FOUNDED 1866.

THE FARMER'S AOYOCATE \& HOME MAGZZZINE
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the leading aqravifural journ.





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## Our Monthly Prize Essays

 1.-No award will be made unless one essay atleast comes up to the standard for publication.
and -The essays will be judged by the ideas, argu-2.-The essays will be judged by the ideas, arga
ments, ocociseness and conformity with the subject,
 our object beng to encourape farme
jo yed few educational advantares. 3.-Should one or more essays, in addition to the
one receiving the first prize prresenta different view
of the question, a second prize will be awarded, but one recelveston, a second prize will be awarded, but
of the question in
the payment will be in arricultural books. First
prize essavists may choose boks or mone


 cash. books, we will remit the moner.
about
A prize of $\$ 5$ will be given for the best essay A prize of $\$ 5$ will be given for the
on The Management of Agricultural Exhh bitions. Essay
of November.
A prize of $\$ 5$ will be given for the best essay
on What Steps Should be Taken to Improve the Quality of Milk delivered at Cheese Factories. Essay to be in this office by the 10th of Decem-
ber. The writer of the First Prize Essay appearing in this issue, will please send us his name and address, that we may send the $\$ 5$ prize a warded.
We want Good, Live AGEITTS to Canvass for the "Farmer's Aavooate" in every loanl-
ity in the Dominion and United states. ity in the Dominion andion sumporipion blanks freo to canvassers who mean business.

## Gdifrriai.

On the Wing.
Standing in the observatory of the main building of the International Exhibition, at Detroit, on the 26th day of September, we saw the various railroads centering in or passing through the city. The magnificent Detroit biver is at our feet, on which a greater tonnage passes daily than on any part of the St. Lawrence or any other river on this continent. Five months ago a large swamp existed betwens, but
river and where the building now stands river and where threrted into a pond or minia-
which has been cont ture lake on which pleasure boats are seen ; also a fine driving track, on which are exhibited some of the finest stock on the continent, a good number of which are Canadian, and have gained honors for our country. The large, handsome, commodious building on the grounds, constructed on the latest and most approved plans for the convenience of exhibitors and visitors, commands our admiration, and should be seen by all interested in agricultural exhibitions. It causes as to wonder at, and admire the progressember our American chins, wcavations, and sub. that all these constructed in so -five months. While the display of stock was being made, our senses wee charmed with the sound of "Home, Sweet Home," and other tunes, played on a novel set of chimes, consisting of long iron tubes, and which may be heard at a great distance. They seemed destined to surpass the old church. bell for many York band (Cans) was playing, and wonders of art, science, and nature were delighting and interesting the visitors quite as much, and perhaps more, than the productions of the Shetland
workshop. In Percheron horses, She workshop. T. Curney, and Jersey cattle, Merino yield our consins the palm, but in nearly all other classes of horses, cattle, and sheep, Canada holds the chief place. The exhibition was well managed, and has given pretty general satisfaction, although there are improvements to be made, and always will be. Such exhibitions make the two nations better acquainted wing feelings that may exist in the political arena, and we trust this friendly sentiment may extend from the boundary to the interior of both countries. Space forbids a fuller descripadians. penc Clydes Mr McMillan, Constance Ont., on yearling st allion, first and second prize
on two-year-old stallion, fourth and fifth; on on two-year-old stallion, fourth and fifth; on
aged stallion, third; on stallion and four of his get, second. Mr. McEwen, Byron, Ont., on aged stallion, second. J. Matthews, Acton, Ont. on pair of roadsters, second. Chas. Dalgleish, Chesterfield, Ont., on aged stallion, fourth. Geo. Wilkinson, Drumbo, Ont., on yearling stallion, fifth. Shire-Green Bros, Innerkip, Ont., on five-year-old mare, first. Thorough breds-R. McEwen, Byron, Ont., fourth. Jos.
Hickson, Montreal, Hickson, Montreal, Que., took sevorel prizes on Shatland and Exmoor ponies. W. Gerard, Windsor, Ont., second.
second in - Bow Park won ten firsts and on second in the Shorthorn classes, easily beating
everything. They also came out first in every class in the different sweepstakes for beef breeds. They also showed ponies. D. Alexander, of Brigden, Ont., showed three head, and took third on a two-year-old bull.
Sherp.-J. Kelly, jr., Shakespeare, Ont. showed Leicesters, and took nine firsts and five seconds with a fine exhibit. J. Jackson, Abing don, Ont., showed Southdowns, and completely swept the ring, taking every first and second
H. Mitton, Ridgetown, Ont taking amongst other prizes, first for ram and his get. He also showed Chester White pigs, (taking nothing).
Poultry. Poultrk.-H H. Wallace, Wैoodstock, Ont. secured sixteen firsts and four seconds on poul-
try and ducks. Burns and Moffat, Tilsonuburg Ont., also carried off a large number of prizes in
different classes on different classes of poultry.
Grasses, $G$ RAINs, \& bury, Ont., had an excellent exhibit, which ex-
cited much attention. cited much attention.
Bohemian Oats and Live Fences. From a visit to the counties in Ontario be tween Toronto and Kingston, we know there are parties there pushing the old Bohemian Oat swindle, although under another name. Far mers will do well to avoid signing contracts with sleek-tongued strangers, and buy seeds from seedsmen of known reliability, of whom there are more or less in every city in Ontario. We would call attention to an article in another colfrom the gentleman referred to therein.
We have also received numerous enquiries as to hedges, as there are parties in Ontario contracting to plant, grow and care for thenl. Wo matter, but would call attention to an article in this issue, taken from a paper published in a section where hedgemen have been at work fo some time. We specially request our readers to send us information of any attempt to defrau
them. We are determined to spare no perins to them. We are determined to spare no
show up frauds and protect the farmer.

## Reseurces of Manitoba

## by charles n. bell.

Much has been said and written regarding the agricultural resources of Manitoba; and its great prominently has the agricultural feature been prominently has the agricultural feature been to be that no other industry than that of farming will ever be developed. It may be accepted that local prices for general farm produce are always higher than in the case where the produce is' to be shipped for export ; or, to illustrate the point more clearly, a farmer when seling his butter, cheese, eggs, etc., in a town, expects to receive and generally does receive, for a good article for local consumption, a higher price than he looks.for from a distance, Now, if the population of Manitobs is to be entirely agricultural, with the profeesional class, and the mercantile people who handle farm produce and supply such merchandise as farmers require for their use, the local consumption of food articles produced on the farm will always be more or less limited. It will be seen then that if Manitoba has natura resources, whose development will necessarily
lead to the establishment of manufactories and a lead to the establishment of manufactories and large addition to the population, causing a greater demand for farm produce in the local market, that provics than is generally known Some of the mineral resources of Manitoba may be mentioned, to prove that there is every likli hood in the near future of the employment of large numbers of men, who, while being consum ers of food, are not producers of it.
One of the most valuable of all the minerals is the wonderful deposit of iron on Big Island in Lake Winnipeg. There are two mines, and each has a distinctive ore. The southern and largest deposit being hæmatite, while the northern is a choice bog-ore. The ore body proper is about one hundred and fifty feet long in its outcrop along the shore, and extends to an unknown depth below the surface of the water. There are millions of tons of this brown hæmatite ore, a result of 62 per cent. of metallic iron. The mines are on the shore of the lake, where there is a sufficient depth of water for docks to handle the ores, and the supply of firewood around the lake is, practically speaking, inexhanstible. Deep water navigation is open from the mines to C. P. R. main line at Selkirk, and a movement is now on foot to improve the navigation on the Red River,
so as to bring lake steamers at all stages of water so as to bring lake steamers at all stages of water,
right into the city of Wimnipeg. The St. Andrew's right into the city of Wiunipeg. The St. Andrew
Rapids, mainly a boulder deposit in the bed of Rapids, mainly a boutder doper
the river, once improved to overcome the difficulties presented to lake vessels at a low stage of water, and Winnipeg will be as open to all parts The iron ores of Big Island have been in quantities severely tested at Chicago, and gave returns that prove them to be of wonderful purity' and and other western coal mines are in the banks of the Saskatchewans, which, when joined, pour their united waters into Lake Winnipeg, it is not merely a figure of speech to say that nature has placed the coal withe farmers of Manitoba will be called on to provide food for an army of me angaged in working the iron deposits of Manitoba,
and manufacturing the pr
forms in which it is used?
forms in which it is used?
On the northern slope of the Riding Mountains, and on the Vermillion River, near the north-west
corner of the province, about 150 miles from the City of Winnipeg, borings for petroleum have been made, and the prospects are excellent. Good samples of crude petroleum have been obtained The boring showed strata of clay, shale, soapstone and sandstone; but better machinery must be taken into the district to make a closer and mor extended trial before the actual value of the de posits can be aseertained. The Lake Dauphin district is as yet but thinly settled, and freo omesteads can be secured in every direction, of character described by Mr. J. B. Yyrell, of the canadian Gelog climate he found there is, in his opinion, equal, if not superior, to any he has met with during his ten years of exploration in the Northwest.
An abundance of salt is found in various localities in the province ; indeed, in the older days of the Red River settlement, nearly all the salt used in Manitoba was manufactured at lakes Manitoba and Winnipegosis. As late as in 1875, rains of Red River carts were to be seen enter ing the village of Winnipeg, bearing loads of excellent salt, which could be carted from Lake Manitoba, and delvec at a freights consequent imported anstruction of railways from the south and east, soon cut down the value of salt, and it could no longer be manufactured at Lake Manitoba, and drawn in carts to Winnipeg at a pay ing price. As soon as there is rail communica tion into the Dauphin country, salt manufacture in that district will pay well, as all the salt now Consumed in the Northwest There is a good fiel or the prosecution of the industr
There are vast deposits of high grade gypsum in Manitoba, which can supply all the land whole Canadian and American Northwest.
The quality of the limestone and brick used the construction of many of the finest building in Winnipeg and provincial towns is manifestly of the best. The sandstones of Lake Winnipeg are of good quality and color ; and when the de mand arises, the immense stores of them ar ready to be worked. Fire clays of superior fine néss have been discovered, and only await d and and capital to be utilized.
The coal deposits in the Souris district, and in the Northwest Territories, is reported by the square miles, and to be practically unlimited The product of the Galt mines is now trans ported by rail to Wimnipeg, and sold by the ton delivered at $\$ 8.00$. Competition in railroad rates will steadily reduce the cost to the consumer, an make it more available. It is only becoming realized that the people of the Northwest can entirely independent of the eastern coal supply and that the question of fuel, that largely exer ised the fears of the pessimists in the early day The setlement these coal denosits may be put the future is a question that capnot very well be goue into here; but, certainly it may safely be predicted that as the demand for general manufactured articles whose cost largely depends on the cheapness or dearness of coal becomes greater and of a volume to warrant a large, local
market, manufactories will spring up to turn out voods that are now imported. It is frequently asked by strangers visiting Manitoba, why we do
not attempt to manufacture iron goods, if the not attempt to manufacture iron goods, if the
ron deposits are as good as claimed. The answer iron deposits are as good to the limited population,
given is, that. owing to there is at present not a market considerable enough to warrant the establishment of smelting works and manufacturing establishments to supply any particular line of goods. It is apparent, however, that as we have the raw material, it is only a question of time when the foundry and factory population, drawing preduoe from the census taking
The fisheries of Manitoba and the Territorie are a very valuable asset in the country's wealth. Last year over two millions of pounds of fish, for
the most part fresh, were exported from Mani toba to the United States ; shipments being sent as far as Buffalo to the east, and Kansas City to the south. The catching, salting, and smoking of fish at Lake Winnipeg, gives employment to hundreds of people who purchase from the farme the agricultural products of his farm. The lake fishing areas, within reach of marke, are mites mated at over har we who kesidents of Prorio are for th greater part dependent on the Manitoba farme for the farm produce consumed by them. With vast resources of mineral wealth, partly un covered, including rich deposits of gold, silver, iron, copper, mica, lead, asbestos, slate, etc., it needs no especially prophetic eye to foresee that a large mining population there will demand food from the fertile prairie lands of Manitoba. Avoiding any further lengthy description of the natural resources other than grain, of Man itoba and the Territories, it may afford informa
tion to point to a few of them. Marble, both tion to point to a in quantities at Lake Man-
white and grey, is in
itoba ; ochres are at Lake Winnipeg ; terra cotta itoba; ochres are at Lake Winnipeg; terra cotta
clay west of the Province; asphaltum in the
clater clay west of the Province; asphaltum in the
Territories, ; limestone for lime on the Red River Territories;
and elsewere ; building sands at many points,
and sulphur on the Athabasca. There are thousand sulphur on the Athabasca. There are thoostor making wood pulp, straw for paper, reeds and grasses or mats, flax and seed for twines and
oils, and proper wood for charcoal. Vast peat oils, and proper wood for charcoal. Vast peal
deposits exist east of the prairie limits. Barrels of excellent quality are being turned out at the factory at Rat Portage, and there is plenty of
timber in different localities which will provide material for lumber, shingles, boxing, implements, fenzing, etc. Small fruits, as raspberries, tion of garden vegetables grown in northern countries, will providé material for jam and pickle
establishments. The wonderful growth of beets should make beet-root. sugar manufacturing possible. Cranberries grow luxuriously in the
swamps about the Rainy River, and with cultivation will give regular and improved crops. With
acknowledged advantages for stock raising, the country will be a centre for preserving, curing and canning of meats. Having an abundance o The fur districts to the far north will always call for provisions. Glue, soap and preserved milk fac
tories will find an abundance of raw materials to work on
The list The list might be continued, but as the objec
sought after is to draw attention to the fact tha sought after is to draw attention to the fact that
Mauitoba has resources other than mere grai raising, it is unnecessary to give more details. To
the most ordinary observer it must be apparent the most ordinary observer it must be apparent
that with increase of population there will be an that with increase of population there wine and
extension in our lines of manutacturing, and the
Northwest farmer will have a good home Northwest farmer will have a good home mar
ket as well as an outlet by exportation tor a har wheat and other good grains that are in demand wheat and other good grains
for their especial qualities.

## Our Advertisers.

We are constantly receiving letters from sub scribers in various parts of the Dominiou and the United States asking us to give them the
4. names of reliable breeders and importers of refer them to our advertisers, and by this course we have made many sales for our patron this season, entire satisfaction being the result in every case. The following letter from Mr. Wm. Clark, North Wiltshire, P. E. I is very expressive and encouraging :-
fully the short time I have had them. In in mex fuly the short time I have had them. I ex they captured first-prize. Mr. Bell, Manager o
our Government Stock Farm, was one of the our Government Stock Farm, was one of the
judges of shep, and said they were the best
pair of lambs that were ever imported to the judges of sheep, and said they were the best
pair of lambs that were ever imported to the
Island, and that I might think nyself a lucky
man to get such a pair. I might say that Mr man to get such a pair. I might say that Mr.
Bell has been in the best stock-yards of Englan Bell has been in the best stock-yards of Englan
and Canada, and is one of the best judges o
sheep in the Dominion. My pen of ewe lamb sheep in the Dominion. My pen of ewe lamb
were the centre of attraction at the sheep pens I can now cordially thank you for recommending
Mr. Jeffrey's sheep to me, which 1 did not fee Mr. Jeffrey's sheep to me, which I did not feet
like doing on their arrival, as I was prett
frightened frightened about them
We direct special attention to our advertising eolurns this month, as we can heartily recom
mend the stock, implements, etc., advertised. We never receive advertisements from dishonest or unreliable parties, if they are known to be
such. We always make strict inquiries as to the value of the goods advertised and the honesty of the sellers. Should any of our readers dis cover dishonest dealings on the part of any of our advertisers, we ask that such be reported to us at once. During each year we refuse hundred sider the goods advertised to be worthless or the character of the advertisers doubtful. No pape in America discriminates more closely in this matter than does the Farmer's Advocate.

The Winners of the Farmer's Advo cate Prizes.
We append a short history of the draught mares and Jersey cattle that won our special prizes a the Provincial and Industrial fairs:-
The first of the trio is Darnley Maid, bred by John McMillan, Milton, Stranraer, Scotland foaled May, 1885; sire Darnley (222); sire of dam Rosebery, by Prince of Wales (673); gran dam Young Nancy (4024); sirce dam Nancy, by Prince of Wales (673). It will be seen that this mare unites the blood Darnley (222) and Prince of Wales (673)-two of the best sires that ever appeared in Scotland. She was selected and im ported by her owner, and purchased from David Riddle, Esq., Black Hall, Paisley. Whether she was exhibited in Scotland, we know not. She in 1858, and silver medal in St. Marys in the same year; and has taken six first prizes this fall, not including the farmer's Advocate prize.
May Queen [182], bred by Jeffery Bros., Whitby, Ont.; sire Abbotsford (1565); dam Cen tennial Medalist [134], that took the gold medal at Philadelphia; sire Netherby (imp.) (1491); grand dam by Tinlock (imp.) [15], C. S. B.; $g$ g. dam by Dermer (imp [193]; go g dam by George Buchanan. May Queen was purchased
by Mr. Robinson in 1887, and took first prize nd diploma at the Western Fair in London, i 1887, first prize and diploma in 1898, and firs mate for the best team. She aloo took whe her medal at the Industrial in Toronto, this fall, for the best Canadian mare of any ago ; took six ther first prizes this fall, and has never been beaten since she came into my possession. It is claimed by competent judges that she is th equal of her illustrious dam in every particular ; and she has a yearling filly that bids fair to surpass her, having never been beaten yet. Lady Canaby was foaled in 1881, bred by Thos. Robinson, Kintore ; sire Canaby (imp.) (1407) am Jean of Kintore [249]; sire Lord Hadà (imp.) (1477); grand dam by Captain Watt
(imp.) [231] 400 ; g. g. dam by King of the West (imp.) [185]; g. g. g. dam London Tam [127] 18 (1482). This family has been bred in line for over thirty years, and has been retained in Mr. Robinson's family and handed down from father to son. Jean of Kintore died in his possession, and was one of the most successful mares in the show ring in this part of the country, as well as being a splendid breeder. Lady Canaby has been shown six times this fall, and has taken
the dairy prize.
Mrs. E. M. Jones, Brockville, Ont., writes:send you a brief description of my three legat ilver service awarded by you at London $r$ the three best dairy cows. Many years ago decided that Stoke Pogis 3rd was the greatest bull that ever lived, and Signal ranked next, and my herd was, therefore, built up chiefly or hose two strains. Unfortunately none of my
est St. Lambert cows were in condition to go to the fall fairs, being too near calving to be moved without risk. I had, therefore, to eke out th herd with three Signals, viz :-

nam


On second calf, at four years old, Miss Satan made the following test
mencing May 13th, $1889:-$

## First week Se cond week <br> Se ond week Third week Torath week Three days...

Total for 31 consecutive days... $-\frac{7}{-8}-\frac{131 / 2}{131 / 2}$ Mark the steady increase in gain. The test was then discontinued for two weeks, when we
ried her again for one week, result 20 lbs. 6 oz. of magnificent butter. During any of her tests her milk yield never fell below 35 lhs. a day, and never rose above 42 ms . Her feed wa arily good pasture, and ea ceart grond peas hree quart' ground oats, one quart ground peas, little cut hay. Every evening she had the same Sometimes she ate it all and sometimes she did not, but no one ever waited for her ; she went
out to pasture with all the other cows night and day, and was fed and milked only twice a day like all the rest. It is not only the quantity of milk and butter that stamp Miss Satanella as great performer, but the moderate amount of on his stock with profit. Miss Satanella was just five years old at time of test. She is a large andsome, orange-fawn cow, splendid udder an eats, fine constitution, placid temper.
The second cow in the test was Bertha Signal 28624, dropped March 17th, 1884.

Solid light fawn, dark points, superb udder and escutcheon, splendid form and constitution. relatel the breeding and zee how closely she ertha Sis to Miss Satanella. I never tested etting her in any way at all, not even by setting her milk in a glass; but, from th cuantity and richness of her yield, we alway that we were not mistaken, for she was in the est close upon the heels of Miss Satanella The third cow was Lulu Delle, five yeara solid, smoky fawn, not a large but a most per ect and beautiful cow, with superb udder and teats. She goes three times to Marins, the sire of Signal. The only test over made of Lutu was last August. She ran in very poor pasture, and had a small bran mash night and morning. not a handful of grain of any kind whateveryellow as gold and as firm as way.
I do not consider any of these cows at their best at time of test. They were all five year old, which is a good age, but Miss Satanella was almost six months in milk and again in calf. Bertha Signal had not calved a month, and wa exceedingly thin, as we had feared milk fever. Lulu Delle was six weeks calved, but she also was far too thin. The hree Ayrshires competing showed a proit of a lthe more thau thirteen pe Jerseys showed forty seyen per cent profit on food consamed. Anyone can draw their own inference.
If men were so constituted that they would tell of their mistakes, as quickly, and with ai
much gusto much yusto, as they brag of their successes, will be following up in the future, some perhap already exploded projects.
Col. McClure, editor of the Philadelphia Times, recently very wisely said :- "Newspapers
are very often criticised for what they print, but if it were known how much credit they merit for what they don't print, or for the nonsense they
whack out of what they do print, they would command a much more generous judgment. A day's drive now and then in different direc.
tions is very instructive to those who "keep their eyes and ears open." Some one has said that manners are best learned of the unmannerly. To the observant, the neglected, slipshod, ill-kep
farm is at times as instructive and carefully tilled one. I have often returned from such a drive both encouraged and reproved and incited to greater diligence and effort. Farm ers sho:
anib of taking a hint whenever found.

Dur Silver Tea Sets Awarded at the Last Provincial and Industrial Fairs-Similar Prizes to be Given Next Fall.
The upper set was won by Mr. J, W. Robinson, 3t. Marys, Ont., and the lower by Mrs. E. M. Jones, Brockville. On page 339 will be found a description of the animals to which were awarded the prizes Mr. Robinson won amidst very strong competition-forty-two mares were entered for this prize, thirty of which entered the ring The draught horse breeders are to be congratu lated on the display made. It was the centre feature in the horse department at the Coront Industrial-America's great show. Mr. Robin son has cause to
gained by wingained by winning in such class. As man
of our readers of our readers are aware, the dair prize, won wa sard ed at the Provin cial Fair, London, the report of which was given in our last num ber. It is to be egretted that nly two breeds com Ayrshires and Jerseys. Mr. Thomas Guy, of Oshawa, Ont., who is always to the front with his Ayrshires, was ready to compete, as were the ers, W. M. \& J. ers, W. M. \& J. field Plains, Ont. Mrs. E. M. Jones, alone, represented he Jerseys. There is some thing very signifcant in the fact that neither the Shorthorns, Hol. steins, or other breeds, were repre sented. Although the rules were made broad and liberal, and allowed animals, either grade or pure bred, to compete, simply requiring the three cows in each set to be of one breed or the grades of ome man, the not necessarily the property of one macing the greatest value in milk solids for food consumed The rules, as prepared by Prof. Robertson, wer published very early in the season so as priz enable each breed to bat will be continued again next season under the management of Prof. Robertson. The genera requirements and privileges wim be slightly but tairyman who objects to any portion of the rules as previously pub tished, is requested to correspond at once with lished, Jas. Robertson, Ontario Agricultural

College, Guelph, Ont., who will at an early dat make any neoessary changes in the rules as here pleted we will again publish them. We give thi early notice in the hope that each of the dairy early may be represented next year. We also hope that the Holstein and Shorthorn breeders at least may be more courageons next year than they were this. The dairy cow that gives he owner the most money for the food consumed is the one every farmer requires. Unless three separate breeds or their grades are represented
this prize will not be awarded, though it will be this prize will not be awarded, though it wint in on exhibition. A similar prize which will b
the horse or swine departent, wian
announced at a later date. The prizes given thi announced at a later date. The prizes given this
fall were valualle and greatly admired; those to fall were valuable and greatly admired; those
be awarded next year will be of equal value.

-
A Word for
by d. f. wilson, Assiniboine.
Nowadays we see very little in our agriculural periodicals about the Southdown, and they do not stand in the favor with farmers that their merits deserve,--they need just sufficie
ing to put them where they should be. Ampng English breeds of sheep the producing such fine wool or such choice matton. They are the native sheep of the Southdown hills, a low range in the South of England, lying principally in the County of Sesent state of excellence by careful selection, careful selection, and any attempts them by theintro duction of other blood always "end Jisastrously. Now that Canada has live Sheep Breeders Association
there is no doubt there is no dourt of a few years the of a few years th
surplus mutto will be increased very materially and to England we must look for a market for it. Can we compete
with other mut-ton-producing countries, and will England take all Mr. Dryden, in his paper read before the Dominion Sheep Breeders' Association, says: prejudice prevent the use of the best sires from the best mutton breeds. Besides, it is quite possible to create
an increased dean increased deIt is a well-known fact that John Sull likes a good article, and also that he has the mim some, that he can get good mutton in Canada, he will take all we have to spare and at a good figure. So in order to increase the de mand let us give him the best. Ask an English man which is the best mutton, and the invariable answer will be, according to the taste of the individual, either the Little Mountain mutton o Southdown. We cannot produce the Mountai mutcon, but we sar "They are too small." an Ontario farmer say, "They are too small. would ask : Can he prodece land with any other breed? I think not. I am inclined to believe that no other breed will produce as much. They aro a sheep that kill surprisingly heavy for their
appearance, and also dress heavier in proportion
to their live weight than any other breed. In vitality they are unequalled. I once owned two ewes twenty years of age, and I have seen
Southdowns come through the winter under cumstances that long wools would certainly have succumbed to. Their neat, compact forms and pretty fases must ever make them favorites with those who have an eye for the beautiful. But their chief point of merit to the Canadian farmer is the quality of their mutton. No matter how a Southdown is fed, the carcass will always be composed very largely of lean meat of the best quality; they never lay on flesh in the shape of pure fat, which people never want to buy, and if
hey did buy they could not eat.
west eminently suitable for shep risin North

phize-winning berkshires, the property of john snell's sons, edmonton, ont
haniel Benjafield, of Motcombe, Dor of the old established and ane fock grasses are capable of producing mutton of the setshire, a gentleman who has taken a high stand, finest quality. If there is a market, sheep will as a successful breeder and prize winner, at the be raised here in immense numbers. In Ontario farmers will increase their flocks, for no stock is more suitable than sheep (the animals with the tility. But there are other mutton-producing countries that will compete with Canada in supplying the English market ; countries with vast tractsof cheap lands and, comparativels speaking no winter, where sheep are raised in a wholesale way, and at a less cust of production than we in
Canada can raise them for. Our remedy is in Cae quellity Let us supply better mutton, and we
need not be afraid ot competition. We have many breeds of good mutton sheep, but let us raise the best. If Caadanan farmers and stock
raisers will "not let their prejudices prevent the raisers will " "not let their prejudices prevent the
use of sires from the best mutton breed," they will soon crrate a demand in England for all the $\underset{\text { mutton they can supply. }}{\text { met }}$.

## Messrs, Snells' Berkshires.

Our engraving represents a group of imported Berkshires, at present in the herd of John Snell's Sons, Edmonton, Ont., who have stood by the arkshires, unflinchingly, for over twenty years, haracter and quality, having from tima ime, replenished their stock by fresh importa tions of the best that could be bought in Eng and, including a large number of the prize-wining animals at the leading shows in Britain. The group in illustration are a part of their atensive importation of 1889 , selected by Mr . J. C. Snell, which included the first and second prize young boars at the Royal Show, at Windsows from the best herds in England.
Those in the group were selected from the herd
of Mr . Sneilis ju that Royal Star was the most perfect boar 1 aw in England, and though he could not bought to leave the country until he had con pleted the circuit of the shows for which he wi booked, Mr. Snell had set his heart on him, an these lines, which has alwas charecter h aetions, could not rest till by subsequent co respondence and a cable message, he had secure for the head of his herd the champion boar England.
Besides the thirty-flve head of Berkshires in ported by them, the Messrs. Snell also bough over a large consignment of Cotswold sheen, Hills, the fiem leading flocks on the Cotw doubt, go far to sustain and increase the wisf

Royal and other leading shows during the last few years.
The boar Royal Star, by May Duke (1251); able record as a prize-winner during the present year. On account of the awk ward classification of the English Shows, he was obliged to show, in almost every case, against boars from two months to two years older than himself; yet, in seven competitions, including those of the Bath and West of England show, the Royal Countics, the, Oxford and Wilts shows, he was successful in capturing six first prizes and a championship as number for another championship, a record which has seldom, if ever, been equalled by any boar in England. Such uniform success, under the scrutiny of so many different sets of judges,

El the old estabishod and succasfal flocks in Canada for whose record at the leading shows up in the scale of the successful breeders of this country, and the extensive business they have built up, most of which is now upon orders by mail from all parts of the United States and Canada, is a guarantee of the quality of their stock, and of their honorable dealing with those who favor them with their patronage
Trying to stop cracks in cold stables with grain to stock is not economy.
Of two colts similar in disposition and sense, one may develop into a steady and valuable treacherous, and unsafe- all because of a difference in the men handling them.
Dr. R. C. Kedzie says shrunken wheat, which is of small value in making flour, is of relatively less starch, and is proportionately richer in pitro gen compounds.

Chatty Letter from the States. [From our Chicago Correspondent.] Receipts of cattle at Chicago for the week ending Sept. 28th were 82,356 head, being th largest number ever received in one week. The next largest number was for the week ending Oct. 11th, when 76,032 catle arrive, the nex Aug. 20th, when figures show that this season has been quite
record-breaker. The banner week for 1888 was Oct. 22nd, when 71,318 cattle arrived. Thi year's banner week made a gain of 11,000 head over the big week of last year ; and so the business grows. This year's receipts of cattle wil probably show a handsome gain over last year. While receipts of cattle were extremely heav during the past month, the quality of the offer ings was not so good. This was clearly show by the fact that the best cattle sold at $\$ 4.85$ a $\$ 5$. The latter figure was the top for the year, and was reached in July, causing largeor cattle a boom; but there were price to be sustained. Messrs. Morgan \& Gould, the cattle exporters of Oshawa, Ont., have been heavy buyers here the past season. They have lately bought a good many cattle in the country.
Although fat cattle are selling so low, there is an active demand for young store cattle at the low rates of $\$ 1.75 @ \$ 2.75$
The following bit of advice was recently sent out by a stock yard firm to its country friends: "We suggest that, to produce the best results, cattle which you intend to full feed for the win ter market sorink in flesh on account of shor and frost-bitten pastures; as when an animal starts to lose flesh it takes a good deal of corn and time to get him started to fattening, while if he is thriving, the first bushel of corn will increase his weight." Cattle feeding "will be done on a large scale, not because feeders have much hope of making money on beef produztion, but mainly because the country is full of all kinds of feed that must be handled. Texa shipments, on the contrary, have been very
heavy. October prices for range cattle were : Wester beeves, $\$ 3$ @ $\$$; feeders, thern-wintered Texans, $\$ 2.50 @ \$ .65$; through (a) $\$ 205$; yearlings, $\$ 125$ © $\$ 2$; calves, $\$ 1.75$ (a) $\$ 3.50$. Western range cattle are being held back by owners on account of the low prices. Not more than half as many cattle as last year have been marketed by them this season. There has been a good deal of drought in Colorado, Wyom ing and Montana this season, or the shipments of beeves from that section would probably have been less. The marketing of native cows has been heaver Texas and other canning grades were offerings or Yexas
very heavy, prices were the lowest on record, ralging as low as $\$ 1.60 @ \$ 1.75$ tor inferior to fair. Some corn-fed Hereford cows sold at 83.25 . The New York dairy calf business has not amounted to much this year, as Western buyers have not felt like paying enough to encourage shipments the west. A fow car loads on $\$ 10$ per head. A good and sufficient reasou for the smal demand for eastern calves was the fact, that the market, for weeks past, has been hooded in weight from 200 to 400 pounds; and, being than
"between veal and beef," they sold extremely ow at $\$ 1.50$ © $\$ 3$ per hundred pounds. In other ords, western men ill the the anted, and were wis possibly afford to
take.
Half
Half a dozen different Canadian firms have ately been buying hogs in Chicago, viz: W. Davies, J. Racette, W. Morgan, B. Groux, A. S. asterson and L. P. Wiggins. The demand for packing-house property has been brisker thi fall than at any time since the great strikes. In dications p .
ing season.
ing season. October, sold at $\$ 3$ @ $\$ 5$ for inferior to fancy $70 @ 140-\mathrm{lb}$. "natives;" $\$ 4 @ \$ 6$ for 60 @ $80-\mathrm{ib}$. lambs; ; $\$ 3.40$ @ $\$ 4.35$ for Montana,
Oregon, W yoming and Utah sheep, and $\$ 3.50$ @ Oregon, Wyoming and Utah sheep, and There is a
$\$ 4.20$ for $75 @ 90$. 1 lb . Texas sheep. very strong demand for good store sheep. The
have been selling freely at $\$ 3.60$ @ $\$ 4$ per have been selling
hundred pounds.

## shorthoris as Dairy Cow

 The Breeders' Gazette in a recent editorial, commented on the exhibit of Shorthorns at the Des Moines Fair, in September, whereas it says - If there had been any intentions on the shorthorn breeding fraternity to take advantage of the munificient offer of thei national organization, looking to the dairy bree specimens of the race at the annual fairs, on would naturally have expected But the dair field was as usual monopolized by the huge uddered Dutch and the rich-milking Channe Islanders. * * * Is it likely that udder less cows of extremely heavy weights, 'rolling in their flesh, glaringly gaudy about their rumps, with no tangible evidence of their usefulness as milkers and mothers, brought forward, can so fire the prudent husbandman who has calves to rear, and milk, cream and butter to supply, as well as corn to feed, that he will bar gain on the spot for a bull of ome for use on thing so extravagant a price in he hoof of trade, that all this phenomenal dis. helay ffat is exceptionally desirable just now as an advertisement of the breed, even in the face of the handsome bonus hung up by the National Association for a show of pedigreed Shorthorns in milk? * * Where are the miling Shorthorns?Shorthorn breeders, is the Gazette not pulling on the right line? Is there not too much atten tion paid to beef, and too ntte thin for the of possibility, to male not only good, but ex of possibiny, to of many strains of Shorthorns One of the smoothest, evenest herds the write has seen, was that of Mr. Wm. Rupert \& Sons, of Seneca, N. Y., several of whom have made a general purpose per day on grass alone. Shorthorn, and had half the effort been made to make her a special purpose dairy cow, that ha been no mean rival of the best dairy breeds or
the day. And it is not yet too late. There is, perhaps, no breed of cattle so pliant in the hand
of the expert breeder as the Shorthorn. The of the expert biers in the past, and it is to be
have done wonder siucerely hoped some Colling or Bates may $y$ y lost dairy qualities. $\qquad$
and a noisy, louc-mouthed ma
are twings that should never be permitted to

Cattle at the Toronto Exbibition. The show of cattle at Toronto included nearly all of those exhibited at the Provincial at Lon don, with the addition of several fine herds and single animals from many parts of the Province and from Quebec, and the whole combined petent to judge the grandest display of cattle to be seen on any show ground in America.
The reinforcement in the Shorthorn class was made up principally of selections from the herds of Messrs. Dryden, Watt, Redmond, Linton, and High. The judges were James 1. John Fothergill and Hugh will deny. The dethe same animals came in competition here were generally confirmed, but there were two or three notable exceptions. They were cases, however, where the merits of the animals were so nearly equal, that it was very much a matter of taste, and few, even mong the connoisseurs, felt disposed to find fault.
Among the animals coming in for honors here, which were not in the competition at London, we note the imported four-year-old bull Golden Robe, bred by Mr. Campben, or Kin, a massive, owned by Mr. De, K. red bull of fine form asss. Russell's Stanley and Mr. McKay's Victor Hugo Ingram in the section for bulls over three years. Messrs. Watt's very meritorous heifer calf, by the famous Barmpton Hero, was given second place in a very strong ring, and Mr. Redmond's roan, May flower, which was awarded third prize in the same section, Mr Russell's fair Nonpareil still holding undisputed right to first honors. In the section for yearling heifers, Messrs. Russell's red Rosabel was awarded the premier position, white heifer of the from her at Lond fow complained of the former Sylvan ha, aw disposed to criticise, whe the order was reversed.
The most interesting turn of the wheel of for nne, however, was that which, in the section for yearling bulls, placed the Bow Park bull first, and Mr. Currie's Silver Star second. Wo do not feel called upon to say whether it was right or wrong, and we do not remember hearing outsiders say which it was. The judges alone were responsible for the decision, and the puble seemed willing to let the responsibility res there, and were as silent as the whe last first." When "the first wa judge there was not much harm done, or we should have heard more about it. The third prize in this section, was given to a new aspirant for honors, in Messrs. Watt's Musketeer, a blocky, red 'bull of Mr. John Miller's breeding, by his imported Cruickshank bull Vice Consul, the sweepstakes bull of last year. He is like his sire in many respects, and is a worthy is $\begin{aligned} & \text { son. } \\ & \text { The }\end{aligned}$.
The bull calves were a large class of gool average excellence, but with nothing strikingly strong. We are not in a fault-finding mood, but judging by the well-known ostes and prefer view of the current report, that in the case of the yearling bulls, the order of the awards was settled by the question "which would you rather take home with you," we fancy that the same test was not applied in the case of the calves, and this will perhaps account for the way the
prizes went in this as well in the contest for the best four calves.
In the cow class we noticed a new face and form, in Mr. Linton's roan Sowerby's Rose, by Arthur Victor, out of Lady Ann, by Paul Potter, a worthy representative of a worthy family, which has sent out many prize winners to the Royal and other leading shows in Britain, but she, while a good one, with much to recommend her, was not in the pink of condition that is as they were at London.
Mr. Cochrane did not find so soft a place for his Herefords and Angus as at London, for here in the former he found sturdy rivals, besides Mr . Fleming, in his neighbors, Mr. Vernon and Mr. Judah, of Quebes, and Mr. Drew, and Mr. Henry, of Oshawa, each of whom showed capital specimens of their herds, and succeeded in dividing the prizes very considerably, while in Polled Angus, Mr. Craik, of Montreal, made a very ust about as they were at London, but the milk ing breeds were angmented by very considerable ing breeds The
The Ayrshire men found a formidable oppojudges fairly "took their breath away from them," by the way they let the prize tickets go east. We assume that the judges were honest and conscientious, and that they were competent, but we must say we have seldom heard more dissatisfaction and disappointment expressed over ew exhibitors in this class with single animals or a few, were Messrs. McNish, Norton \& Sons, McCormack, and Nicholl Bros.
The Holstein breeders, from their experience with the old fashioned committee of three judges, had become dissatisfied, and like the Israelites of old had asked for a king, or for an expert judge who knew his business, and their request was granted. Mr. Stevens, of Attica, N. Y., was chosen to make the awards, and he went through his work exped the exhibitors were not happy. The class was well represented, not happy. there being ten exhibitors, several of whom showed from ten to fifteen head each, and the display made was very encouraging to those who pin their faith to the black and white as the coming cow, which has come. The Wyton herd was not here, but to make up for it was the fine herd of Mr. John Leys, of Toronto, whose cattle came out in blooming condition, and captured a very large percentage che pres, lus first prize for aged bur on in Agricultural College Farm, at Guelph ; first, second and third prizes on cows ; a fair share on heifers, and the sweepstakes and herd prize. Smith Bros. made a good showing, and won a good share of the prizes. Mr. John Woolhall, of Brampton. won first prize on the two-year-old heifer, Edgley Beauty, a heifer of fine form and rare handling quality.
Jerseys were out in considerably increased numbers over those shown at London, the competition being strong and keen in most of the
sections. Mrs. Jones' herd stood the battle bravely on the whole, but in several cases her animals were downed. Mr. Jas. Clark, of Brampton, had the first prize aged bull in Nabob's John Bull, bred hy Mr. Fuller, a very fine specimen of the well-bred Jersey. Mr.

Turner's herd from the Lakehurst Jersey Stock
Farm, at Oakville, under the care of Mr. BramFarm, at Oakville, under the care of Mr. Bram-
eld, the efficient and agreeable manager, made a highly creditable display, and won substantial
honors, including first and third on cows, a feat honors, including first and third on cows, a feat
that covers the herd with glory, for it is no small undertaking, and no empty honor to meet and
win over the richly bred and useful working win over the richly bred and useful working
cows that were in competition. Amongst the
other exhtititors were Mr. Leys, of Toronto, who secured second prize on his two-year-old heifer,
Lucilla Kent ; Mr. Rolph, who showed several richly bred things. winning first on three- year-old cow; Messrs. Robert McClure, Dodge, Hillang.
han, Bailey and Silworth. Mr han, Bailey and Silworth. Mr T. S. Cooper, of
Pa., was the single judge in this class, and seemed to know how to place them, as he went
about bis work in a husiness like about his work in a business-like way, and dis.
tributed the prizes according to merit, and with Cattle at the Provincial Fair. (Continued from page 312. ) aberdeen angus.
Mr. Cochrane had the show to himself in this class, there being no competitor ; but his herd was fitted to meet strong competition, and a home of the breed. For true character and feed ing qualities, as well as for symmetry and substance, they are models of this fine beef breed, the grand bull Lord Hillhurst standing at the head of the herd, being a worthy representative of his class. All the cattle shown in the class were bred by the exhibitor, which speaks well for his judgment and skill as a breeder, and for the ability of his herdsman, who has brought al his cattle out in such hlooming condition.
JERSEYS.

JERsEys.
There was not a large show of the butter breed. But Mrs. Jones, of Brockville, can always bring
out a show of her favorites-that of itself is well worth going a long way to see-and on this occasion her exhibit was such as would do credit to the breed anywhere. This clever lady has long held a high place among the most successful handlers of Jerseys in America, and the careful observer wil have notced that, he secref success has lain largely in her good judgmen
in the selection of sires to place at the head of the harem. "The bull is half the herd" is a trite saying, but there is more truth in it than most people are willing to admit ; and it is not saying too much when we assert that in the grand bulls Rioter's Pride and Jubilee, the Brockville herd has two of the most valuable sires in existence to-day. The first prize two-year-old and sweepstakes bull, Jubilee, is, in size and indiva, mort, Bull, and Allie of S $A$ son or by Stoke Pogis 3rd; he probably combines as large a percentage of the blood elements of the phenomenal cow Mary Anne, as can be found in one bull, and if there is anything in hereditary prepotency, he can hardly fail to prove the sire of some wonderful workers, and what is still more satisfactory is the fact that his close in-breeding has not produced an animal lacking in constitution, but one showing remark able indications of an extraordinary amount prize and sweepstakes for best female, went $t$ balanced udder and rich skin, with less size and depth than some of Mrs. Jones' cows, but one that is evidently every inch a butter-maker. The to Bertha's Signal of the same herd, both large. substantial cows of fine quality and finish. The
younger things included b promising lof heifers shown by Mrs. Jones, Mr. Queen, of St. Thomas, and Mr. Rock Bailey, of Union, who showed a few very nice ones, among which was the richly bred St. Lambert's Beauty, bred by Capt. Rolph, by Diana's Rioter, and out of Beauty of Lee Farm.
There were but two herds of Hollanders out to represent the breed, those of Smith Bros., of Church ville, and the Wyton Stock Breeders'
Association, and the prizes were divided between them, the majority going to the Credit Valley Herd, which carried off the herd prize and the silver medals for best male and female any age, In the section for aged bulls, the first place was given to the Wyton bull, Konig Nicholas, a massive, imported bull of fine quality. The second going to Messrs. Suith's well-known imported Duke of Etgley ; and the first prize two-year-old and sweepstakes bull was found in the richly by Messrs. Smith bred by Mr. Wrales, of Iowa and deep in the blood of that wonderful cow, Mercedes, whose record has done so müch to popularize the breed amongst dairymen all over the continent of America. The cows were 3 magnificent lot, showing great capacity for milk-ing-the first place being given to Messra. Smith's imported Siepkje, a cow whose whole conformation denotes a persistent milker; and the second prize cow, Cornelia Tenson, of the match for her companion in all that is fair and of good report; the Wyton cow, Atjenette was placed third, and well deserved the place, as her record of $i 0$ lbs. daily proves. The silver medal for sweepstakes went to Messrs. Swith's Belle of Orchardside, a three-year-old cow of wonderful merit, judged by the standard of the ideal dairy cow; and the second prize two-year-old heifer of the same herd, is also one of very ine promise, 2nd, whose ample udder and tine handling make her a hard one to match.
the milinga test.
The competition for the special prize of a silver service, valued at $\$ 65.00$, given by the editor of the Farmer's advocatr, London, Out., for the lot of cows whose milk shows the hargest pronit for the food consumed, was Ayrshires hree cows. It was a disappointment to many that the Holstein men, who have made such large claims for their favorites, had not the courage to enter the contest. We presume they had reasons satisfactory to themselves for staying out, but he public will think they lost a fine opportun. ity of showing, by actual trial, their ability to hold their own in a test whith has attracted thatention and interest. The test was con Prof. in that genial and compore genteman, have not, at this writing, the figures of the reassuming enough has leaked out to warrant us in another victory for the breed, and added another to the long, list of laurels which have fallen to
that lady's lot, who has never failed to show her that lady' lot, who las never failed to show her
faith in her favorites when challenged to a battle
of the breeds on a hutter basis. This is a of the breeds on a hutter basis. This is a prac.
tical test of very great importance, and will go tical test of very great imprrtance, and wifl go
far to settle the crucial question of cost of pro.
ar duction, which it will be acknowledged is a prime factor in the matter of profit and
dairying as in any other line of business.
lean meat, which gave their owners such sweat ing races in the vain attempt to get them int the pens at the London fair juoce. The brerk shire men have shown good judgment in breeedincy for useful and practical qualities, instead orty met poming from those who overlook more useful points, that Berkshires are not so uniform in their color markings as they were many years ago. This is true; but it is the result of the selection as breeding animals, not those that are the most perfectly marked, but those which are most perfectly formed, and have the stronges indications of size, constitution, and the develop ment of loins, hams and sides, which are.or ber of greater importance than any orthor
White hairs on any particalar poins.
I think it will be granted on all hands, that I think it will be granled oalities in any class one of the make good use the the food given them : that in the first place they have a good appetite, that they take a reasonable amount of food with a keen relish, and make good return for the food consumed. This quality we claim the Berkshire has in the highest degree, and we account for it as the result of his vigorous and robust constitution, which goes with which deep ribs and the heart and lung capacits, we all love to see in a horse, cow or pis
Nothing is more unsatis than to see an anima to the generous feeder, than mincing its food and turning away for . Now, if Mr. Green had looked through the pens at the shows, with this point in view, he would not have found this feature among the Rerkshires, but it was plainly seen among the white hogs, and commented upon by more than one observer. The writer has a vivid recollection of a solem visaged so-called Improved Large Yorkshire on ship-board crossing the ocean last summer, would shake his head every time at the plain rations of shorts and water, ate with avidity and redd, wing with brandy sauce everything but plum-puable.
Mr. Green's last 'objection to the Berkshires, is that they do not produce large litters, though he admits that "they usually produce a fair number." We could have shown him at the Toronto Fair a Berkshire sow, under one year old, fitted up in high condition, producing her first litter of twelve living pigs in public, so that there could be no suspicion of fraud or misrepresentation. A Berkshire breeder, a reliable man, told me at the same show, that he has a Berkshire sow which produced mixteen does Mr. Green a birth last spring. What more does Mr. Green
want? What is the use of a sow having more pigs than she has teats? It is a common occurrence for Berkshire sows to ha pigs at a litter, which is quite enough.
I have briefly met Mr. Green's criticism of the Berkshires. I would gladly have expatiated more upon the excellencies of my favorites did time permit. I do not care to attack other bree ls, as I am willing that other people may
follow their fancr, but when remarks that are calculated to mislead the public are made re specting a breed that has made itself a sterling character, I am impelled to " speak out in meet ing anger of the public being led to give u the danger of the pubic being led to give up
what they know to be excellent, and to try
erested parties, who have them on their hands, are diligent in availing themselves of every opportunity to secure a little cheap advertising by writing them up and writing others down. "One swallow does not make a summer," nor does one pork packer represent the sentiment of all the pork packers in a country, and when it is known that he is an importer and breeder of he class of pigs is in impartial witness ; while caimed the he others who have joined in the enterprise of employing a professional writer to write, at so much a page, a pamphlet devoted to sounding the praises of their own stock, were never known to have had goor Berkshires. The two or three others who are breeding Berkshires, and have been represented as having discarded the Berkshires because they each bought a pair of Yorks to give them a trial, have not given
up their Berkshires, and have no intention of doing so. but on the contrary have said that of doing so ; but on the contrary have said tha
they still believe, the Berkshires are "The bes breed for this country.
Yes, the Berkshires are undoubtedly the favor-
ites in this country. as they are in the Old ites in this country, as they are in the Old
Country, where the very Improved Large York shires are not acknowled ged as a pure breed by
the Royal Agricnltural Society or any of the the Roysi Agricnltural Society or any of the
leading fair Associations in their prize lists, and where, at the Royal Show for 1889, the entries
of Rerkshires numbered more than all the of Berkshires num
Whites put together
is One Registry Enough for Shrop shires in America: (Continued from page 307.)
Our ideal sheep, to meet the coming demand or a better mutton breed, a hardier, grothier and more prolific sheep, is unquestionably the Shropshire. A few years ago any black-aced sheep might be sold far a thoroughbred sophire, but hat day has taken its place with ene past. It has been demonstrie is a distinctive breed and hat the hropshe is andine of ancestry to the pure bred flocks well known in England. The American Shropshire Registry Association established a record showing these lines of pure breeding. The work wascommenced in a careful, conservative manner. Erery possible means was taken to guarantee to the Association that the sheep recorded were what they were repre sented to be, and in proof of this fact it is a matter worthy of note that not one single sheep has had to berpent discovery that the count of the sas fititious or the animal an pedigree gen standing there is á rule governing that point within the power of all to inforce. More than twenty thousand sheep have been declined ad mission in the registry because of the insufficient information regarding their breeding, or the reputation of their owners as being careless or unscrupulous stockmen. Persons have made application for membership, and when denied, employed the assistance of their attorneys, and the doors were found closed securely, guarded by relialility- qualificationsessential to membership -and nous have been denied on account of any personal motive. It is not reasouable to suppose that these men, knowing the superior adrantage of registered flocks, would hastily avail themLres of a new record if one were started with less rigid requirements and more liberal rules. at what could such a separate or rival associa.
are suggested to our minds that they would $\mid$ in the September Advocate, has pail it a high
propose to do, first, to admit those flocks that rules; second, that it would gratify the wish of some that Canada shold support registry one and make it for Canada. To all sound thinking men the first part of the proposition would be unsatisfactory. The second is worthy of a more serious thought.
It has been said by one of your own country men, "Undoubtedly it is in the interest of the Dominion to obtain the most intimate trad relations possible with her southern neighbor To the people of this contient the trade the with the other hemisphere, and hence, whatever tends to promote this trade ought to be a matte of paramount consideration." It is a fact, scarcely to be gainsaid, that it is the expectation of importers as well as breeders of sheep in Canada to ultimately find a market for their stock in the United States for many reasons, obviously that the United States is growing pro digously in population, and agricultural interest is extending enormously. The great West is being settled rapidy whin and will, as soon as they are improved and fenced, be ready to receive flocks of sheep.
No frmer call his farm sheep.
factory home, without the possession of a few sheep, aside from the fact that they might be a profitable stock, and a tireless and economi assistant in clearing the land. Farmers loo upon them as an attraction to the place.
The population of the United States is now extimated as $70,00,00$, as against $5,000,000$ for Canada; and it is coned by petent to the United States will increase to 130 000,000 . It is within the expectation of mos of you to see that time, and the future of our sheep industry will certainly keep pace with this increase.
The number of sheep in the United States is 49,237,000, and in Canada 3, 330,000; so th proportion of sheep in the United States, as compared with those in Canada, is about the same as the population-about firs to United States imported fals anima a large proabout whe for sheep. So it is apparent prom the figures that Canada sells her sheep to her southern neighbors. Nearly all Shropshire breeders in the States are members of the present Association ; their sheep are recorded in it, and their interests are with it. If sheep were sold to any of them, they would ignore the fact that they might have been recorded in any other flock book, and would require the sais the be recorded in the $\Lambda$ nean. recorded in the in regard to imported sheereorded here. A English ook, the Shropshire breeders in the Dominion are also members of the Association, and have their flocks recorded in it. These men would scarcely feel that they could afford to ignore the present record and re-record their flocks in a new one. Over 12,000 pure-bred Shropshires have already been recorded, and the fifth volume of the record will soon be ready for distribution. This Associaction has been more world. world.
compliment by saying, "The American Shropshire Registry Association, at the present time,
is dealing liberally with its patrons, and may be is dealing liberally with its patrons, and may be
said to be run on principles fairly satisfactory to all concerned, and model in its managoment at the present time." He then intimates that this liberality may soon cease to exist, and an extor tionate price be put upon the recording of Shrop shires, citing the action of some other shee associations. Our/Association has a large surplus, and is as liberal as any one could ask, consisten
with good policy. The volumes of the record with good policy. The volumes of the record
are given away to the members (except Vols. IL and III.), and the Association offers large premiums at the leading fairs in the United States and Canada, for the best Shropshire sheep, thereby encouraging breeders to raise the highest type possible. Some fear has been expressed, that the fees for recording will be increased. There is no foundation for such a prediction; the fees are as high as they need be to carry on the affairs of the Association, and they are also as low as they
should be to restrict breeders from recording indifferent and unworthy animals.

## We can assure you all that

not increase the present rates charged, and may adopt some system as at present carried on in England, that of recording only rams and recordthe ewes by flocks; but this will only be done when breeders are known to have pure-bred flocks, and have no interest in any but the one kind of sheep.
That system is not as practicable in America as in England, for there the territory is so smal breeder does. If all the American flocks were in one state, about the size of Illinois, the Englis method could be successfully carried out with us Owing to the already existing inter-commercia arrangement between our two countries, it costa just the same to send a letter or post office order to La Fayette as it does to any point, far or near, in the Dominion; and as Indiana is about the connected with all the leading lines of railroad mail reaches that point as soon as it could any ather. As to the present rules, they ar
not a compiation of hasty or indifferent work out a compe the result of long deliberation, years of experience, and the combined expression of th
States and Canada.
Let this thought be firmly established in you minds, that the American Association is, in ever way, as much Cauadian asion itself. The large merated in in Canada are consulted upon every question, and any. suqgestion ourered Cor. Canad has an equal representation on the Board. Let us not get into the unpieasant relations that
rival associations always engender, and often rival associations always engon both, but unite to
criple or destroy the succes of betre
make the Shropshire sheep take and keep in the make the Shropshire
front rank as a breed.
Let us join in aiding each other to get the prices the breed deserves. Elevate the standard, purify ers, and teach them to know and appreciate its worth. Let our Association be a society of men,
equal in power, interested in its progress, each for equal in power, interested in its progg
the other, and all for the Shropshire,
The Jersey Bulletin just about " "gets there"
when it says, ": Not breed vs. feed, but breed and heen is the right way to indite it. There is no
feed case to be tried in which one is plaintiff and the
other is defendant. There is no rivalry as to
which is the better, which is the better, and the more important.
They are partures, and the firm name may be
That They are par
written indiffe
and Breed."

PRIZE RSSAY.

## The Most Successful System o ceding and Caring for Cows in Autumn and Winter

## Although autumn and winter dairying may

 properly be regarded as a profitable industry, it is one in which success can be obtained only by lose and personal application, even before the ows are tied in the stable. Careful and wise rangement of stable and hirst must be constructed in a way that will enable the feeder to feed, lean out, and bed with as little labor and in as hort a time as possible. It must be comfortably arm and dry. It matters little, in my opinion, whether the floor is made of plank, blocks, or brick; but it matters a good deal how it is made, or if the product is to be clean and pare, the cow ust be kept clean and healthy herself, and uless the floor is properly made it is hard to do, or ordin length from the edge of the manger to the edge of the gutter behind the cows; i horter the cows will have to stand in a cramper position ; if longer, some of the droppings that hould fall in the; gutter will fall on the floor, ad if not removed before the cow lies down, will, in all probability, not only soil the cow but also the product. The floor should also be divided ot that each cow will have three and a-half fee widn. The manger ith in width ix inches in depth, and divided into separato parts so that each cow will get her just share and be allowed to eat it undisturbed by her eighbors. There should also be a sufficient supply of water to moiston feed with inside the stable ; if it cannot be obtained in any other way, a cistern should be built.Now, as regards the herd. If we are going to commence, say on the first of October, the cow hould all frese; every cow anld be berfectly healthy. The man who has arrango ments so made and an abundant supply of food provided, may fairly be said to possess all the necessary plant for a successful and profitable business. Now, as regards feeding, it would be impossible to give a rule that would apply to different localities or different times, and say, This is the most profitable food on which cows can be fed, as the diferent kinds of feed cary so multy in time would not to another. I consider, however, that it always pays to feed a certain amount of roots-either mangels, sugar beets or turnips. I know that a great many think that the latter cannot be fed without affecting the taste of the milk, but my experience has proved to me that if cows get a good supply of other food, and peck of cut fod immediately after miking, one not injure the pality of the mitk but decidedly improve it. I sold milk in the town of Galt for number of years, and my customers were always best pleased with the milk when a liberal a mount of roots were fed. My method of feeding is as follows :-As soon as the miking is onsheck say at half-past six in the morning, eed a finhed place as much chaff or good cut straw as the cows will eat in a large box, moisten with water and mix into it with a fork one yallon cow , dividing
the whole evenly between the cows; the advantage of this moistening and mixing being to make rongh feed that would realize very little money in any other way. After this is consumed they are turned out to water at the well. I find when fed roots and moistened feed, that once a day is quite sufficient. After drinking, if the day is warm and fine, they are allowed to remain in the barnyard for some time, during which the stable is thoroughly cleaned out and bedded, and also a small amount of hay placed in each manger, which is sufficient to induce the cows to return to the stable and be tied up without any they are watered and returned to the stable as they are watered and ret is simply ruinous in cold weather to give cows as much cold water as they will drink, and then allow them to remain in the cold. Afternoon feeding is as follows :-Just before milking, say half-past four, the mixed ration is again fed ; after milking, another peck of cut roots. At seven o'clock, feed as much hay as they will eat, which concludes operations for the day. At present prices the above ration will cost as follows :-
Hale bushei of turnips, at 8e per bushel on farm.. One peck of middilings, at sic per ton.
One gallon of bran, at sio per ton....

Making a total for each cow per day of.. Which, at present rates, is probably as economical a day's ration as can be provided. But, no matter what kind of feed is used, or how prefarnis supply is likely to give out, far better buy a little feed than attempt to stretch it by reducing the rations. All profit in feeding for milk comes from the excess of food consumed over what is necessary to keop no an a healthy condition. should the cots get tituted.
Now, as regards milking As near six
Now, as regards milking. As near six o'clock I regard as the proper hours. It should be done as steadily, with as little fuss and annoyance, as possible : no harshness can be allowed. The milk, while being drawn, must be carefully
watched, and if any cow is detected giving what watched, and if any cow is detected giving what appears to be impure milk it must be kept separ-
ate trom the rest, and if she continues giving milk that is faulty in any way she must be sold. All milking must be done with hands that are
thoroughly clean and healthy, and the milk thoroughly clean and healthy, and the milk
removed from the stable as soon as drawn. Wit kemovedreanment nearly all cows can be milked without any force being used ; still, there are
exceutional cases where force must be used. exceptional cases where force must be sed.
find the best way to milk such cows is to buckle a strong strap around the cow just behind her
front legs, and with another short strap raise front legs, and with another short strap raise
and strap one front foot to this, compelling her to stand on three legs. Do it with as little fuss and excitenenta as possible, and allow her to
stand long enough to feel that she cannot kick stand long enough to feel that she cannot kick
without falling before you begin to nilk. If
tind that after this is done a few times she will stand
perfectly quiet while the milking is being done perfectly quiet while the milking is being done
Of course a great aim of the dairyman is to prevent disease ; still, it is inportant to know
what should be done when disease does attack the cow. I will give a few rules regarding some
of the most common. In regard to nilk fever, if competent veterinary is within reach; have him sumbuoned as soon as the disease is discovered.
Milk fever runs its course rapidly, and if not Milk fever runs its course rapidy, and if not
checked soon gets beyond control ; but before thece "vet" arrives twenty five dropls of tincture
of aconite should be given, and shortly after, one pound of salts. Over the loins and along th
back should be rubbed with mustard, and th back should be rubbed with mustard, and the
cow covered with blankets. In cases of flowing
or bloating, the best remedy I have tried is to
pive about one third of a bottleful of Eclectric pive about one-third of a bottleful of Eclectrio
Oil mixed with warm water. If one dose is not sufficient repeat in half an hour. It is seldom the second dose is needed. For lice, damp Be careful not to have too much oil on the cloth,
or you may blister the skin. To conclude, the or you may blister the skin. To conclude, the
dairy business is one of many details, attention
to each of which will largely contribute to the dairy business is one
to each of which will
success of the whole.

Holstein-Friesian Cattle. (Continued from page 307.)
GENERAL CHARACTERISTICS
Color.-There have been animals of differen colors in Holland-black and white cattle, either color predominating; fallow and white; black cows with a white blaze in the face; black onea with a white head ; speckled black ones, and red and white ones. In America the favorite color 1 black and white-some preferring more white others more black.
Size. - There are three sizes mentioned in Hol land, when speaking of their cattle: very large
medium and large. Cows run from 1,200 lbs $\begin{aligned} & \text { medium and large. Cows run from 1,200 lbs. } \\ & \text { to } 1,700 \mathrm{lbs} \text {; bulls from } 2,000 \text { to } 3,000 \mathrm{lbs} \text {. }\end{aligned}$ Being highly developed in the hind quarters, thes give most beef where it is best and most expen sive, and it is of excellent quality. They are strong, robust and healthy, and eat what is given them, and, as a rule, do well on all kinds of food Frrm.-There are four so-called forms : (1) Milk ; (2) Milk and beef ; (3) Beef and milk (4) Beef.
(1) Milk Form.-This means that the cow is wedge-shaped, large behind, broad and deep, light in front shoulders, narrow at top and wedg ing downwards, so that the cow is wedge-shap and gracefully set; legs fine ; head long broad between the eyes, not feshy, neatly cut, larg full eyes; well-arching ribs, broad apart ; mam mary veins large, double extension; udde capacious, flexible; hide soft and mellow; se cretions olly; horns bent down and forward quite short.
(2) Milk and Beef Form.-The cow, in this form, is not strongly wedge-shaped ; he shoulders are moderately thick, deeper and broader than in the milk form, round an squarely built ; but, in all these points, a ten dency to have therm stronger than the eef points.
(s) Beef and Milk.-This is similar to the tes and is more strongly developed.
(4) Beef Form.-In this form the wedge sha is not noticeable, but the animal is heavy in front,
in size.
The first form has some of the most noted cows of America in it, but that form is no nearly so common as the second one. Many of he first-class breeders are endeavoring to retain their cows the hol ng wany breeders to get and breed for the cond. Many of the smaller herds are fitting heir cattle for the second, and breed for it These animals are the best general pupose cows and in this class some excellent cows are found and records are made in this class, sometimes qualing those in the first.
The third class meets with very little en couragement among breeders or fand, and
ireetion; whilst the fourth class is scarcely known, exce
Prepotency.-When an animal has certain qualities strongly developed, and has ancestors with these same qualities, it is only natural to think that they will be strongly impressed upon his offspring. The Holsteins possess the dairy qualities in a marked degree, and have been purely bred for centuries; hence it is proper to their progeny. This is borne ont by fact. n their prog ine the dairy form and power f producing milk and butter. This is seen hroughout many parts of America. One example is, that at the Minnesota show, last year, grade Holsteins took all the prizes offered to grades for the butter tests. They possess, in a narked degree, the milk-producing qualities of the pure-bred. It may be noticed, in a similar manner, among pure-bred animals: Mercedes, xcelled as a butter cow, giving 24 libs. 6 ozs. in seven days ; 99 ibs . $6 \frac{1}{2}$ ozs. in thirly days. Her and gave 26 lbs .13 ozs of butter in seven days. She is a full sister to Mercedes Prince, who has a daughter who gave 25 lbs. $15 \frac{1}{2}$ ozs. of butter in seven days. Thus, daughters and granddaughters inherit her qualities. This is also noticeable among the Netherland cows, and in many other strains. (The word strains shows that there is power in animals to impress their qualities on their offspring.)
Production.-According to the best authorities on the subject, these cattle give from 5,000 to $12,000 \mathrm{lbs}$. of milk in a year, in 100 l and, the America they have, in many places, exceeded the records of their native country. Records of from 50 to 100 lbs. of milk are quite common, and from 8,000 to $20,000 \mathrm{lbs}$. in a year are becoming quite plentiful ; whilst a few have exceeded these large records, and have gone from $20,000 \mathrm{lbs}$. to $3 \mathrm{c}, 31 \mathrm{slsh}$. in a year.
They give from 10 to 20 lis
They give from 10 to 20 lbs . in a week, and many have given over 20 ibs ; for example:
Lady Baker gave 34 lbs. 6 ozs. in seven days,
add the and the owner gives sworn proof of the correct-
ness of the test; DeKol 2 nd gave 33 lbs. 6 ozs. ness of the test; DeKol 2nd gave 33 ilis. 6 ozs.
in seven days; Gerben 4th, 32 lbs.; Clothilde,
 Aaggie 2nd, 26 lbs. 7 ozs.; Impkjes, as a three-
year-old, 25 lbs. $15 \frac{1}{2}$ ozs.; Concordia, 24 llss.; Princess of Wayne, 23 lbs. $6 \frac{1}{2}$ ors., and scores of averaged 23 lbs. $\frac{1}{2 z .}$ of of butter in seven days,
an eighten of another averaged 21 lbs. $8 \frac{\mathrm{z}}{\mathrm{z}}$ ozs. and eighteen of another
of butter in seven days.
The following show the thirty-day records: Princess of Wayne, 91 los. $\frac{1}{2}$ ozz; Carlotta, 91
1bs. 24.1
ozs.; Aaggie Beauty
2nd, 94 lbs. 153 Pbs. 23 ozs.; Aaggie Beauty 2 2nd, 94 liss .
ozs.; Netherland Dorinda, 96 lbs. 24 ozs. Mercedes, 99 lbs. $6 \frac{1}{2}$ ozs.; Arges, 100
and Aaggie 2nd, 105 lbs. $10 \frac{1}{2}$ czs.
The quality of milk from these cows is very
good. It required 12.58 lbs of DeKol's milk to make a pound of butter, 18 lbs . of Lady Baker's,
 of Carlotta's.
The percentage of caseine is also very large, and
good results have been shown of their qualities good results have been shown of their qualities
as producers of cheese-forming material. To sum up their dairy qualities, it is safe to say that, as milk producers, they have no equals,
From the public tests in the United States, open From the public tests in the United States, open
to all breeds, they have taken a large percentage to all breeds, they have taken a large percentage
of first prizes for the greatest amount of butter
for for the one, three and thirty day teats, so that
they stand ahead as butter cows, and manager they stand ahead as butter cows, and manager
of cheese factories and creameries speak very of cheese factories and creameries speak very
highly of them, so that, as a general dairy cow,
they hold a foremost place,

Constitution and By-Laws of the Canadian swine Breeders'

## ssoctation.

preamble
The object of the association shall be to en-
courace the interest and improvement in the breeding and management of hogs, by the dissemination of reliable and practical information on the subject; to co operate with the
officers of the various fair boards in making large and attractive shows of hogs ; to present to
the fair boards the names of such men as are competent to act as judges of the various breeds of hogs, and in every other way to forward the
interests of the hog breeders, and to endeavor to instruct and interest the farmers of Canada in instruct and

CONSTITUTION
Article I.-This Association shall be called Article II. - The officers of this Association shall consist of a President, Vice Pressident, see retary, Treasurer, and seven Directurs, one th Executive Committee shall consist of the President, Secretary and Directors. Five members or
said committee shall constitute a
a said committee shall constitute a quorum or do
business at any meeting, when all the officers have been previously notified by mail that said meeting would take place
meetings annually, previous to the first of April each year, on such dates as the Executive shal decide, suitable notice of which shall be given to
all members, and the election of officers shall be all members, and the election
Articler IV.- Any person may become
member of this Association by signing the Conmember and the payment of one dollar. The dues shall be one dollar per year. Assessments
of not more than one dolar on each member, in
any any one year, may be made by the Executive Com
mittee if the expenses should require the same Each member shall be entitled to a a copy of a papers or circulars issud by the Asso this Constitution must be presented in writing, and at a regular meeting previous to the adoption of the
same, and must be supported by a majority or same, and must be suppors present.
uties of officers.
Section 1.- It shall be the duty of the President to preside at all meetings of the Association gestions that he may deem in the interest of the Association; and also to meet with the commit tees when required, and to fill all vacancies in
the offices that may occur, and appoint all sub the offices that may occur, and appoint all sub
committees, unless otherwise ordered by the A sociation.
Section 2.-It shall be the duty of the Vice President to aid and assist the President. In
the absence of the President the powers and the absence of the President the powers an
duties of the President shall devolve on the Vice President
secretary
Section 3.-It shall be the duty of the Secre tary to attend the meenting one A cossociation keep correct minutes of the same ; conduct as be
the correspondence, and receive all moneys be longing to the Association, and immediately pay them over to the Treasurer, and his book shal
be open for inspection of the Association, eithe be open for inspection of the Association, either
through its officers, or committees appointed for that purpose.

> treasurer.

Section 4.-It shall be the duty of the Treas urer to receive all moneys belonging to the Asso
ciation giving his receipt for the same, and pay ciation, giving his receipt for the same, and pa3
all billd and accounts that have been approve by the Associat
and Secretary.
Before eutering upon the duties of his office he shall enter into a bond with security when re quired, which sh.

Section 5.-The Board of Directors shall make such suggestions as they may deem necessary for
the benefit of the Association, and look after the
general interest of the same, and to attend
spectal mretings.
Section 6.- Special meetings may be called ly the President add Secretary, seven days notice
being given to all members as to time and place f meeting.
debate.
Section 7.-No member shall be allowed to have had a chance to speak; and in no case shal nore than ten minutes be allowed for any one
peech, unless by permission of the meeting. additions and amendients.
Section 8.-Any additions or amendments to these by-laws must be preesented in writing to
the Secretary two months previous to the annual mee Secretary two months previous once notity all meeting.
members
by post. Such a a mendments shall re quire a two-thirds vote of the members present
to pass,
quorum.
Section 9.-Not less than seven members shal ation.
Section 10.-Any member being charged with Silful misrepresentation or dishonest or unfair dealing in connection with the swine interest Committee, sud if said charges be sustained he shall be expelled from the Association, and it
shall be the duty of any member knowing of any hall be the duty of any member knowing of any the same immediately to the Executive Commit tee in writing.
Auditing committre,

Scction 11.- The Association one, whose duty $i$ shall be to audit and examine the accounts o meeting.
Section 12.-Members must have paid thei nual fees before being entitled to vote. ${ }^{\text {. }}$ lect honorary members at any of its regular meetings, but sach election must be endorsed by wo-thirds of the members present.

The order or minutes of previous meeting.

1. Reading minutes of previous
2. Report of committees.

New Business.
Addresses, discussions, \&c nnual meeting.
9. Adjournment

In our last issue we promised to publish th
bove constitution at an early date; we do so now, and hope it will encourage breeders in the the various Provinces to assist this good work
long. Branch societies should be formed in long. Branch societies should be in industry will be greatly benefited, farmers and breeders
will be brought more closely together. The will be brought more closely together. Th
ystems of feeding and breeding, practised by ystems of feeding and bred by this means be. come more generally known, and large pigs à
an early age will more frequently be found in n early age will more frequently be round
the farmers yards.
Keeping pigs a year, feeding hem poorly for eight months, and stuffing thenh or four, is not a profitable way to produce pork
The hope of the Canadian farmer is to lessen the cost of production in every branch of the farm. Breed sinitable animals and feed them properly
The following poem deals aptly with one or The following poem deals aptly
these necessities to success :-
aood-bye to the mongrel sow.
Geod-bye old sow, youll have to go
 But we can't stop to score them through
You're lank and flabbv, to be sure :

Your back is sharp, your nose the sa


I've seen those "Berkshire", obhape you bet
So now, old sow so you"l have to ket, For every squeal of your lank form
Proclaims of wasted " milk and corn."
 Tve eearnear thateches on my knerret how todo
Keep "pure-bred " swine, not such as you. Such mongrel swine no more Ill feed,
Heneeforth Tll hive a better breed-


Ghe Dairy.

## Single Cow Mik Test at Londo

 Provincial Exhibition.Ayrshires-Class 18, Sec. 2-1, Ada-882property of W. M. \& J. C. Smith, Fairfield Plains; mith, Fairfield Plen
Jerseys-Class 18, Sec. 3-1, Miss Satanella roperty of Mrs. E. M. Jones,
Brock ville; ; $\boldsymbol{2}_{3}$,
Lulu Delle, property of Mrs. E. M. Jones, Brockville.
Devons-Class 18, Sec. 5-1, Rose of Cobourg, roperty of S. Harper, Cobourg ; 2, Rose, th
roperty of W. J. Rudd, Eden Nills. Sweepstakes Prize-Rose of Cobourg, Devon
cow, owned by S. Harper, Cobourg.

## Points in Butter Practice.

Cream from 200 pounds of milk of Jersey grades as churned at 62 degrees, in twenty-five minutes, the recent Ballston Butter Conference. Your correspondent took charge of the operation, bring g the butter on the worker in nice granula ondition. While thus engaged Colonel Curtis atertained the audience by hor in the granular Them and the use of brine in washing for more erfect cleansing of butter from buttermilk. Mr Greene explained that butter, as respects one of its chief characteristics, namely, flavor, is fixed before the cream entersthe churn. If sour, bitter "old flavored," or off-flavor, in any respect, it is not the fault of the churning or after-handling, but it may be in the food of the cow, negleet to ventilate the new milk and rid it of animal odors, or there is a neglect akming. In any of these ther befor a of churning or handling the butter can restore its normal purity of aroma.
So when you expect the buttermaker to take reams of all flavors, good, bad and indifferent, nd turn out only the best-flavored butter, you xact an impossibility. The way to secure best uality butter is to pave the way by providing best facilities. This does not mean any particular tyle of creamer, or centrifuge, or churn, or butter worker ; it meanse adapted to the system employed, old water and plenty of it, and the careful ob servance of such rules as everyhody ought to understand. In my list of the best facilities I do pilt-edge butter made with use of ice than without it, and yet, if you are lacking in the best means of securing the right temperature to air or watefr
ake ice as the next best means. Good butter is often made without either skill or care by mere accident, but to give any assurance of succesa you must add to carefulness.
substitutes for best facilities and secure prime
abe sien sind moduct, but facilities can.
and care.-[H. C. Greene.

John Gould writes the Orange Judd Farmer that he has just compieted a hundred ton sill the cost of $\$ 43$, besides four days work of hion awn. He lives twenty miles from Cieveland
Ohio, where lumber costs more than in Ontario

## Wheat Bran as a Dairy Ration.

 Mr. W. J. Webster, of Maury Jersey Farm, Columbia, Tenn., owner of the celebrated Jersey cow, Toltec's Fancy (who made a pound of but ter from less than five pounds of milk), has been startling some of the old-timers by asserting that hran, while adding to the quantity of milk, will not add to the quality. We must confess to a certain amount of scepticism ourselves on the ter has had a large experience in testing cows. But now Mr. Farle, of Trenton, N J., speaking But now Mr. Farle, of an extended experience in testing cows for butter, confirms Mr. Wehster's views, and recommends an equal quantity of ground oats añ cornmeal, with a feed of two quarts of bran and one quart of oil-meal daily. Other experts ad vise feeding equal quantities by measure of bran, cornmeal, and ground oats, with one quart of cottonsed-meal or oil-meal additional daily. From experience, we prefer the cotton-seed mealin fact, at present prices, it is the cheapest food in fact, at present prices, it is the cheapest food
in the market for cows, as far as it can be fed with safety; of course it is too highly concen-
trated to be fed exclusively, but iu conjunction trated to be fed exclusively, but iu conjunction
with bran, ground oats, and corn, is very satiswithory.

Au Ideal Dairy Cow.
by prof. jas. w. robertson, gublph. A cow for the dairy is valuable in proportion to her power to yield milk at a profit, to drop valuable calves, and to produce beef of excellent size of her body is of secondary consequence, but its quality is of prime importance. Her organs are to be considered, mainly, as the parts of a living machine, acting for the accomplishment of the end, for which she is kept by her owner The kind of constitution which she has, will be indicated by certan external evidences, which are commonly called "points." A strong, healthy constitution, wherome milk at a profit, the production of wholesome milk at a pront,
can be possessed by only those cows which have large heathing capacity, vigorous circulation of large breathing capacity, been consumed. The temperament which cause a cow to direct the energy derived from her feed to the production of milk, rather than to the for mation of beef, is called the miking or nervon temperament. The presence of these two desir able qualities, viz., a strong, healthy constitu tion, and a milking or nervous temperament, will be shown by the following points, which ar placed in the order of thair
of large milk-making capacity
of large milk-making capacit

1. The cow should have
gland is adapted to the yielding of quantities of gland is adapted to the yielding of quantities of
rich milk in proportion, as it is long, broad and deep in size, and of a fine elastic quality. The very pliable.
2. The skin of the cow should be mellow, an easily movable on the ribs and rumps; its cover ing of hair should be soft and silky.
3. The barrel of the dairy cow is reyired to
be large and roomy ; the ribs should be broai and wide apart.
4. The cow should be broad across the loins
her rumps should be broad and long; they shoult herso be wide across the head of the tail ; the hip of the cow should be thin, and not closely joined
behind for a few inches above the udder. That formation is called an open twist.
formation is called anl open twist.
5. A comparatively long face, with lalge
prominent eyes and a good forchead, are good points; the muzzle should be
neck should be tapering and fine.

## The Dairy Building at the Pro-

 vincial Exhibition
## Upon entering the main door of the dairy build

 ing, our attention is first attracted to a magni ficient grain exhibit from Che Ontario Agricul C. A. Zavitz, a college graduate, and assistan superintendant of the experimental department. This exhibit reaches from the floor to the roof, and extends forty-five feet in length. Not only is this one of the most interesting and instructive features of the Provincial Exhibition for farmers tut the neatness and beaity throughout is admired by all. Along the lower part are six rows of glass grain bottles, running the whole length of the exhibit, and presenting to view some thre hundred different varieties of cereals from various parts ofAmerica.
From these we turn our attention to the hand some display of grain in the head, as represented apon the wall above the rows glass jars, con and barless, 11 grown during 1859, at the colleg farm; while at either end may be seen some of the best of the seventy varieties of corn grown in the dairy department. Taking this exhibit, as a whole, it is the finest we have ever seen in Canada, and certainly reflects creditably upon those in authority at the college.
On our left is the Manitoba exhibit, which ccupies a central place in the building, and is andsomely arranged. It contains a large col ection of grains, grasses, vegetables and dairy products of various kinds, and which bear con clusive evidence as to the productiveness an ne quality of its varions agricultural products, The next is the cheese exhit, which that the cheese industry of our province ad and in one such is the nature of his feature of the exhibit, that hundreds exclaim "Where did all these cheese come from?" and ertainly they are worthy of praise, as they conthin the make of our most noted cheese experts fom all parts of the province, and the partie whose duty it was to judge this class had a diffi cult task to perform.
Opposite to this we see the butter, which, though not as extensive as the cheese exhibit, ontains numerons lots from some of the leading reameres and tor tha. Many of the pacrialy those from And certainly the Ontario Cream cies' Association deserves credit, as well as the manufacturers, for bringing the standard of our butter industry to a higher plane, and it is to be hoped the government will continue to foster this Association till we shall have as good a repuLation abroad for our butter as our cheese has attained. Forenost among the exhibitors for creamery goods are: Isaac Wenger, Ayton ames Struther, Owen Sound ; S. V. Dipsey Durham, and Arch. Mark, Wanstea
Pusing on, we come to a raterwell, af Caspor all, which is worthy of notice ; also an exhibit of hutter cylinders, by S. J. White \& Co, of Belle marketing prime butter, as they are made from an odorless wood, parafine lined, and of various
sizes, holding from two to ten pounds of butter, sizes, holding from two in such a way that the but
is kept perfectly air-tight till required for kept perfectly air-tight till required for home ise, when the cylinder can be slipped off and leave
the roll of butter complete without a break ; also, he exhibits a patent butter box for holding pound prints, which, from the pecaliar nature of its construction, keeps the butter as cool as any refrigerator, and can be shipped to any reasonable distance in this condition. Both of these inventions are the outcome of the Ontario Creameries' Association.
We continue our way round to the other side of he building, which is handsomly decor ted with
honey and maple syrup, put up with such neatness oney and maple syrup, put up wih such neatness
as to uake one's appetite crave to sampl it ; and, ast of all, we come to the dairy machinery-tools, hurns, etc., many of which are
tended remarks, but space forbids.

## objections to the Butter Machine.

 In the August number of the advocate we gave the first account of the wonderful Swedish butter extractor, which seems to have roused great interest in those of our readers who are engaged in butter-making. Very many inquiries have been made of us as to its merits, and many objections made asto its usefulness. We wish to be plainly understood in this matter: we don't know, and don't intend to think we know, all about this machine until it is in actual operation and the product is satisfactory. When it makes as good butter as the best systems at present employed, and makes as much of it as can be obtained by setting, skimming and ripening cream, then, and then only, are we prepared oo pronounce it a success. On the other hand, we are prepared to weet very many, we might say all, the objections that harg against it in will not keep well-as that made from ripened cream, hence the extractor is a failre, Well, why will it not? Ripening or acidifying enables the churn to gather the particles of cutter fat together free from other matters, and thus a purer article of butter is produced, which will certainly keep better than sweet cream handled in the same way. The same process of acidifying cuts the viscous sack or cell surrounding the globules of fat, thus allowing them to come in contact with each other, which they could not do before. We see no reason is is claimed for extractor on these grouns. the fat from all other it, the machine eliminates that alone, we see no reason why it would not keep as long and yield as much as by any other process. The question has been asked, "If ripening cream gives the but ter a bettê flavor than by churning it sweet, why will a bad flavor be acquired so readily by a small amount of over ripening?" This is, however, perfectly plain. The good flavor acquired by ripening is not in reality anything added to pure butter fat, but the condition of the cream. is such that more of the foreign maler in thus inated, and the product is pure not of other giving the flavor of matter, casen this we repeat, if it does, as well as the more tedious process of ripening, its advent should be hailed with delight. But deep seated prejudice is hard to overcome, and as an old gentleman remarked oa the new version of the Bible, "The old one is good enough, it can't be improved on ;" so we find very many people who
thiuk thêr methods good enough, and will make all kiuds of objections (except valid ones) to the all kinds of objections (+xce,
introduction of better ones,

## Rich Milk．

Last spring Mr．W．J．Webster，of Columbia， Tenn．，tested his Jersey cow Toltec＇s Fancy Tenn．，tested his Jersey cow Toltec＇s Fancy
27172 ，when，as he claimed，she made a pound of butter from less than seven pounds of milk． This statement was questioned in many instances which led Mr．Webster to state to the world that he would test Toltec＇s Fancy again thin season，and allow any and all persons intereste to watch the test．Mr．Webster placed the tes in the hands of Isaac M．Ross，whose reliability is unquestionable，and after carefully guardine
the product with lock，key and seal，he makes oath before J．J．Elam，Notary Public for Maur County，Tenn．，that the cow made a pound of
butter from less than five pounds of milk，and butter from less than five pounds of milk，and
yielding two pounds eight and a－half ounces per yieldi
day．

## Milking－Stool Reflections

A school－day conundrum used to run this way， ＂Why does a dog wag his tail？＂After the new boy and girl had screwed up and down the skin of the brow－（how much does that act help the mind in arriving at a conclusion ？）－－it would given up．Then came the moment when the oxperienced pupil could glory in displaying his towering superiority of knowledge．＂Give it cannot wag the dog．＂It is always easy to arrogate the unreal superiorty or a leared overy problem．The habit does not belong exclusively to little folks，but is the common and prized possession of little minds．These reflec－ tions had their primary censcious impulse from a mental enquiry，suggested by a switch from the cow＇s tall that nearly knocked my old hat on， ＂Why does a cow switch her tail？＂If she does so to an annoying degree at this season of the vear，an examination should be made as to The the cuily use througho the winter．＂So bossie ！So ！＂
What for do I keep cows anyway？Certainly not fur the fun of it．I am not enough of a calf to find it at all funny to milk cows night and morning ；I get no specially relished kind of enjoyment from feeding them；and the cleaning of the stables is not an amusement for which feel eager．No，indeed，not for the fun of it It does not inhere in me to be so fond of seeing indolent－looking cows lazily lying about inses by their proximity or possession，A well－bred bow－that is，a well－hehaved cow（good breeding always manifests itself in proper behaviour）－is pleasing to the eye and especially pleasing to the man who has an eye to profit．I keep my cows for profit Some of them have not been paying me－they have been living on me．＂So，bossie So！＂But now the conclusion of the matter is this：－I will no longer keep any kind of a cow that does not serve me by making a pront me；I have quit living for the sake of keeping
cows；my cows will have to quit living fo themselves only；＂and only＂those that live for
me will live on me．＂So，bessie！So！＂ I must now feed my pigs，and if anybody
wants to send me a／subject or two for＂reflec tions they may address me at the ADVocat Office，London，and I will write nothing that
will reflect on their courtesy or my owu modesty will reflect on their courtesy or my own modesty
Yours reflectively，
I．A．H．SHort．
The N．E Farmer mentions that of 400 analyses of mid
legal standard．

Farming Affairs in Great Britain． （From our English Agricultural Correspondent．） London，Eng．，Oct．8th， 1889
the dairy show.

The fourteenth annual show of the British Dairy Farmers＇Association，held in the Agricul－ ural Hall，London，closed this evening．In some respects it has been an improvement on
ecent shows，but Londoners are tired of it， and do not attend in sufficient numbers to make it pay．It should be，and probably will be，made migratory show，visiting some great centre of he dairy districts every year．The principal ntries，compared with those of last year＇s show， were as follows：－Cattle 373，against 276 ；pig gainst 178 ，butter 248 ，against 300 ；cream， ggs，bacon and hams 98，against 109；poultry nd pigeons 3241 ，against 3354 ．The cattl vere chiefly made up of Jerseys and Guernseys， Shorthorns being unusually few，while Red Polled cattle and Ayrshires were very poorly re presented in point of numbers．The prize list would occupy too much space in this column， and it will suffice to give the list of winners of champion prizes for the several breens ：－Bes Jerseys，Lord Rothschild，Wilts ；Guernseys，Mr G．Long，Ogbourne，Wilts ；any other breed， Mr．J．Holm，Japston，Renfrewshire．The valu－ able little Kerry and Fexter Kerry cattle were better represented than at any previous dairy show ；some of them，sold yesterday by auction， realized 18 to 20 guineas，and one sold at 25 guineas，and another at 33 guineas．The cham pion Ayrshire cow was sold at 40 guineas，and，as she is a perfect beauty and only a little years of age，she is well worth the mones． seys， 10 Guernseys，and six of other breeds were entered，and the results were made known yes terday，after the milk had been analyzed by the assuciation＇s chemist，N．Loyd．In the Short horn Cow Class，Mr．John Evans，of Burton， Lincoln，is first，with Molly，a cow not noticed by the ordinary class judges．She is over seven years of age，and has calved 54 days．The mean weight of milk per day which she gave in a trial of two days was in the morning＇s milk，and 3.7 in the evening＇s milk．Comparing this cow with a first prize Jersey，which also won in the Jorsey Butter Test， she stands far ahead in quantity of milk，but still more below in proportion of butter fat．The Jersey，belonging to Mr．Brutton，of Yeovil，gave 3blbs．of mik per day，contar butter tat in the morning，and 855 in the evening milking．She
sing obtained 117.2 points，as compared with 110.3
awarded to the Shorthorn winner．$M$ ．Spencer， awarded to the Shorthorn winner．Mr．Sencer，
of Highate，is second in the Shorthorn Cow
or Class with a cow which took the reserve ticket
in the ordinary class judging．For Shorthorn in the ordinary class judging For shorthorn
Heifers，Mr．Church，of Willington，Beds，is first with a heifer not noticed by the class judges， and Mr．Evrington is second with a heifer which
was placed second in her class．The first prize Jersey cow has already been named．The sec
ond，belonging to Mr．Champion，of Hassocks Sussex，was alsos second in the Jersey Butter Test
and was highly commended in her class．
Lord and was highly commended in her class．Lor
Rothschild is first in the Jersey Heifer Class and Mr．Carter，of Puckpool House，near Ryde， is second，neither heifer having been noticed in
the class judging．For Guernsey cows and the class judging．For Guernsey cows and
heifers，in one class together．the Express Dairy Company and Sir F．A．Montefiore are equal
firsts．The cow shown by the Express Dairy

Company gave 401tbs．of milk per day，and the
other cow，bracketed with her， 30 juts．
milk of the lat ther was the
much richer in fat milk of the laiter was much richer in fat，the
percentage of which was 6.65 in the morning＇s，
per and 6.44 in the evenings milk．The company
also gained the second prize．Messrs．Rumball \＆Sons，with a Red Polled cow and a Holstein， nd Mrs．Harrower，of Heswall，Cheshire，win
an Ayrshire，take the equal awards in the mixed
Class
These results class These results are given at more length，
because they contain interesting figures，and also because they show how difficult it is to test a cow＇ value by the eye．By far the most remarkabl result brought out at the show is that of the Jersej
butter test．The winner of the first prize
年 Baron＇s Progress，a cow over six years old，be
longing to Mr．Brutton，of Yeovil，gave the ex raordinary quantity of 31 ys ．5oz．
it
at the rate of 2315 s ． 50 z the highest record ever published for a Jersey or any other cow in this country，and it was at
tained atter the cow had been 113 days in milk． tained atter the cow had been 113 days in milk
The quantity of milk given in the day，in two milkings，was not large．It was 37 ths． 60 ．．．，so
that the quantity of milk to the pound of hutter was only 11.3 ．The cup in the Cuernsey Buttel
Test fell to Sir $F$ ．Montefiore，for a cow whose day＇s milk yielded 1 ith ． 13 多名，of butter．There
were more interesting buter making contests， were more interesting buter
excellent shows of pigs，poaltry．cheese and but－
ter，but a poor one of goats ter，but a poor one of goats．The display of
dairy implements and utensils was an excellent ne．
Extracts from the Annual Report the Dairymen＇s Associa－ ton of Western Ontario．
Professor Roberts，Director of Cornell Univer． sity，Ithica，N．Y．：－I have experimented a little in regard to finding out something of the effect of disturbing milk cows．I find they vary very Fi．They are susceptible to external causes． and invented verious deviees for frightening her， and inyented various deviees for frightening her，
by chasing her with men，men with blankets over their heads，and even with a man on horse－ back，and then tested the milk for quality and quantity．This was done about nine or ten o＇clock in the forenoon，of course the cow had been milked in the morning．On investigation in the milk．
Prof．J．W．Robertson，Ontario Agricultural College，Guelph，Ont．：－The sphere of each far－ mer is－well，I suppose to make money，if he can．The sphere of the farmers，as a class，is to produce food for the race，and the farmers cannot the aid of dairy cattle．The plant is merely a contrivance of nature，wherein and whereby the energy of the sun is stored up for men hereafter Men are so constituted that they cannot use all the energy，which the sun has stored in the plants grown for food，by direct consumption． They can use the grain，and the cow can eat the balance－the chaff and the stalk－and thus w make our land more productive of good food．So long as any tribe ore inst on the confines of bar barism ；and as they emerge from that state they employ other methods of producing food upon the farm．The cow is an animal contri vance in nature，whereby the，to man，unsuitable unpalatable，and indigestible parts of the plants the farmer grows，can be translated into food So，to sum up，dairying in the past has given value to an invaluable food supply，and thu made it possible to support a larger population support a larger rionlation，you make it possibl to employ a larger number of persons，which
does good to every class of society. Dairying does good to every class of society. Dairying
has restored the fertility of many farms, which is an item in our national prosperity that no man can afford to overlook. It has increased the earning power of the farmers, and has put a marketable value into their fields, worth at least $\$ 50,000,000$, in our province capitalized within wenty years ****.
Mr. Leitch, Strathroy, Ont.:-I am afraid if
ou make those boys produce double the quantity of dairy products to-day that yon will not get a market for it. There is a possibility of the
market being glutted, it was pretty near that matage last summer.
Mr. Chadwick, Ingersoll:-There is not the
Mage
Mr lightest danger of a sarpias of goth cheese, There is only danger in producing that article
which will not meet the requirements of the market. Go on and produce every pound of
cheese that you possibly can, but let it be of cheese that you possibly can, but let it be of
first-class quality. You will find a price for it first-class quality. You will find a price for it
better than anything you can devote your energies to.

## 23 eterinarg.

## Goitre in Lambs.

by c. n. sweetapple, v. s., london
The representative of the Advocate, on his re turn from his recent trip to the North-western Provinces, has reported extensive losses among lambs from "goitre" in some distriets that he had visited. In fact, in some places the whole or almost the whole crop of this season birth or
had died of this disease at the time of bir had died of this disease
very shortly afterwards.
very shortly afterwards.
"Goitre" consists of an enlargement of the thyroid glands, which are small, soft, spongy tion of the windpipe. The functions of the glands are not clearly understood. Lambs may be occasionally born in any flock with these glands enlarged to the size of an almond or a walnut, and having the feeling of a hard, sepa rate body lying beneath the skin. Lambs thus affected are often small and weak, with the mus cles imperfectly developed, and the bones unna turally small. These weak lambs usually di soon after birith, or only linger a few days.
frequently be observed at birth in lambs, as in other of the domestic animals, that are in a perfectly thriving and healthy condition. These enlargements frequently disappear spontaneously in the course of a few days or weeks, or they may increase in size, and the little animalgradu-
ally grows weak, and eventually dies.
"Goitre" in sheep is generally confined to
young animals. Except in rare instances, the adult sheep is not often affected with it. And it is probable that in the few cases found in ani-
mals older than lambs, the disease had its incepmals at the time of birth.
Instances of the disease having occurred in all
degrees of severity, from the almost harmless cases mentioned, or a few in a flock dying of ing destroyed by it, have been frequently re corded. And in some of the severe cases, the en largement of the neck of the lamb may not unfrequently be sLgreat as to extend from the jaw to the breast-bone.
Perhaps there is no disease to which sheép are liable more to be dreaded than this; none more erratic in its attacks; and none in which sucn a
vast amount of speculative theory has been indulged in as to the canses that induce it. It is
the opinion of some that the stock from certain rams are more liable to have "goitre". than that from others; and it has been very common to name high feeding and want of exeroise for the ewes during pregnancy as probable causes ; als tamine with minerl substances are be lieved to be prolific causes of the disease. In the human family, and also in animals, water in limestone districts has been claimed to produce it. But it may be doubted if there is any very close analogy between goitre in lambs and goitr in the human race; the latter being a disease of the adult-although some medical authoritie claim it to be a discase that affects young fe males more than others-but it certainly is no a disease of infants. Whereas goitre in lamb prevails, as before mentioned, at the time of birth, may also be doubted ine very great enarge as occuring in lambs are in all cases simply enlargements of the thyroid glands themselves they may probably be produced by collection of fluid or other matters in the tissues of the neek and parts adjacent to the glands.
The extensive losses of lambs from this disease in parts of the North-western provinces are reported to have occurred almost exclusivel what are called the alkali lands, therefore it uced by tho the pro ith some ture thares to tances. In cases of thi or, that is peculiar to a particolar locality very effort should be made, and no pains should e spared, in eliciting the true canse of the tro been some one common cause-in the water, die or general management of the ewes-that a care that the disease would be more apt to prevail in low, damp, malarious situations, as it is a self of exercise are best and most healthful for sheep,
 disease. A sufficient amount of exercise during pregnancy is of special importance. Sheep, lik
ther animals, spontaneously diminish thei amount of exercise as they advance in preg nancy; therefore there can be little doubt that they require less of it then than at other times confinoment during the winter months, after the summer's run; the sudden change in the habits. of n active, roving af gestation, also accommpanied by a complete change of diet, cannot be conducive to that state of health and vigor in which In investigating the cause of the trouble, all thes circumstances should be kept in view.
Dear Sir,--I want to tell you how much I like he Farmer's advocate. As the copy come
in, it is like an old, trusty friend, coming with Lood news. Your heading, "Persevere and succeed," has helped me through many a trying
time ; and no one knows this better than I do
. for it seens like a few months since I was at service. Tell your son (I forget his name-he took
inner with us in the old log house) that would not know the plae now with all its new buildings, and Clydesdale horses. I hope and pray you may be long spared to conduct and eur the Each copy is worth more than a dollar to me. I believe, between my late father an nyself, we have taken your paper since ent begin success in life has been due to its valuable teachings. Wishing you as much success, and more,
in your western edition as you have had in your in your western edition as you have had in your

TShe cirarm.

## Manures-Care in Winter, Etc.

 It is doubtful if Canadian farmers suffer as nuch loss through any channel as from the manure pile. An able writer, whose ne we "English economy in manure would, if practiced, make American farmers rich." While there is ittle doubt that elaborate manure sheds are good investments for those who make large quantities of manure, it is not easy to invest what we have not got, but there are very few arms, where a great saving may not be effected weather or in start the manure pile with horse weather setsiking a compact heap which will hortly begin to ferment or heat. Upon this wheel the horse and cattle manure, mixing as much as convenient, taking care to keep the sides perpendicular as possible. Should the heap become too high for convenience dig out a few barrow loads of fermented manure from the centre and use to start a second heap, build$\operatorname{lng}$ it close beside or at the end of the first. Care should be taken' in every instance to have the heap as high as possible in proportion to the width and length, thus presenting the least uestion may be asked why ferment manure? We cook our food that it may be more easily digested and assimulated by the organs of the tomach; we ferment our manure that it may be more soluble and more easily made use of by the roots of the plants. We know of one instance where manure was treated in this manner, and three waggon loads applied to one-fourth of an acre of potatoes, which yielded seven dollars and fifty cents worth more than the same area beside it without manure, the treatment otherwise being the same. Some rectables in hauling all manures direct hen this course is winter and applying ther spread abont preferable to leaving a ry rains and evaporated by the sun, but not to treating as above recommended and app! ying to corn or potato ground in the spring. In fact, under no considerations should manure be left in the barnyard through snmmer exposed to sun and rain, and those who must keep it over must either have manure sheds or lose from 48 to 60 per cent. of its artificial fertilizing until he has taken steps to secure the very best results possible from what he makes in his barnyar. iftilizers are ceptional instances are to learn of a single profitable, a which they have been continuously nsed when barnyard manure was available. Hanure from animals fed on grain is much more valuable than that from those fed chiefly on straw. Many foods have a manurial value equal to firty per cent. of their cost ; this is the casewith cottenseed meal and bran. The manure from a ton of the former is worth as much as that from four tons of corn meal or from two tons of bran ; manure from peas is twice as valuable as from corn, that from clover hay is
worth half as much again as from ordinary hay. All these things should be taken into considera-
tion by feders in purchasing or selling feeding tion by feeders in purchasing or selling feeding
naterial ; as for instance, if peas and corn are of equal feeding value, the peas are worth 18 cents
more per hundred for t feir manurial than corn.

Some Things Which Hinder Greater
Suceess in Canadian Husbandry
Success in Canadian Husbandry
Continued from October Number:) inferior stock
is another hindrance to success, which is clearly perceptible to anyone who carefully looks into the matter. Stock always has had a place on our Canadian farms, but of late ycars 1 its im portance has greatly increased, so that the most reeding pre-bred animals to supply the ever incressing demand, have not only profited themselves but also have added untold wealth to our farming community. Yet many are prejudiced against or indifferent to the use of pure-bred males to improve their flocks and herds, and for them to entertain the thought of investing in good females is out of question ; hence nativ scrub stock is the only kind to be seen in many ocalities, and an unsurmountable hindrance s, until by some method the owners are taug o When we consider that, in Ontario alone we lately had, according to bureau statistica 569,645 horses, $2,018,173$ cattle, and $1,610,94$ heep, we can realize what a vast field to progres the live stock interest is. Were the value of each horse increased $\$ 5$, cattle $\$ 2.50$, and shee 50 cents, it would add to our pockets the large sum of $\$ 8,699,132$. With proper selection and good care I am confident several fold is within reach. Keeping stack not adapted to the ond in view is not a very main object in wow thaged with given condihave and circumstances, will net the most. If beef is the object, the Jerseys will not answer the purpose, nor will any of the beefing breeds suit the milkman. The light-bodied horse, while good in itself, is a failure when used in tilling a heavy clay farm, and just as useless is the heavy Clyde to him who has to drive at a rapid pace. But are not similar incongruities to be seen on many farms? We see scrub animals stalled to falt we we fat we Jerseys to manuars, whose wives and daughters make butter for home and market at an actual cost of 20 cents per pound, all things considered, which when sold will bring but 15 cents, the chief cause being that the cows are not butterproducers. Light teams are seen taxed beyond their strength, the consequence is the work is ill done, and the animals are in danger of being disabled. On the roads we meet persons urging horses to ther speedy gait.

$$
\begin{aligned}
& \text { as it máy seem, inv } \\
& \text { PURE-BRED }
\end{aligned}
$$

is not an unknown hindrance to some Canadian farmers' progress, buying at fancy speculative prices, pampering animals to their ruin, or neglecting them to their injury, are by no means uncommon phases of mismanagement, and the breeder who has altogether missed mak ing such mistakes is a rare one. From the ex trines of pampering and neglect it is utteriy lay of capital wisely expended in improved stock will surely, sooner or later, bring to the skillful, careful, patient breeder
Many failures in the endeavor to make it
anprofitable line, but shows that the breede equires special fitness to buy right, mate pro taken in hand.
Puro. braf s

Pure hred.
Pure-bred stock is, it may be said, more their kind, the males of which will be used for improving others, and it is only the happy medium in feeding that will successfully prepare them for the transmitting of their good qualities Want of fit and convenient shelter for stock impedes progress. Without warm, com tha stabling hat and produce flesh tt. "Time being money", and money a means of progress, close attention should be given to convenience in feeding as well as to comfort when providing accommodation so as to lessen labor, and thereby contribute its fraction to greater success.
exposure of mplaments, carragees and MACHINERY
to the weather, when not in use, is a leak through which much is lost, and assuredi a step downward and a step backward on the road from success to ruin. How often we see valuable mowing machines, seeders, plows, harrows, and even binders left out where last used or stowed away by the fence, the year
round. I do believe that exposure and the round. I do believe that exposure and the neglect of needed repairs causes the average implement to become useless iness thars are the years it sh the farmer's annual lose is enormons, A small part of the loss would be sufficient to provide the necessary shelter.
Many of the farm encumbrances which largely help to make the owners' lives a kind of slavery, if traced to their origin, would be found to result, at least in part, from the half-worn and much-abused tools, implements and machinery which disfigure the lanes and yards of such farm The decrease in the
average yibld and price of wheat is another presell arrier in the upward path disguise" to Ontario. While wheat was a sure and profitable crop to grow, many were tempted to crop their land year after year with that cereal until their soil became exhausted. A similar course is being followed in barley culture in many counties, and like failure will surely come. Those circumstances are compelling a change in operations. As more grass is grown, hore good fock so will the fertility of the soil be maintain. ed and restored, and a further advance be made towards what may be termed high farming.
noxious weeds,
as Canadian thistle, wild oats, mustard, and many others are too well known hindrances, and one or more of these pests may make their one or more of these pests may make then sign of careless management when they are allowed to take such possession of the land, as to rob the sown crop of its plant food. Those nuisances may finally prove blessings, as they jection. The operations required to make a riddance of them will at the same time so prepare the soil for future cropping that the extra labor may be fully recompensed.

## Water as a Fertilizer.

To grow a maximum crcp have well drained and, as stagnant water and over-much water is njurious to growth; and land undrained, especially f clayey, is apt to dry ex oeedingly dâring the dry water.
Commencing with suitable soil, we would nanure or fertilize broadeast, and plow shallow. The land should then be thoroughly harrowothing but also to consolidate the surface soil and bring the particles of earth into eloser contact, fill up the cracks and prepare for the next implement, which is the roller. This should be used thoronghly in order by its pressure to restore the capillary contacts with the undisturbed seil below, so as to secure the aocess of capillary water. These operations to be preformed while the land not to puddle or cake.
Now plant your seed (under average conditions, tances and quantities as enjoined by local experience ; but in covering the seed be sure to either step on or otherwise compress the soil about the seed in order to secure close contact of the seed and soil. This not only aids to secure moisture or germination, but obliterates cavities in which mould can grow to the destruction of the seed, and in early planed sood wis string the season of planting there is always anfficient moisture, so the field can now be safely left, but in a condition, it is true, for grèat evaporative loss of water. As soon, however, as the plant.attains the proper size, and the earlier the better, put in the cultivator and thoroughly stir the soil so as to broak the capillary connections with the surface and prevent by the mulch of loose soil the access of water to the surface to be evaporated, for future for future the succeeding cultivations can properly follow no definite intervals. The object is to conserve moistare, and hence, whenever through rain or otherwise the surface hardens and establishes surface connection to the capillary pores put in the cultivator, and re-estabish the mulch. Get rid of the idoa that the object of thus prevent their robbing the soil of the nitrogen, The object in destroying the weeds is to prevent their robbing the soil of water; for this fertilizer
robbery that has been so magnified by some robery
lecturers, can readily be offsee ly a fow handfuls
of extra fertilizer, but to relace the water the of extra fertilizer, but to replace the water the
loss would require barrels and team labor. After loss would require barrels and team labor. Attor
the ears of corn have commenced to glaze, even have passed out of the milk, the requirements
are dryness for the proper manuring of the crop are dryness for the proper manuring of the crop,
hence the last cultivation can theoetically cease hence the last cut pation can theoeticalys stop, on account of the obstruction caused by the large
growth of the plant. At and after this period growth of the plant. At and after this perioo
weeds may be of no advantage, but help dry the weeds may be ot the last of August in this climate
soil, and after
with early planted corn, it is probable that the with early planted corn, it is probable that the
corn plant matures its grain from the material corn plant matures its grain
already stored within the tissues.
I may add, that in raising the maximum crop
which I have figured on, I woold by preference which I have figured on, I wonld by preference
use at least some artificial fertilizer for the reasons use at east some artificial fertilizer for the reasonl
offered by which we may believe that chemicals have an influence upon the economizing of the
water contents of the soil water contents of kno sitrogen, phosporic acid and potash are the paramount fertilizers for
and
farmer, but the greatest of these is BRAINS.

## Wilkin's Potato Digger

 The accompanying illustration represents potato digger recently inventod by Als. Als Wilkin, of Birr, P. O., near tan grounds, and been tested on our experimentaig os descrip-did excellent work. The following is dion by the inventor, Mr. Wilkin :-" The peculiar shaped digging blade $A$ passes under the drill or hill, and the mould-board B and standard H casts off the outsides. The centre, which contains the polating prongs $\mathbf{C}$, two and a.half eight-inch
inches apart - spreading a little at the points, giving an eight-inch shake swhile the digger advances four on the prongs ; thus the earth receives several quick shakes, which makes the potatoes appear. From this it drops five inches, and is caught by the long ses apart, spreading at ing prongs D , two inches apart, spreading at the points, whose digger moving four inches in
fifteen inches. The dit fifteen inches.
same time, the soil is here shaken through the prongs. and the potatoes left clean and all in fine order for picking up. The digger works most complete in hard, dry ground, but will not

## The Permanent Central Farmers' Institute.

 At a meeting of the Execotive Committee of the Permanent Central Farmers' Institute, held at the Walker House, Toronto, the following subjects were placed upon the order pa-


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Niag and the prongs will not ruise or skin the potatoes. The pitman F operates the any circumstances come in
contact with the soil or contact with the soil or weeds, being fourteen inches above shovel A. It likewise ll tops or rubbish that collects on standard H , making it impossible to choke in the foulest ground. The ver C regulates the depth, which can be done without
stopping. The prongs can stopping. The prongs can
be stopped or started at will. The handles being placed at The handles being placed at does not walk on the potatoes."
The digger is built at London, Ontario, Can ada, of all steel and iron, strongly made and competent mechanics to dig four hundred acres perfectly clean without any of the mechanism perfectly clean with in order to introduce the
wearing out, and in machine, it will bit
the original cost.
When a boy on a farm, I remember it was standing rule to rake down a little hay into the horses rack everyl was the horses would keep
stable. The result their grinders going nearly all the time, and be come pot-bellied, unsightly animals. Horses fe in this way become mere ma hhines, or haycutters; the nutrition of the is wasted. By such stuffing large portion of it is wasted. BV such staning
every organ of the body is interfered with, and every organ on the road or to work on the farma
when put on
horse so fed cannot move with any comfort until relieved or the superab is generally due to over driving when the stomach is full of hay. Bulk
in feeding is neessary, but when the food in feeding is necessary, but when the food nearly all buck ane. Hay should be fed with as
it is time to change.
much care as grain is fed. Different horses re muire different quantities, and in feeding a new


Market fertarnion
nitr
Niagara Falls
So A committee was order and procedure
the annual meeting. the annual meeting.


The Secretary was instructed to invite the
following associations to send one delegate each to the next annual meeting of the Centra Farmers' Institute, viz: :-The Agricultural an Arts Assqeacsociation, the Ontario Ayrshire Breeders' Association, the Clydesdale and Shire Horse Association, the Dominion Draught Hors Association, the Sheep Breeders' Association, the Eastern and Western Dairymen's Associatario the Ontario Creameries Assooct the Ontario Bee Fruit Growers' Asssociation, the Ontario Agricultural College, Guelph, the Ex primental Farm, Ottawa, and that the name such delegate be forwarded to the Secretary n later than January 1st, 1890.
Institutes are requested to forward to the Se
 cussion at the annual meeting. We would urge upon the various bocies to
whom the invitation is extended, to appoint delegates to the meeting of the Central Institute,
as it affords a means of bringing influence to bear on our law-makers to which Canadian farmers are willing to be guided by their constituents as o necessary measures, and there is no doubt the
Central Institute will be of great benefit in this Central In
direction.

The Central Exhibition, ottawa.
The live stock exhibit this year proved a big success, the quantity and quality of the stock being larger and better than last year, and
some say better than at the last Provincial Ex. hibition. There was competition among the exhibitors for the prizes in all branches, and con-. siderable rivalry existed.
Following are the total number of entries in each class :Horses 298, cattle 314, sheep 160, pigs 38,
fowls 146 chickens 172, pigeons 54, dogs 151, fowls 146, ohickens 172 , pigeons 54 , dogs 151 ,
field roots $H 0$, grains 69 , apples 198, pears 41 , plums 16, grapes 65, garden vegetables 254, cheese 80 , bees, honey, etc., 29, building material 9, fire escapes, etc., 9, ©rs 1, furniture 43,
ladies' work (fancy) 295, ladies' work (useful) 174, ladies' work (fancy) 295, ladies' work (useful) 174,
botany and geology 4, archæology etc., 1, botany and geology 4, archæolog (puic.,
mineralogy 3 , fine arts 97 , fine arts (pupils) 63 , mineralogy 3, fine arts 97, fine arts (pupiss
architectural drawing 17 , industrial art, 23, metals and ores 16-total 3,304.
President Magee said the show was very much ent than that of last year; though the fruit owing to the early season, but the stock exceeded the highest anticipations, season.
The horses as a whole reflected great credit to their their number some very fine nimals; the different classes being fairly represented. In the Clydesdales may be more especially mentioned those shown by Thomas Good, of Richmond, who carried away
a number of prizes, also a number of prizes, also
those of J. Clark, Ottawa, who was very successful in the ring.
Mr Robt. Ness, who came off with many laurels, only made a comparatively smal display he took first in every class, he exhibited at Sherbrooke and also gained first honors a.
Chateauguay County, thus illustrating the superiority of his magnificent Clydesdale stock. But few horse breeders can accomplish the taking of frst place at three exhibits during one week-i each case different animals being shown.
The cattle exhibit was larger than it has ever been before, and admirers of the different class-
es could find plenty to see in the sheds to gratify es could find plenty to see in the sheds to gratif
their tastes. There was a large number of ex hibitors, among whom were sơme from Compton and Stanstead, Quebec, and Guelph, Ontario. Montreal was well represented and the County of Russell was extra well represented in the ex hibit of Mr. W. C. Edwards, Rockland. Th Ayrshires were the mose ahown. There were two exhibitors who had each 15 head of Ayrshires out of a total of 70 head. Next in number and rank came the Holsteins, which breed was als well represented. The Jerseys came next, an some very pretty Jersey calves were to be seen There were two herds of Herefords and one each Devons and Gallowal exhibitors in this line, said number and quality the sliow of cattle was
very fine and better than that at the last Provery fine and bett
vincial Exhibition.

November, 1889

The sheep exhibit sher. The sheep exhibit was very
uality very fine. Messrs. Nevill quality very fine. Nessrs. Ne had
and Judah, of Hillhurst, who had Kingston, where they took all the different lines, were among the displaved a fine selection of she ported the exhibit to be larger the
and stated that they were well pl The pig display was good. being the most numerous. came the Chester Whites, which represented, as well as the Yorks he exhibit of poultry was pro cess. It was larger than last
deal, and there were more of the ties.
carriages.

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& \text { construction and finish, from the }
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$$ onstructed cutter to the family f the vehicles on view were of a and the only remark heard was, there are not more of them. Great improvement had taken chinery hall since last exhibition sions of uast year s building were

inadequate for the number of addition as large again was added of machinery having to find repo outside the hall, as was the ca
was almost all safely housed witl was almost all safely housed witw
of a few threshing mills and plows of exhibits were about the same
they looked much better, bein of exhibits were ach better, bein,
they looked much
nicely arranged. $A$ new class of of ground was a Babcock eng chatham fanning m
atham fanning mills, The Chatham fanning mills, a
and exhibited by Mr. Mananon Cam a great deal of attention, the new
ment being looked upon as not utility, but also much admi
of mechanical construction. The Automatic Refrigerator
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mens of their workmanhhip. The William Johnson Compan paint manufacturers, made a mag
of their specialties in the main of their specialties in the main
ing all the stages of the manufac
from the chemicals and raw mate from the chamicals and raw mate
fected article. A prominent featur was the magnetic iron paint, whi
on the roof of the horticallural bu
, The which it may be judged. The
decorator's white lead, celebrated whiteness and great body. Also
and oil for coach and hears pai
pal specialty was pulp colors for wall
and also Johnson's celebrated pu "best in the world" for house
perienced attendants were in ch
hibit, and gave all the neeessary hibit, and gave all the necessary
It has been computed that
brought into the city $\$ 40,000$ bought. The stores, hotels, ste
and 'busses got the bulk.
and and 'busses got the bulk.
According ot Ottawa advices,
round, the exhibition proved According to ottitiwa adices,
round, the exhition proved
though the numbers attending
short of the general expectations

The Orange County Farmer $t$ stimato a frosand bush are lost by early frosts for every
the crop aggregate by "too early

The sheep exhibit was.
The sheep exhibit was very large, an thee
quality very fine. Messrs. Neville, of Nemen
 Kingston, where they took all the prizes in theer different lines, were among the exhibitore and
displayed a fine selection of sheep. Thnes redisplayed a fine selection of sheep. Tha reported the exhibit to be larger than at Kinasse
and stated that they were well pleased The pig display was good. The Berkesinires the pig display was good. Next Berk the most numerous. Next in minabres came the Chester Whites, which were alse well represented, as well as the Yorkshire.
The exhibit of poultry was pronounced seaccess. It was larger than last year by a meat
deal, and there were more of the differem ties. carriages. In the carriage department the exhilbin was
not nearly so large as it was last not nearly so large as it was last DearSome of the carriages were really magnificeme in
construction and finish, from the small constructed cutter to the family carriage. NEOSt of the vehicles on view were of a superior "anke, and the only remark heard was, "It is a pity there are not more of them.'
Great improvement had taken place ine masions of last year's building were found altopether inadequate for the number of exhibits, and addition as large again was added, so that insstean of machinery having to find repose on the prass outside the hall, as was the case last Year, it of a few threshing mills and plows. The mea ber of exhibits were about the same as last yozr, but
they looked much better, being groupeai nicely arranged. A new class of exhibit
ground was a Babeock engine, ready to the ground was a Babocock

The Chatham fanning mills, as manuraceser
and exhibited by Mr. Manson Cam phell, a tater a great deal of attertion, the new bagging an terch
ment being looked upon as not only utility, but also much admired for the in of mechanical construction.
The Automatic Refrigerator Company ene gereal
the notice of passers-by with some splendial the notice of passers-by with
mens of their workmanship.

The William Johnson Company, paint manufacturers, made a magnificent, alisplay
of their specialties in the main building, of their speciallies in the main buiring
ing all the stages of the manufacturing
from the chemicals and raw materials to from the chamicals and raw materials to tha peri-
fected article. A prominent feature in this was the magnetic iron paint, which is to 10 weem
on the roof of the horticultural building,



 It has been computed that the exh ingition
brought into the city $\$$ \&0, ooo in one
another. The stores, hotels, steamboats, 1Tacke another. The stores, hotels, steamboats,
and busses got the bulk.
According to Ottawa advices, taking tha in acs round, the exhibition proved a success attending it fell somane
though the numbers aten
short of the general expectations of the
 estimate that a housand bushels of buke
are lost by early frost for every one take firesme
the crop aggregate by "too early plantime,

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The follow Thice frollon a letter has been received at this gan. We h mot as yet heard of any transacthe warnin of the attention of Feaders to the methods adopted hard earned WHLEHANE W, EDIly, Mich., Sept. 20, 1889 .






 Fe

 to kill mind, wacessful. They have threatened
 $\frac{1}{3}$
Ve prefer withhold the names, though the Writer is evin $1=1$ fearless. County Adr Who sent us tha above letter:-
, -, a resi aent of Uni term of coz For alleged complicity in the Bo his pumishinn rixed at two years in the peniten tiary and win $\$ 25$, immediately made an application new hearing of the case. A stay was granted lail last Saturday. When the case came up the and passed tence accordingly, and the defend special considence of the Advertiser :Rpecial chester, Y., Jan. 26th. -The publicity givell to the scitames of the Bohemian oat men has startled the farmers of Monroe Co. They are thoroughin arin seem to fall victims, but this tow spich recule operation seemed to be so tempt ing, was apretly so free from risk, the agents Were so bus lin like, that a great number would peared in pachinile prints. The experience of Oak lend count Fermers will be a lesson to th
ceded here, where the oat speculation is a comparakeenest ever hatched out of a shrewd witeted sharper. The kind of men best adapted to pushing a scheme of the kind to complete success are at the head of the concern, and they would haze gathered in a rich harvest of dollars witheont
question had not those who had been marked for Victims been put on their guard. Let a plansibible man present the beauties of Bohemian nat speculation and he can make out a good case. When the company has been regularly incorporated The can readily lead his hearer to think that the strictly legal in its methods.
Issue of Feby. 17, 1889 :-A man Titsworth is deserving a medal for having brought the "shark" to the front to answer for his contemptible trickery. He has defied the farnaers of this vicinity and made frequent visits
here, but the majority of the bull-dozed farmers met him with a bland smile as though they were glad to see him, but he got caught in his own trap, and we predict for him a prolonged visit with friends (?) at Jackson.
Issue of Oct. 27, 1889 :-The Bohemian Dats case is again before the public of Genesee couraty,
now for the first time being prosecuted by the county, though there has been several civil ceses brought heretofore. Prosecuting Attorney Lee has ordered the arrest of -, of Ypsilaneti, and , of Holly, on a charge of obtainaing signatures to orders and notes under false pre-
tenses. The details of the case are doubteless well known to the readers, Abram Titawoless well known to the readers. Abram Titswaztin, September 1885, by
ing certain things, secured Titsworth's ordeer for ing certain things, secured Titsworth's order For ten bushels of Bohemian oats. Subsequeratly erated - statements, and thereby seckared Hitsworth's note. This was sold to a bank at When it became apparent that the allegetions made to secure the order and notes were false Mr. Titsworth made complaint, and the arcest Tustice Walker Thursday afternoon and continued for two hours, when the defendants were bound over for trial in the circuit court with bail fixed at $\$ 300$ each. This was furnished on be-
half of by half of from Holly named and for -_ of Ypsilanti, represented the defendants.-[Fint $\rightarrow$
Issue Jan. 12, 1888. -_, formerly a suceessful Bohemian oat operator at Ypsilanti, recemely
found it convenient for him to migrate to the found it convenient for him to migrate to the Queen's Dominions. The climate of Michiggan of the year, and so he now is tarrying at Winclsor. He talked quite freely to a reporter the other day, and said :
\&I tell you that oat business was a good sciuare deal at first, and would have been yet, if every
Tom, Dick and Harry hadn't crowded into Tom, Dick and Harry hadnt crowded into it as money and fixed it so that we confân'tilive ap to our promises. We had a company composed of first-class men-the leading citizens-and draring the first year or two, farmers made big money:" - How ; were the oats good
good, that is not so good as common ones. Fhey good, that is not so good as common ones- They
them. The farmers made money because we
were able to and did buy the oats they raised at the agreed price.
"asced ang collapsed," he went on, "I had succeeded, after many experiments, in pro-
ducing a beardless barley. Finest looking you
ever saw ever saw, only it wouldn't malt. I'd have made a good thing out of that, if the stockholders to giving away their stock to their hired men or any person who would take it. That destroy
the public confidence and busted the deal." the pablic confidence and busted the deal. I couldn't go back without endangering other people as well as myself, and I'm well enough years if I didn'c do anything."

## About Hedges.

what the editor of the michigan says on the subject.
During the few weeks the representatives of the Nichigan Hedge Co. were skirmishing around Isabella county making herculean, but futile, efforts to secure hedge victims among the farmers, they stated repeatedly that the reason the Michigan Farmer denounced their hedges was because they would not adverise in in Isabella county, here is no the Farmer and the honorable manner in which it is conducted, who gave any credence to this crazy charge of the hedge men. But, in order to more clearly un mask the hedge fellows and show them up in their true colors, the Tribune asked the Michigan Farmer for information on the subject. Here is will find it worth reading
and mithigan farmer
GIBBONS BROS. Proprietors.
$40 \& 42$ Larned Street. west.
DETROrT, Mich., August $18,1889$.
r. A. N. Brown, Mount Pleasant, Mich.

Dear Sir:-On my return to the office, after severe ilness, I found $\mathrm{I}_{\mathrm{c}} \mathrm{Co}_{0}$, their herg, which you wished to answer.
First, as to the company, I do not know per onally a member of it, nor does any one in the with a representative
As to their hedges $\rightarrow$ In the last six years have seen their hedges set out in Washtenaw, Jackson, Lenawee, Macomb and Shiawasse Jackson, Lenawee, Nacomb with has proved a success-in many instances they have bee abandoned by the owners of the land. I sa some miles of these hedges in Shiawassee count a month ago. Some had been plowed up, other looked as though the plant had died out," a few had lines of little shrubs about two feet high, and totally valueless as a protection to the land Some had paid two installments on their contracts and really had nothing to show for it. I was informed by a prominent farmer (who had alsu signed a contract) that some had paid a certain amount to the company to be let of fro in that way
You ask if we ever requested the company to phatically not and any statement to that effect by any one, is an absolute falsehood.
About a year and a-half ago a gentleman called Michican Hedge Co.. $J$ I forget his name, but he was and official- secretary or president, I think. He objocted to some strictures in
the hedge set out by them. the hedge set out by them. He said the
companypwas composed of reputable and respon-
sible men, and that we ought to give them a fair show. He was assured that so far as the
company was concerned we had no personal feeling against them, and that our strictures referred entirely to their hedgges, which I had every reason to believe would prove valueless in
Michigan. He then said the company were Michigan. He then said the company were
large advertisers, and would be pleased to use the Farmer if arrangements agreeable to us could be made. I told him that while the matter was
being discussed in the paper I preferred not to being discussed in the paper I preferred not tho
do any advertising for them. The man who called was apparently a gentleman, and I don't
think he would deny this statement. I have think he would deny this statement. I have
never seen one of them since, never had a line of never sespendence with the company on any subject, and any representations different from what I have stated above are simply downright lies. In two counties in thes enforcement of these conorganizing
tracts-Clinton and Berrien.
While I disclaim all personal hostility to the company, or its individual members, I am thor oughly convinced that the hodgitute for a fence. are a costly and worthless substics,
Very truly yours, Robrer
Editorbons, Editor Michigan Farmer. From the above it would seem that the Michi company for the same reason that the Tribune declined to serve them-because their so-called hedges are a worthless expense to farmers. The
above letter clearly proves that the Michigan above letter clearly proves that the Michigan
Hedge Co.'s representatives, who swooped dow on Isabella county, are as devoid of principle and truth as their hedge is of pract
farmers.-[Northwestern Tribune.

## New and Useful Agricultural Im

 plementsRapid strides are being made in perfecting gricultural machinery, and new implements of great value are being brought forward. The im proved Kemp Manure Spreader is one of th most valuable acquisitions we have seen for some
time. This machine saves all the manual labor of spreading, and increases the benefit derived from the manure by thoroughly pulverizing it. Th inventor, Mr. Kemp, brought this machine out in Canada in 1878, but the builders did not ake 10 as he had anticipated. He has her it is now hanufactured at Syracuse, $\mathrm{N}, \mathrm{Y}, \mathrm{Mr}$. K . per onally supervising the work. $H_{e}$ is anxious to ave it manufactured in Canada The machin an be adjusted to spread any amount per acre it does its work well.
The Hoy Potato Digger, manufactured by the nternational Seed Co., Rochester, N. Y., another machine of seeming merit, and the manfacturers inform us that it has been in use for four years with the best results. We should say from its appearance it would do good work. Another new invention is an automatic machin tory. tory. It is claimed that where cream is allowed to rise on the mik, a large amount of the butter no cream is permitted to rise, as a perforated basin is raised from the bottom to the top of the milk can, and allowed to drop back once every
three ininutes. This basin is also constructed in such a manner as to lift som of the milk above that in the can, and allow it to run out before it drops back, and in dropping back it conveys a
certain amount of air to the bottom, where it is liberated and rises rapidly. This of course thoroughly aerates the milk as well as agitates it. Mr. George
It is only manufacturers of or dealers in com value of farm manure

Poultry

## Christy's Feeder

The above is one of the most ingenious devices we have seen in poultry appliances. Fig. 1 represents the feeder; Fig. 2 represents it in opera-
tion. Its chief value is to keep fowls employed in winter. A cord counects a trap down in the bottom of the feeder with a lath near the floor, which is just high enough to entice " biddy" to jump on it. This opens a trap door, and allows


from a teaspoon to a large tablespoonful of grain regulated at pleasure) to drop to the floor, which
hould be covered with straw. The birds will seratch until the grain is all picked up. As soon as they are again idle, they will naturally jump on the lath, and down comes a fresh supply.
The feeder is the invention of the Rev. D. M. he feeder is the inventi.
Christy, of Ithaca, Mich.

## Cross-Bred Fowls.

For ordinary purposes of the farm, cross-bred owls are superior to pure-bred ones. By judic ocurg, greater strength and hardiness ing tendencies.-M Maritime Agriculturist.
Our brother down by the sea is mistaken in this matter. Whatever may be the object of the poultry man, he can find a pure breed adapted to his purpose, and having been bred for generation on that line, will be more prepotent in transmit ting those qualities than the cross-bred ones. $A$ air result may be obtained by the first cross, but in no instance have we known the progeny to bly filled the bill. Certainly we thould oxpect it to fled the Corn the But even in this case, if the progeny are bred gain, the result will be a nondescript flock of chicks, some perhaps of fair merit, but others quite the reverse. Whatever the object may be, eggs, broilers, or adult fowls for market, a pure breed should be selected, the one that most nearly fills the bill. Continue to breed along the desired lines, and not drop them and take up a new variety, because some one says another breed is better. If eggs are the object, use Leghorns or Hamburgs. If broilers are the chief consideration, Plymouth Rocks will give goot results, and
if both eggs and broilers are desired by all means use the Wyandottes, in fact, they are very little behind the foregoing varieties as special purpose fowls for the purposes named. (The
White and Silver Laced varieties we would recommend.) If large, heavy fowls for winter marketing are required, the Light or Dark Brahmas, (Light preferred) will give good results, as will also the various kinds of Cochins or the Colored Dorkings. We are not by any means prepared
to assume that there are no others to fill the bill, to assume, that there are no others to the to say no cross-bred fowl yet hear for
but we dill it nearly as well as the breeds named.
will

## Ground Bones for Poultry.

The digestive organs of poultry "are wonderful, explain them to ss, and after a time again ex xplain them to us, and after a time again expishow they were wrong, and now see the and it is doubtful, if the use of gravel, on de., by fows, is thoroughly under plausible theries which others with as muen eason claim are greatly at fault. Many people ake it for granted that the hard substances found in the gizzard of fowls, are used by them to grind their food; others that they are to prevent a clogging or balling of the food thers again claim that it is to furnish th necessary lime to the system. We have no heory, we simply don t know, and have no But the fact remains, as all know, that fowls require some hard matter; such as gravel, ground elief, the. Our own experience leads us to the only act on the gizzard or stomach mechanically, but if the bones are fresh when ground, are very
Every poultryman should have some device for grinding, breaking or cutting heres to them, make them more valuable tha the bone meal of commerce. A large hammer and a large block on end answers the purpose, Cutter is one of the very best for the purpose, a it grinds, or rather cuts up the bones, whethe fresh and covered with sinews and gristle, or ployed, ground bones should be fed regularly in pinter to fowls, especially to laying hens. of
conrse course they are beneficial in summer, but when
ample range is provided, the birds usually find some substitute, although probably not as beneficial as the bones. They are especially valuable to growing chicks, as they furnish bone-forming
material, or at least, chicks fed with it seldom have weak legs or joints.

G(Sthe なんpiarg.
Preliminary-November Work in the Apiary.
py allen pringle, selby, ont
The average farmer of to-day can have but little excuse for ignorance of the science or art of his pursuit in all its departocks, culture, or bee culture. What with agricultural journals, farmers' institutes, industrial exhibitions, etc., the farmer of these times must wilfully shut his eyes, or learn. The special efforts being made by the Farmer's advocate for his instruction and improvement, are certainly deservThe very liberal prizes offered from time to time in the various departments, and awarded to the meritorious, cannot fail to accomplish much good in exciting vigorous competition, and stimulat ing the best productive effort. Such enterprise deserves the practical recognition of Canadian farmers, whose interests are thereby so well served. The editorial invitation extended to them in the October issue, to contribute to its ol etc., ought the "horny-handed son of toil" is averse to using that stiff hand to wield a pen. many excellent practical facts and ideas to the many excellent practical facts and readers of the agricultural journals. That the husbandman is slow with the pen and loth to write, is not much hi hands are stiff and unwieldy with hard work, and often plastered up with
"adhesive" to protect the cuts and bruises.
would make a suggestion here to those intelligent and observant workers, who have something use ul to say and hate to say it with the pen, who
vaguely feel it a duty to do so, but obey not. M suggestion is this: Get one of the boys, ictate. They are probably going to school, and his will be a good exercise for them; a four-fol educational process, and will improve the boy him elf-will improve him, especially in composiion, in penmauship, and in spelling; secondly, houghts, and in the expression of them ; third y, it will, in all probability, be beneficial to th eaders of the paper; and lastly, it will be publishers, and will be one way of showing you appreciation of their efforts. The trouble with myself is, not aversion to handling the quill, but
pressure of work and consequent want of time. Iam especially pleased to note also in the editorial remarks anent "The Coming Year," that ue prominence is to be given in fature to bee means least, of the profitable and productive industries of the complete farm, for 1 hold that o farm is quite complete without a few "stands,
"stocks," "s skeps," or, if you please, colonies of bees. I have always contended that apiculture is a legitimate part of agriculture, and have onsistently carried out contention or nearly quarter In fact, the bees with me have become the most interestung and important part of the " live stock," and bee curt of the not mean to say tha very farmer shonld become a specialist in apiculture, or even keep a few skeps, for som are utterly unadapted wonld never make either one colony or a hundred pay. And this, fter all, is the main point with most peopleBut, in addition to the pecuniary consider ation, bee culture has most decided advantages over most other kinds of agricultural work, inas much as it is instructively aesthetic and moral in ing, as well as I have yet to see or hear of a
its influences enthusiastic apiarist who is $\%$ criminal, or mor ally bad. In response to the invitation, I pro-
pose to say something about bee culture, in its practical and profitable aspects, from time to time, in the Farmer's advocate.
november work.
In Canada, November work amongst the bee winter quarters. By this time all colonies ar supposed to have been supplied with plenty o winter stores, and to have been fixed up in dry, that remains to be done this month is to carry such into winter quarters as are to be wintere inside, and to pack up for winter those to b carried in, no definite time can be safely given. It is, however, safe to say that bees should be put into winter quarters some time this month
unless it should prove exceptionally fine and warm. Years ago I never used to put my bees warm. Years anters till December, but experi ence has tanght me that it is better to put then in before there is any cossful wintering are easily stated, but not so easily compassed. Food and temperature are or pped honey in the hive in a temperature of $45^{\circ}$ to $50^{\circ} \mathrm{Fr}$. outside the hive, there is little risk or danger in wintering. Next hive and repository should be propefly ventilated. If woolen quilts (which I consider prefer able) are used over the frames there need be no larther special prooint of repository ventilation may be reculated by its size, and the number of colonies it contains. The smaller the repository, and the greater the number of colonies, the more
ventilation is required, in securing which strong ventilation is requireught to be avoided. The absence of light in the repository is desirable, though not indispensable, till spring

## INDUSTRIAT EXHIBITTON, . 1889. Horses.













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 The following is a list of some of our latest pre-


Barrel Napkin Ring Newpaid
 Cream Juers, Pepper and handsome
dozen tur.....
ozen dozen matividual Putter plates















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## ghamrilig aizucle.

The Golden RemieSpak a kind WMris, MORONTO.
Kird Wentiou can
Kind words cost but itie, Thisi warths cost but little,
Hister blan hearts nre britie;

So say sages olden!
Let us lend a helping hand






## " NOT AFRAID TO WORK."

While Tom Howe's courtship was going on in the cool troty where the wiblary was wariare on the
andrants and raspberries arious warfar
cur
 ing houses which weerenearest- sextra care had
been taken with the bushes. the sean was favor











 be auccompishted that the dayk-always seemed teo




 lighted sirl "

















































then, if you fail to accompliah it, notaidy with
know.
Teach the children to bo kisd to all dent hase
mals, and the humane prisifle will gito the mals, and the
through life.
Many a women would bare lived hogen if elate
had hoed the garden more sod taico paicel medicine less
 Don't mistake weight for marneth ir chothiay



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## Xfinnie ZAlag's Dep't

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True Eappiness.
The good wife buster The grod wife bustled about the house,
Her face still
As britht with pleasant smile,


$\qquad$
A Musical Memory.
It is easily understood that a retentive musical memory is of great value to the musician, be he composer or merely a performer. Talented young musicians not frequently possess an astonishing memory. Sonatas, symphonies, and even fagues, which they practice, they can soon play by heart. As they advance in years the power of memory gewerally becomes weaker. Blind musicians appeay to preserve it undiminished for a longer period than others. The blind pianist, Dulon, is said to have known one hundred and twenty flute concertos by heart, which he had numbered, and any of which he could play instantly, on its number boing mentioned to him. True, there is musically little gained by burdening the-memory with compositions which chiefly consist of coinplications of passages calculated to display the The whe of the permer,
to recall to his ma mancian ought to be able such as Gluck's "Iphigeni in such as Gluck's "Iphigeni in Tauris," Mozart's
" Don Giovanni," Beethicven's Sym Handle's "Messiah," Bach's " Passion," etc., There is not a few among the great com ensers who studied the masterly works of their prede cessors so effectually that they knew by heart a considerable number of them from beginning to
end, with the instrumentations of every bar.

A correspondent sends us the following:"Last summer, having several cans with imperfect covers, I used the cotton, differently, however, from the suggestion in the Advocate, as I did not tie it over the top. I simply tork a piéce large enough to come within the cover and wressed ithe cover, which I screwed on as usual We moved in the tall iver 300 miles, and the cans thus secured with kotton came in perfect safety,
and the fruit rentained in good coindition and the fruit repained in good coidition till
eaten, while other cans not so coverel fermented esten, while other cans not so covered fermented
on the jourpiey."

## Large Trees.

The Eucalyptus, or Gum tree, near the foot of
Mount Wellington, in Tasmanis, is stated Mount Wellington, in Tasmania, is stated to be 250 feet high ; its diameter is fully thirty feet. This is reputed to be the largest tree in the world as well as the oldest.
William the Conqueror's oak, in Windsor Park, England, measures at four feet from the ground;
thirty-ight feet in girth, and is probably from 1,000 to 1,200 years old.

## A Silver Dollar.

Alice stood under the great oak tree in the front garden wandering what she would do with the bright new silver dollar which grandpa hai just given her. It was hard to decide what she nost wanted to buy-there were so many thing she thought it might be nice to have. She con cluded, however, after some deliberation, that a beautiful flaxen-haired doll she had for a long time coveted would be the best pgrchase to nake.
Minnie Peters, the lame girl, who lived in the mean little cottage opposite Alice's pretty home, came out of the house and seated
sunshine on the narrow doorsteps.
Alice had frequently talked with Minnie, for lice kreq any number of live minie, for of which she had invented, too, for the cripple had no interesting books of her own, and her pale cheek flushed with pleasure whenever Alice borrowed a volume for her from mamma's library. Mrs. Peters could net afford a single lux ary for her invalid daughter. There were five fatherless children in all, and it was as much as the patient, hard-working woman could do to feed and clothe them. I suppose Minnie had never had so much as a quarter to spend in her life. Alice ran over to her young friend, whom she found looking very disconsolate.
"O Alice," said Minnie, "you.don't know ho dreadful it is to be no use in the werld! My mother has so much to trouble her, and I am the heaviest part of her burden, I think. If I only hau the material, I could make such pretty em down town the other day and I could do them just as well if I had an opportunity to try."
Alice thought a moment.
"How much money would it take, Minnie, to get what you need $?^{\prime \prime}$
"Oh, I don't know," answered the lame girl, "more than we wer of petulance in her voice; There wouldn't be any chance of selling the things if I had them, so it's no use to talk of them. I can t move around much, you see," and a tear twinkled slowly down her thin cheek.
"Never mind, Minnie dear," said kind hearted Alice; "I have a plan for you which I mean to talk over with mamina. I am sure we can help you in some way."
When she went home a little later her mother said :
"Well, pet, have you found a way to spend your new dollar?
 and some lace
Mrs. Sinclair looked at her little girl with sur prise.
"Are your dolls to have a ball, or what $?$ "" "O, mamma !" the child explained, "poor she has no money, you know, and I should like
to give her the satin, becanse she will make a lovely tidy, you see, and if you will buy the first one, then she can have enough to get the material for another, and perhaps save something for herself besides."
Mrs. Sinclair approved of the idea, and although she did not say so was delighted to find she had 30 unselfish a daughter
That evening Alice placed a small package in Tinnie's hands.
"Now you can make the tidy," she said, her blue eyes sparkling with pleasure, "and you are going to make it for mamma's armch
selected all the prettiest shados of silk."
Minnie was overjoyed. Her deft fingers
Minnie was overjoyed. Her deft fingers com
pleted the dainty article in a few days, limped across the street with it to Mrs. Sinclair "What is your price for this, Minnie?" asked that lady.
"Do you think a dollar too much, ma'am ! said the lame girl, modestly
"You silly child!" laughed her patroness, "it isn't half enough. Two and a-half is a res sonable charge for so nice a piece of work
Minnie felt fairly dazed when she saw the small gold coin lying in the palm of her hand, and Alice waltzed all over the room, she was so glad of her friend's success.
The money was invested in fresh material, and as fast as new hisposed were completed Mrs Sinclair made other pretty things, and grally Minird quite little income, and was of great asoistance to quite a little
her mother.
her mother.
"And to th
silver dollar did it all"," said Alice, "that one "That and a little self-sacrifice," mamma answered, and she stroked
head. "Don't call it self.sacrifice, mamma! I never had anything to give me so much happiness."-
[Rural Press.

Biting the Finger-Nails.
The tendency to bite the finger-nails is caused by irritation of a nervous character about the finger ends-the nails are sick and should be
treated accordingly. Trim the nails evenly, leaving them smooth at the edges. If they are too short to be trimmed, leave that till they grow. After washing the hands, brush the ends of the fingers well with a nail-brush, dipping them frequently in clean, cool water, thus getting all foreign matter and ragged edges from above and around the nail, After dfying the hands with a soft cloth, rub each nail seprarately until it is very glossy. Do not allow the skin to grow over and hide the white root of the nail. This treatment allays irrita you, ail you are wilng to dor a time of biting them ; but one complaint abont its being "too much tronble" may spoil your efforts "too much tronbe" may spoil your efforts
altogether. The above treatment, if persevered altogether.
in, will cure this troublessome habit. AAter a
time the ni's will become so pretty in the child's time the nai's will become so pretty in the child's
sight that she will suffer some annoyance rather sight that she wil
than mar them.
In place of tall celery glasses, formerly in fashion, , there are a variety of horizontal shapes贺 whater the celery stalks are laid, Simflar Shishes with folding si
dinner cofe
dinner coffee spoons.
We particularly desile eall whoobtatin any of the prizen we sur siviog ror ohtulng ne $\substack{\text { at your sho } \\ \text { pomstite. }}$

## Wince Gamer





Mi Dun NEPHEWS AND NIECEs,


Ihargiven you so many puzzles this month, that now rate the year is Clawing to a close, the con-
 judy off carefully the have never as Yet made
any infenco as to the manner or Now time the
 cunt em too whose work is meetly and carefully
vuitton it think we have had some excellent

 know several, and they are determined to got
her wo. It is not so very difficult to set 200








## Puzzles.    <br>   <br>  <br> $1000, H$ Fee 2 YT JJ














Mater frame Fair Brother




NOVEMBER, 1889

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HARRY A. WO
-POINTED Star. , ind inkle litte stor, lez lillarat last,


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November, 1889
THE FARMER'S ADVOCATE.
363

In Good Company. dressing young men, "to pass an evening once aressing young men, lo pass an evening once
or twice a-week in a lady's drawing room, even though the conversation is slow, "and you know or the pit of a theatre. All the amusements of youth to which virtuous' women are not ad mitted, rely on it,' are deleterious to their ${ }^{\text {naturell }}$
"All men who avoid female society have dull perceptions, and are stupid, or have gross tastes,
and revolt against what is pure. Your elnb awaggerers, who are suckingthe butts of billiard cues all night; call female society insipid. Poetry is uninspiring to a yokel ; beauty has no charm for a blind man'; music does not please a poor beast who doos not know one tune from another but as a trae epicinal and butter, I protest can sit for a whole night talking to a wellcan sutate, kindy woman about hor girl Fanny,
ror her boy Frank, aid like the evening's enteror her boy Frank, and like the evening's enter
tainment.
Thought It Was Her Husband. Some men who pass for respectable citizens, and who really are not without good with their wives, but of doing it in terms such as no gentle. man would ever think of applying to any lady except his own wife, or possibly his own sister. There is a story that such a man came home from the shop one night and found his wife much excited over hed for something to eat, and not liking what the woman gave him, had abused her in the roundest terms.
"Johnay," said the man, thoroughly indignant,
"when you heard that cowardly rascal abnsing tore and let me know? I would have made hort work of him. Didn't you hear? "Yes, pá, I heard. I was out in' the barn and heard what he said about the vituals; but """But what ?"
"Why, pa, 1 though it was you scolding when dinner doesn't suit you. I'didn't think anybody else would dare talk to mother in that vay."-[Atlanta Constitution.
"What is a fool-killer, pa ${ }^{\text {" " "A fool-kil }}$
my boy, is a little thing called a cigarette." Complinentary. Charlie (who has been
(wor har hour)-"Say, Ned, do
 you think there is
"I don't know.
hear any come out."
Exear any come out. Excited Sportsman (to farmer)- Say, did
you see aird fall anywhere about here? I'shot
at one nust now and saw the feathers fly." you see "ust now and saw the feathers fly."
at one
Farmer " "No. I aint seen nothin" of it. "em."
Pleasant Task.-The soul of refined conners, namely, goodwill towards others, and a de sire to secure their confort and increase cher halpiness. The great anthoritative putting
on the subject. The authen
this law is, Do as you would be done by.
Renin Hair.- In Ireland loeks of the most fiery
huée have long been regarded as an attribute of
beautty, even by the peasantry. "She's an
illigant lady, good luck, to her!" some ragged
loiterer will say. "She's a mighty fine woman
loiterer wo sly its a pity that she has not red
entirely ; on old Irish ditty has these lines:-
hair."


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THE JOHN ABELL ENGINE AND MACHINE WORKS, TORONTO ONT STEAM \& HORSE-POWER THRRSHING OUTFITS, "VICTOR" CLOVER HULLRR, SAW MILLS, FLOUR MLLLS, BOLLERS

Permanent Canvassers Wanted in Every County


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AND SHORTHAND INSTITUTE,
OPPOSITE GORE PARK, HAMILTON, ONTARIO.



BAIN WAGON CO.'S FARM TRUCIE.


[^1]


STOCK GOSSIP.




 Mr. Arthur Johnston is nerootiati



 stillion, Glenelk of Kipendarlit sired by knight


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 entire satisfaction with the resulfs obtained from Mr. F. W. Stone of Moreton Lodpe: Guelph,

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and nereasine
Chester whites.











## STOCK GOSSIP.







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 The founy draught horse.

The Patterson Steel Prame Grain Drill


It oan be instantly repulated do run at any desired depth without stopping the team. It does sow all kind of rain thorouphy, eventy and at a uniorm del.



OUR PIOWS GANG PIOWS HARROWS, CULTIVATORS \& CUTTING BOXES re all first-class and thorovghly reliable.

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 THE FITTEST SURVIVESO, ONT
 GENUINE WHITE THRESHING ENGINE,




 Cefor pur casion iosewhere.

A. W. WHITE, Asse. Nanazer. 267-H1


[^0]:    The Shropshire flock were winners of Prince of Wales＇prize of $\$ 50$ in 1887，English Shropshire Association＇s silver cup in 1888 ，and first pen prize at Toronto Industrial，， $1=89$ ．Sheep sold from the fock were winners of every first prize at Ottawa Central，besides the 8.0 silver cup for best are reprisentatives of eleven families，lately bred in the noted Scotch herd of Amos Cruickshank，Sittyton．They are deep fleshed，low set，massive animals；good milkers，good thrivers and goond breeders．Animals from．the herd have won numerous prizes in Eastern Ontario and in the western sates the present year．Nine superior young bis now ready ior delivery．Cat or ord weight and strength，for sale．

[^1]:    THIS cut represents he most convenient Waane ever pút on

