFER

Three Bulls for Sale
 A. J. C. SHAW \& SONS thamesville, ont
SPRIMGFIELD FARM
Shoorthorns, orfords, aso Berishires.

 Wyebridge, Ont.
SCOTCH SHORTHORN BULLS AND HEIFERS Soch herre as EsTABLISHED IN 1872 . Wartare have put su where wrowe
ELIN COUNTY. D. BR IONA. ONTARIO.
SPRINGBANK FARM
Shorthorn Catule oftord K Sheep, and Bronze Tur
tege
Young bull tor sale
SHAS. TOLTON, WALKERTON, ONT
SHORTHORN HULL FOR SALE
Evira saxon 2106, by Royal Saxon 10337 dam R. MITCHELL \& SON.

HAWTHORN HERD
3 EEP-MLKING SWORTH


T. E. ROBSOH, Ilderton, Ont.




 TROUT RUN STOCK FARM.

 and
prices and ful particulase
WM. THORN.
Norfolk Gounty. -om LYNEDOCH, ONT
W. F. STEPHEN,
meder and importer or ohoive
AYRSELIRES trom deip mining surition rwid buly BROOK HHLL FARM

CHOICE AYPSHIRE BULLS

W. W. BALMAANTMNE,

Six-Young Ayrshire Bulls-Six For bactit

 ROBT. HUNTER, | Manager to $w$. $w$. ogivive. LACHINE RAPIDS. |
| :--- |
| COE. |
| QUE. | AYRSHIRES FOR SALE.



 JAMES BODEN, TREDINNOCK FARM.
OM
STE. ANNE DE BELLEVUE. OUE: maple Dairy and Stock Farm. AYRSHIRES $\begin{gathered}\text { Three young buls fit or } \\ \text { seriee, and } \\ \text { bull } \\ \text { calles }\end{gathered}$ BERKSHIRES, TAMWORTHS, R. REID \& CO., HINTONBURG, ONT. MEADOWSIDE FARM J. YUILL \& sons, propes, carieton Place


Ayrshire Cattle and Berkshire Pigs.

 D. BENNING $\mathbb{E}$ SON,
high-milking ayrshires.

 4 Yearling Ayrshire Bulls for Sale. Also F. W. TA spling cal, weliman's corners, ont.

2 - Choice Young Ayrshire Bulls - 2


## The prize list just ice.








 Requetsor of in
Send for ar apizs list.
Read all or the rut
Ask for special entry parefully.
prepared for each departrment:
With. .
Donot be later than September 1st, but rather
before, as there may be corrections required





 Ceeswimillor be acoented.
Thi adrose of the new Nelles, Londoson, Ont.

## GOSSIP.

Mr.Wm.J.Duck.Springridge Farm,Morpeth horn cattoe has recontly added to his stock
the imported but Wbereen Hero. Ho was
hed



W. F. Stophen, Trout River, Quebec, writes:
 out ar remarkably fin animal Uniclo Sams
heiters are making grand milkerd Fro
 welvo gallons cream per day, which 1 ship
city
ity
Kontreal. 1 expeot to have a number maple hill hoistrins.
One of the staf of the Farmert's Anvocarte
recently called on Mr. George W. Clemons, St

 aby the year 'round A Prominent frure















 Pleedee DeFol, strong in the blood of that greal
famis, are going on splendidly
A new add






 May Theashock was forbided upon selection









MONEY IN YOUR POCKET. Mrs. E. M. Jones, Box 324. BROCKVILLE, ONT., CAN. BRAMPTON JERSEY HERD.

 B. H. Bull \& Son, S. WICKS \& SONS MOUNT DENNIS, ONT.,
 onse We have emoo eome fine Regitereed dirie

ROREALE:


s. DYMENT. -om barpie, Ontanio Deschenes Jersey fírd.

 DESCHENES MILLS. OUEEEC MEADOWBROOK JERSEYS. TAM
WORTHS. W. WYANDOTTES.


Glen Rouge Jerseys.
 2n-vom

## HOLSTEN-FRIESANS

Confer tor sule MADGE MERTON Eth, girn

 herd won championship gold mediasin in Ierr and 18 ImT. HOLSTEIN BULLS



 Lynnfield Holstein Herd.

 C. M. KEELER,

Oh, Yes! We sell Holstein Buls, Sold Tivi right. Write tor monthi olar. trem right and are State just what jou want
oxtord Countrice, Currie's Crossing, ont.

Belleville
BOGLE \& BUSINESS JEFFERS, COLLEGE


1. Bookkeeping.
2. Shorthand.
3. Typewriting
4. Telegraphing
5. Civil Service Options Students may commence telegraphing on the firss
of each month, and the other departments at ans
timee
J. FRITH JEFFERS, M, $A_{1}$, Principal.

Address: BELLEVVILLE, ONT. $\quad$-m


AND SHORTHAND SCHOOL. A businese edocation will help you, Students teachers employed. Write for particular specialist
H.M.KENNEY. PRINCIPAL. WOOOSTOCK. CENTRAL DINCSAL OLleqie Stratrord, ontario The Leading Commercial School of Western Ontario.

## CANCER=- =

STOTT \& JURY, Bowmanville, Ont.

## GUERNSEYS.


SYDNEY FISHER,

Cknowton, p. o UERNSEYS
Two Choice Bun Calves
ND Tamworth and Berkshire Pigs W. H. \& C. H. MCNISH,

## INGLESIDE HEREFORDS

UP-TO-DATE HERD OF CANADA!
HAMEVOIRYEEES Choice pigs six to seven
Send for trated Catalogue. Addra
H. D. SMITH, compton, oue
F. W. STONE ESTATE, The fin liertiont he ontario




#### Abstract

GOSSIP.   Mr. W.R Rowman, whase took farmis noar men who paseseses the reavisito anoonount                  b $b$ $b$  s.            Thean testa ris tor seven consocutive dass        



 an hass: property of $A:$ age

 and



 and

 Mitbon which we would be inclined to suspect
Mr. Toiton would reserve to head his herd.
He is a straight, deep. good calf, with a weald He is a straight, dee. good calf, with a weald
of natural fesh not pound in every family, and
of the early


 in fatc. he is an all- round good bull. Soven red
and roan bull calves were in view at the time
of our




Work Done TMOROD BEMENT
With Speaks for


NEW WELLAND CANAL. Lock 24
From W. G. Thompson, Esq., Engineer in Charge New welland My tests of the Thorold Hydraulic Cement have extended over a peried hanal





Masonry Work buil abeen bridge, oakville, ontario.



From the Toronto (ilobe, September 19th, 1894. OAKVILLE'S ENTERPRISE,
An $\$ 11,000$ Steel Swing Bridge Formally Opened Yesterday-A Large and







FOR FREE PAMPHLET WITH FULL PARTICULARS, ADDRESS
ESTATE OF JOHN BATTLE, THOROLD,

ONTARIO.

## 2 Imported Shorthorn Bulls 2



HEIFERS.

## HEIFERS ALL IN CALF TO IMPORTED BULLS.

H. CARGILL \& SON, CARGILL, ONT.


Large, Lengthy, English Type. Among them being the firt conoico or the mont inportant prize
 al
om
AYRSHIRES and YORKSHIRES


PURE-BRED GUERNSEY CATTLE Chester White Swine.


Duroc - Jersey Swine.
For SaLE-Two young Bulls ready for service, and Heifers bred. First-class Pigs of all ages from
impored and rrizewinning sires and dams. Twenty head of HOLSTEINS for sale. Write for particu-
lars and prices to
SHORTHORNS! SHORTHORNS!!

D. AKIEX ANDECR, BRIGDEGN, ONTTARIO.

## large Yorkhires.


E. DOOL, - Hattington, Ont. Yorkhires, Holsteins, e Cotswolds

R. HONEY,

PINE GROVE FARM HERD OF LARGE YORKSHIRES.

 JOSEPH FEATHERSTON, Streetsville, Ont.
W. R. BOWMAN,


 Large English Berkshires.


Yorkshires and Berkshires
 JAS. A. RUSSELL,

BERKSHIRES SALE

the ontario veterinary college
TEMPERANCE ST., TORONTO, CANAD
Affliated with the University of Toronto.


SNELGROVE BERKSHIRES AND COTSYOLDS

REGISTERED CHESTER WHITE PIGS Eiigh weeks old, at \$5.00 each.
REGISTERED UERSEY BULL CA

OHIO IMP. CHESTER WHITE PIGS
Young stock, both seexes, for sale. . Bred
trom inliported and home bred stock.

| T. E. BOWMAN | o. | BERLIN, ONT |
| :--- | :--- | :--- |
| DUROC-JERSEY | SWINE |  |

## 



GOSSIP.

 It reaches
business.
fitzerrald bros.' shorthorns











 sire. British Statesman, purchase Meser


 cominhaae he hass troo ano of the thest herr


 hen time of our visit, most of which are at
servicable ate ochitefy irect by the Morton
bred bull bred buil, st.t. Louis. Thes are all reds and roan
and worthy of the attention of those seeking
and Such hecockide Coteswolds are up to their forme
mark, and a splendid, well-covered lot of lamb are to be found at Mount St. Lonis.




































OXFORD HERD OF POLAND-CHINAS


One handred Tramworth and Improved Chester
White Spring Pips of a ture bacon type, our herd having won the best prizes ofierea dit the tededing
exhibitions thruybout ontario and Ouebe (tor the

 H. GEORGE \& SONS, Crampton P.O., Ont. Spring broor herds of
HOLSTEIM-FRIESIAMS AHD TAMWORTHS.

A. C. hallman, New dundee, ont.

Chatham $\begin{gathered}\text { mend } \\ \text { cin } \\ \text { Tamworths }\end{gathered}$


TAMWORTHS.

 TAMWORTHS, YORKSHIRES, BERKSHIRES



TAMWORTHS
 evpresented dit the Illinois state Fair but won the
 - P. R. HOOVER \& SONS, CHOICE SPRING PIGS


## HELLO! HELLO THERE!! <br>  <br> CHRIS, FAHNER, Creaditon, Ontario. <br> CHESTER WHITE SWINE. <br> W. E. WRIGHT, - GLANWORTH, ONT.

OAKHILL TAMWORTHS

 Tamworth BoARS and sows, from Elliott, Bell
 extra well covered, imported foundation.
CHAS. LAWRENCE, COLLINGWOOO. CHOICE TAMWORTH \& YORKSHIRE SWINE Ot both sexes. Also five pair Toulouse geese;
six pair of good Roun and Pein uncks; one

pair Golden B. Poland (McNeil's). | John Hord \& Son, Parkhill, Ont. |
| :--- |

|  |
| :---: |
|  |  |

Used and endorsed by Hon. John Dryden, Minister
of Agriculture, Toronto, Ont., and leading breeders everywhere.
superior to all higuid dips.


EVANS \& SONS, MONTREAL OR TORONTO. | Book premiums on application to Coopsr |
| :--- |
| Galveston, Texas. |
| om |
| om |

SHROPSHIRES 30--Ram and Ewe Lambs--30 30--Ram and
Mostly sired by the inp. ram Newton Stamp
A prizewinner at at Toronto in 1897 . GEORGE HINDMARSH,

FOR 60 DAYS | wrump bees |
| :---: |
| wit | GEORGE HOTEL, Shreusbury, Eng.

 will receive careful attention. Sheep imported by
me have woo more premimsin eight years than all
other importations combined. ROBERT MLLLER, Stouffille, ontario.
O.
ROM HENRY ARKELL. AREELL, ONTARIO., OXFORD-DOWN SHEEP. Animalas of all ages and both sexes for sale. Have
some impd RAM LAMBS.
Prices reasonable.

THE FARMER'S ADVOCATE.

| GOSSIP. |
| :--- |
| $\begin{array}{l}\text { W. \&. H. Jones, breeders of poland.China } \\ \text { hoge, Mt. Elgin, Ont., in remitting for their } \\ \text { advert. }\end{array}$ |


 aoing well. We have received many enquiriee
from oor adverisement and have made goo
sales innumber quite beyond our expectations."

 foal brought 100 guineas and a clyde mare 91
guineas a 4 tyearold
I50 giunineas, and a 3 -year-old gelding sold for 79
guineas. 79 150 guinea
guineas.
Mr. S
have lately




 rootsoan kind of wooden roofs. Creosole pres
vents decay.

THE
Sherwin-Willams Creosote Paints
is specially made for use on roofs, barns, out-buildings, shops, bridges and fences. It preserves them at the smallest outlay. It costs less than ordinary paints. It is far cheaper
than doing without any paint. Be sure it's THE SMERWINWilliams Creosote paint. The label is your safeguard. Send for color card.
the sherwin-williams co., paint and color makers,
21 St. Antoine Sirreet, Montreal




 THE CEORGE MRESHING MACHINERY

JULY 1, 1899
EUROPEAN ADVERTISEMCENTS Hampshire Down Sheepl.
 This highly valuable English breed

Rapid and Wonderfully Early Maturity, possessing, too, a hardiness of con
stitution adapted to all climates, whilst in the quality of
MUTTON AND LARGE PROPORTION OF LEAN MEAT IT IS UNSURPASSED.


## W. W. Chapman,

Socrear of tho Natonal shop Brooa
Marsh Sheep tro the late seeretary of the southdow
Sheep Soclety.
Pedigree Life Stook Agent, Exporter and
Shipper. All kinds of registered stock persomaily selectete and oxported on oomm-
misision ; quotations given, and all enquiriee Address : FITZALAN HOUSE, ARUNDEL matem-snownenctill om
J. E. CASSWELL,




 FAMOUS ALL OVER THE WORLD. ALFRED MANSELL \& CO.



Catalogue Printing our Specialty.


London Printing \& Litho. Company, Ltd., London, Ontario.
SHEEP BREEDERS' ASSOCIATIONS.
American Shropshire Registry Association, the lar-
getst live stock organization in the world. Hon. John
Dryden tres Dryden, President, Toronto, Canada. Address corre.
spondence on MoRTMER LEVERING, Secretary
Latavette. Indiana.
EGGS FOR HATCHING: $\begin{gathered}\text { Brahmas, Games, Min- } \\ \text { orcas, }\end{gathered}$ Dorkings, Hamburrs, Houdans, Polands, Leghorns,
Ducks, Geese, and Turkeys.
om WM. STEWART \& SON, MENIE. ONT EGGS. It payis bi get tho buta we

LIVE STOCK AUCTION SALES



THE FARMER'S ADVOCATE
The most effective and highly-
cencentrated spray in the market.
Has successfully coped with the
dreaded San José Scale, and
readily destroys all orchard and
garden pests, such as grubs,
worms, brown - rot, curled-leaf,
pear blight, apple scab, and all
forms of animal lite or fungi.
Persiatic Plant Spray has been
tried and proved by leading nur-
serymen and farmers all over
Canada. It does its work thor-
oughly and effectively, and gives
unqualified satisfaction. If your
dealer cannot supply yous
write us direct. We in vite
correspondence.

## Brand This in Your Brain

ABELL THRESHERS ARE GOOD THRESHERS."
the bird that blithely crows in the threshing fiklds of

$$
\underset{\text { is the }}{\text { ONTARIO }}
$$

NEW ABELL

## "Cock o' the North" Separator


wide-awake threshermen are getting in on the ground floor by bUYING ONE OF THE NEW ABELL MACHINES.
3 Gold Medals awarded to the Abell Engines.
IF YOU WANT TO HOLD YOUR ROUTE
bOY A "cock o' the north" separator
THE JOHN ABELL ENG. \& MACH. WORKS CO., LIMITEDD, nurn mitulur Elevator Feed Cutiter ANO P









 THOM'S IMPLEMENT WORKS, Establishead 1875.

## GOVERNMENT ANALYSIS

laboratory of Inland Revenue,
Office of Official analyst, Montreal, April 8, 1895.
"I hereby certify that I have drawn, by my own hand, ten samples of the ST. LAWRENCE SUGAR' REFINING CO.'S EXTRA STANDARD GRANULATED SUGAR, indiscriminately taken from ten lots of about

9999, $100 \begin{aligned} & \text { per cent. of pure Cane } S \text { sugar, with } \\ & \text { no impurities whatever., }\end{aligned}$
(Signed) JOHN BAKER EDWARDS, Ph. D., D.C.L.,


HORSE FORK OUTFIT, \$12.25

$\qquad$


$\qquad$


- Stanle Miliss \& Co., hanillon, out


ROGERS'
"PEERLESS" Machine Yoa yimparet oveen ciry oil co., Lumiad, Toiootio.

## QRONTO 0 FickAINa <br> 92 BAY ST <br> CuIS BYAI PROCESSES LIVE STOCK A SPECIALITY.

Illustatiting the Progress of the Century noting sow or out-of-atie at CANADA'S GREAT Exposition and Industrial Fair TORONTO, ONT., AUG. 28TH TO SEPT. 9TH, 1899.

Best Prize List on the Continent.

ENTRIES CLOSE AUGUST 5 TH .

THE PEOPLE'S ANNUAL HOLIDAY OUTING New Attractions. The Latest Inventions and Improvements.
Novel Features from all parts of the world. Instruction, RecreNovel Features from all parts of the world. Instruction, Recre as usual, or making an exhibit, and why not you? Dont be behind your neighbors.
CHEAP EXCURSIONS ON ALL LINES OF TRAVEL.
For Prize Lists and Entry Forms, address
J. J. withrow, president.
H. J. HILL, MANAGER, TORONTO,

## The Massey-Harris

## HARROWS

Can be Fitted with Either Oval or Slicer Disks.


They are Very Strong and Reliable.
MASSEY = HARRIS COMPANY, LIMITED, TORONTO, CANADA.

DUHDAS KNITTING MACHINE CO.
SUNDAS, ONTARIO.


AND THERE IS MO BETTER TO BE HAD.


Bull to Last a Lifetime.

The orchestral, attachment rendieki Possible It ier regret of, sixteen different stringed instrumints. It is used only in the "bell." Send for free booklex, no, 40, it tellies ail about if.
The BELL ORGAN \& PIANO CO, Limited, GUELPR, OHTTARIO.

## Cerise ann't the long to find wat the merits of on active. the yourfrienss what hey hind of tune tivitrm Ceylon Fra.

## SALT

bLACK SQUIRRELS WNITEE A SUITABLE REWARD WILL BE
GLEN ANY BOY WHO WII DE
LIVER ME ONE OR TWO NETS LIVER ME ONE -OR TWO NESTS
OF YOUNG BLACK SQUIRES

## Weeds and Insects!


W. I.. Gantshone, London, Ontario.
 time to secure bargains,
(MISS) P. J. CoLD WELL, -om Constance, Huron, Ont.
LOW WIDE-TIRE WHEELS.


 chap pes in the maliseet Ae st Donn. Wroughtitron Wheel company,
CONTAGIOUS ABORTION an HOG CHOLERA

He cure or prevent by the wise WEST'S FLUID,


THE WEST CHEMICAL CO.
"Dept F.," Toronto, ontario

| agents wanted in all counties. | om |
| :--- | :--- |



IT PAYS TO ADVERTISE IN THE FARMERS ADVOCATE
and home magazine.

