

J. G. Butherford, V.S.
in Dec 20, 01

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

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VOL. XXXVII. WINNIPEG. JANUARY 6, 1902. MANITOBA. No. 541

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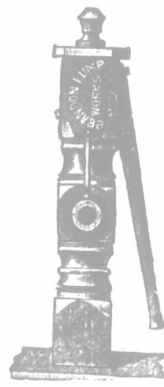
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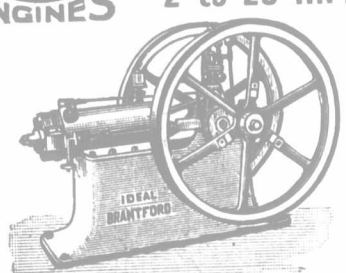
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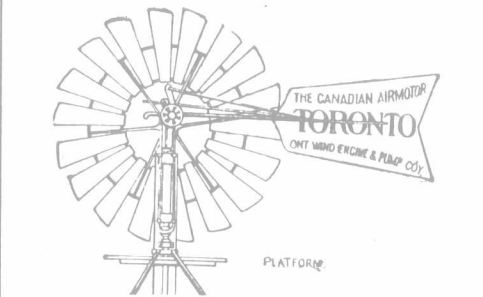


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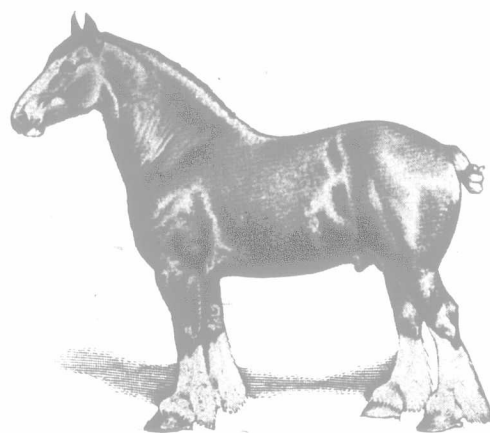
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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

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Vol. XXXVII.

WINNIPEG, MANITOBA, JANUARY 6, 1902.

No. 541

A Bright Outlook.

One of the most remarkable features in connection with agriculture on this continent during the year which has just closed is the revival of live-stock husbandry.

In Ontario and the provinces down by the sea, live stock is rapidly gaining in importance and popularity, as evidenced by the successful fat-stock and breeding shows, the valuable importations from over seas and the continued upward tendency of prices for animals of real individual merit. All down the circuit of the great fairs, and at the sales throughout the States of the Middle West, reaching a climax at the Platt sale in November and the International Live Stock Exposition in Chicago in December, evidences were everywhere present of this great revival of interest in live stock.

The great wheat crop of our own country would, a few years ago, have been a decided setback to the more general introduction of stock-raising, by demonstrating the comparative ease with which money could be made out of wheat without the necessity of investing capital in stock, buildings and equipment, or of working all the year round. Now, however, with the experience of the past to guide us, the proceeds of this big crop will help to bring about a more permanently successful system of agriculture by enabling everyone to procure seed stock, erect suitable buildings, provide pasture by seeding down or otherwise, and fencing, dividing the farms where necessary. There are, unfortunately, districts which, from lack of water or other natural causes, are not well adapted to a general line of mixed farming, but there is no intelligent farmer but will admit the necessity of treating land that has been cultivated for a number of years in some way which will inexpensively furnish humus or vegetable matter in order to restore the moisture-retaining and mechanical condition of the soil, no matter how much fertility it may yet possess, or how abundantly it may yield under favorable weather conditions. Unquestionably the readiest way of supplying humus, especially where the area cultivated is large for the force employed, is by seeding down to grass. Any variety that suits the locality will accomplish this purpose, but the heavier the root growth the better. The decaying grass roots not only increase the available plant food in the soil, but act as a sponge in taking up and retaining moisture, keep light, loose soils from drifting, and heavy clays from baking.

Seeding down to grass is generally displacing the summer-fallow in the rotation. Once establish a grass rotation and stock-raising follows almost as a natural sequence.

As a result of the big crop of 1901, we look for an immense amount of permanent improvements in the homes and on the farms of the West: house and barn building, fencing, etc., as well as the more general introduction of live stock.

Among the thousands of Westerners who are spending their Christmas holidays with the old folks in Ontario and the Eastern Provinces, many have money in their pockets prepared to buy pure-bred stock, either for improving herds or establishing new ones. There is room for all that may come: that is, if the quality is right. The prospect for the Western breeders was never more encouraging, as with the rapid development of the farming districts and of the great ranching country to the west, the demand for well-bred, hardy, vigorous males, reared in a common-sense way, is practically unlimited.

How to Farm in the West.

We take pleasure in directing the attention of all our readers, both old settlers and new, to the series of articles begun in this issue by Superintendent Bedford, of the Brandon Experimental Farm, on the momentous question, "How to Farm in Manitoba."

The articles will be specially calculated to help new settlers, a constantly-increasing number of whom are becoming regular readers of the "Advocate." Anything that helps the new settler towards success benefits every other resident, and we expect that many experienced farmers will add to the value of this series of articles by contributing of their own experience, whether it be in accordance or not with the views expressed by others. We shall be glad if new settlers (or others for that matter) will freely ask questions or state difficulties they are experiencing, so that the articles may be made as helpful as possible. Mr. Bedford has consented to lead off in this series of articles, and from his long experience, extending over 25 years in the West, he can tell us much that is most useful, but he is far too modest a man to claim to speak for the whole West, and these articles are not intended to be circumscribed within the narrow limit of Manitoba's boundaries, but to reach out as widely as the circulation of the "Advocate" itself, and consequently there is a broad field to cover, and we look for the co-operation of many of our friends and readers.

To Make the Drumsticks Tender.

One who has once drawn the tendons from a chicken or turkey, no matter how the fowl is to be cooked, will never again use one having the tough sinews unremoved. A marketman will draw a fowl's tendons for the asking, but it is a task every housewife ought to know how to perform herself. Buy a fowl with its legs left on, turn it on its breast and hold the back of each leg, one at a time, of course, in the left hand. With a sharp knife in the right hand cut very carefully just below the knee joint, through the skin, not any deeper. Inside will be found a group of tendons, there being eight in each leg, lying snug in a groove. They are attached to the foot, but through the dark meat they run away up into the leg, well into the upper joint. With a strong wire skewer lift each tendon separately, hold the chicken firmly, and pull. If the chicken is young and tender, each tendon will come out easily, and it can be pulled by a slight effort. If the bird has seen several Thanksgivings, all the muscle that can be put into the job will be required, but it is exactly such a bird that demands most the tendon-drawing process.

A turkey calls for more muscle, and "a long pull, a strong pull, and a pull all together." Cut the skin in the leg about half way between the knee joint and foot, and there will be discovered immediately the group of shining white tendons. Slip a strong skewer, or if the bird is quite elderly, the point of the sharpener that belongs to a carving set, under the bunch of tendons. Lift them carefully, then twist around two or three times, acquiring a firm hold. Give a strong pull and out they will come, together. Count them, and if there are not eight, go after the ones that are left. With these tough sinews removed, the dark meat is so delicious and tender that the drumsticks of one turkey will be found scarcely a large enough supply for the family table.—(Good Housekeeping.)

Winnipeg Industrial Fair Dates.

In response to a request from the Cattle Breeders' and Sheep and Swine Breeders' Associations, the Winnipeg Industrial Exhibition Association have fixed the dates for the 1902 fair a week earlier than last year, the dates selected being the week beginning July 21st. This date will be found much more convenient for the live stock exhibitors and for the farmers who visit the fair, as it will not interfere so much with haying, and will not run so dangerously close to the harvest.

Baby Beef for Winnipeg or Local Markets.

There is always a good market for a limited number of well-fitted light butchers' cattle in Winnipeg and local towns of the West in the spring months when the frozen meat is about done and before grass beef can be ready. By selecting early spring or winter calves that are in good flesh in the fall, feeding them generously till about the middle of January or first of February, and then putting them on liberal grain feed, gradually increasing it towards spring, these youngsters, at about fifteen months old, can be made to weigh 1,000 or 1,100 pounds, and being small, will suit the early spring butcher trade. In this connection the following item from the Farmer's Gazette, of Ireland, is of interest:

"As all who make a specialty of finishing off young stock for the market when from 18 to 20 months of age are aware, it always pays to treat calves generously in the matter of feeding. In order to make the most of them, they should be well supplied with such foods as are required to keep them steadily improving from the date of birth until they are fit for the market. It may seem an impracticable idea, this, but we know of a number of cases in which it is studiously observed, and in which the results obtained more than justify the expense and trouble gone to. We know one successful feeder who, as soon as his calves are weaned—even when they are on the best grass—commences to give the animals a small allowance of concentrated foods (cake and corn), and continues doing so right through the year, steadily increasing the allowance as the winter season comes on, and, as a consequence, getting the animals to emerge in the spring in the sleek, plump condition which is so pleasing to behold, and which is in gratifying contrast with the appearance presented by so many of the young stock reared in those parts of the country where the animals are put off with what they can pick up on the fields, supplemented by an occasional wisp of hay or other fodder during hard weather. In the case to which we refer, the calves are kept steadily improving from day to day, with the result that when they reach from 18 to 20 months of age they are fit for the butcher, and then bring prices ranging from £13 to £14 and £15. Of course, it costs a bit to feed them up to this stage, but when the fact that fully a year is saved in the time required to fatten them, and that the breeder gets at least three lots of them through his hands while the ordinary feeder is working off only two sets, more than makes up for the extra expense incurred, and leaves a substantially better return than is obtained where the old-fashioned system of keeping the animals until two or three years of age, and practically starving them on their first and second winters, is followed."

Preventing Abortion.

A writer in the Veterinary Record reports most satisfactory results in preventing abortion in cows by the persistent use of a new antiseptic, Chinosol. He says:

"Four years ago I was consulted concerning an outbreak of abortion in cows, which had been prevalent for several seasons amongst the herd on the premises. I treated it with Chinosol. Directly a cow aborted she was removed to a separate building, and the calf and placenta, after being disinfected with a solution of Chinosol (1:1000) were burnt. The womb of the cow was then irrigated with a solution of Chinosol (1:1200) and this repeated every day for three days, and then every other day for a week. All the pregnant cows were sponged daily round the vulva and anus with a similar solution. The floor in the shed was scraped and swept every week, and then disinfected with a solution of Chinosol (1:2400). Only one case occurred after, due, I consider, to the germ having gained access to the pregnant womb previous to treatment. The treatment was carried out again in 1898, since which there have only been a few isolated cases, which, after treatment, did not spread to the rest of the herd. I have made enquiries this year, and there has not been a single case of abortion on the premises. Chinosol is still being used."

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN MANITOBA
AND N.-W. T.

PUBLISHED SEMI-MONTHLY BY
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THE WILLIAM WELD COMPANY (LIMITED),
WINNIPEG, MANITOBA.

Mr. Lister on Canada.

Many readers of the "Farmer's Advocate" will remember the visit, a few years ago, to Canada, of Mr. R. A. Lister, the well-known manufacturer of centrifugal cream separators, Dursley, Eng., who visited all parts of the Dominion, making a most careful enquiry into the varied resources. That he made excellent use of his observations is now apparent from the Gloucester, Eng., Journal of Nov. 30th, a copy of which is to hand. By special invitation, Mr. Lister delivered before the Gloucester Chamber of Commerce an able and comprehensive paper on "Canada: Its Commercial, Agricultural and General Importance to the Empire." He reviewed its early history, form of government, growth, the extent of U. S. competition, staple industries, ore and steel enterprises, agriculture, tariffs, and the splendid opportunity which Canada presents to settlers. While he admitted that its vast resources had only been tapped to a very small extent, it was to-day the most advanced and best developed of all the outlying portions of the British Empire. That the ties which bound Britain and her colonies together were real and patriotic, he said, they had fully realized during the past three years. "Notwithstanding this," said he, in conclusion, "our strongest and only permanent bond is the bond of commerce, and when we allow our national prosperity, either through military aggrandizement, neglect of education, want of enterprise or sobriety and industry, to so diminish our purchasing power that we are no longer the largest customers of these colonies, then, and not till then, shall we find them ready to declare their wish to separate from the motherland."

A Hustler.

The way some new settlers hustle is well illustrated by the brief statement furnished by Mr. J. E. Martin, Wascana, Assa. When renewing his subscription to the "Farmer's Advocate," he says: "This is my second year in the North-west. I broke and backed 60 acres last year (1900), seeded 18 in wheat and threshed 2,001 bushels this fall. The balance 12 acres, I had in oats and potatoes. Threshed 251 bushels of oats, and fed two loads in the shed. I built a Thorold cement house, 30x23, 25 foot walls, basement full size of house; also built a stable 30x26, and broke 25 acres.

Manitoba Dairy Statistics.

The statistics furnished by the Department of Agriculture regarding the output of butter for the Province of Manitoba during the past year show very satisfactory figures. The production of cheese has been, however, at a standstill. The report reads:

"The season of 1901 has been the most successful season in the history of the dairy industry of this Province. The conditions throughout the season in that part of the Province lying west of the Red River have been most favorable for the production of butter. The pasture came on early in the season, was abundant and good, and the plentiful rains kept it in splendid condition until the creameries closed in the latter part of October and early in November. The increase of dairy butter has been 31 per cent. over last year, and the average price has remained about the same, showing a correspondingly large increase in the net value. The output of creamery butter has made a most phenomenal stride, showing an increase of 96 per cent. over last year. The average price is about 1 1-5c. lower than last year, but the net value has greatly increased. There have been few drawbacks to creamery industry, and the general report throughout the season has been most gratifying.

There has been very little increase in the output of cheese, and the average price has been a little over 1 1/2c. below last year. The conditions in the cheese districts of Manitoba were such as to diminish the flow of milk during the entire season, which is the only accountable reason for not showing a greater increase. The quality and make of cheese has greatly improved, and fewer complaints have been received of this year's work than of that of any former year in the history of this industry.

A steady growth is predicted by all interested in the dairy industry for the coming season, and a tendency is to be noted in this direction throughout the entire Province."

BUTTER MARKETING BY FARMERS.

District.	Quantity, Pounds.	Average Price.	Total Value.
North-west.....	502,500	13.33c.	\$ 66,994 24
South-west.....	762,440	14.5c.	110,553 80
North central.....	300,900	13.8c.	41,524 20
South central.....	403,800	13.25c.	53,503 50
Eastern.....	778,260	15.8c.	122,965 08
Province.....	2,748,000	14.04c.	\$395,540 82

SUMMARY OF DAIRY PRODUCTS FOR THE YEAR.

Butter.	Pounds.	Price.	Value.
Dairy.....	2,748,000	14.04c.	\$395,540 82
Creamery.....	2,100,650	17.88c.	412,424 87
			\$837,965 69
Cheese.....			
Factory.....	1,039,392	8.5c.	88,348 32
Total dairy products.....			\$926,314 01

A point worthy of notice is, that in spite of the numerous little creameries established all over the Province, the production of farm dairy butter goes on increasing rapidly, showing 50 per cent. of an increase in 1900, and 30 per cent. in 1901. At the same time, the average price is not half a cent lower in 1901 than for the year previous, while creamery butter depreciated in price over a cent a pound.

It is also noticeable that the average price given for dairy butter is about 4 cents lower than for creamery butter, which is about the cost of making in the small creameries. So that it seems that many farmers' wives prefer to make up their own butter and sell it for what they could get for the cream, doing all the labor for nothing. Surely this is not because the womenfolk on the farms of Manitoba have not enough work to do without making butter; there must be some other reason for it.

In the eastern crop district, where considerably the largest output of dairy butter is made, the price is more than a cent above the average for the Province, and only two cents below the average of creamery. This is doubtless to be accounted for by the high prices paid in Winnipeg for large quantities of dairy butter supplied to private customers.

In view of the importance of the dairy butter industry and that it continues to grow so persistently, is it not worthy of more attention from the dairy branch of the Government, which has a grant of over \$8,000 a year, which is mostly spent to encourage the factory business and the multiplication of creameries. The number of dairy butter-makers that can be reached through the Government Dairy School is infinitesimal compared with what could be reached by a travelling dairy institute, which under present circumstances, could be made to accomplish far more good to the Province as a whole than can be obtained by the dairy school. In the district devoted to farm dairying, instruction could be given along the line, and in sections where creameries were present, the instruction would be directed to the operation and care of creamery. Where the trend of trade in leading dairy

countries and the best interests of the industry, as pointed out by so eminent an authority as Prof. Ruddick, is in the centralization of creameries in order to reduce the cost of making to a minimum, what is the use in spending such proportionately large grants in bolstering an industry from the wrong side.

Agricultural Societies' Annual Meetings.

The annual meetings of the local agricultural societies have, judging from the reports published in the local press, been fairly well attended, and most of the societies seem to be in comparatively good financial circumstances. The Portage and Lakeside Society, the oldest in the West, have for the past two years, in connection with their annual meetings, held banquets which have been very successful affairs and largely attended. Judging from the reports, almost as popular and largely attended as the annual fairs.

At some of the meetings grain shows were held, when prizes were offered for samples of grain of various kinds, and at one Society, Manitou, a grain and poultry show was held. These exhibits do not seem to have been very successful, however, and in the case of Manitou it was decided that in future the show would not be subdivided, but that all classes of exhibits would be shown at the same time.

One of the most complete and interesting reports that has come to our notice is that of the Saltcoats Society, as published in the Assiniboian. The director's report deals fully with every branch of the work of the Society during the year. Very great satisfaction is expressed at the action of the Territorial Government in supplying expert judges. In connection with this work it is suggested that instead of supplying only one judge to judge all classes of live stock, that two should be supplied, one for horses and one for other stock, and that the judges should be required to explain the reasons for giving their awards, and thus increase the educational benefits of the fair.

A strong point is brought out in the report in connection with the allotment of Government grants, which is worthy of serious consideration. We quote as follows:

"Societies receive a share of the total sum allotted by the Government for distribution amongst agricultural societies in proportion to the amount they themselves raised the previous year, commencing at \$350 as the lowest amount that they must have raised, and up to \$1,000. Thus, a society having raised \$500 the previous year would receive more of the grant than one that had only raised the minimum of \$350. This is right, enough if the society is a genuine agricultural society, but when it amalgamates with horse-racing associations and is kept up principally as a means of drawing a big crowd through horse races, merry-go-rounds and talking dolls, to spend as much money as possible amongst the business promoters, without any consideration of an agricultural show other than sufficient to a certain extent to aid as a blind, and when such an organization is able, by means of showing large receipts, much of which is paid in as horse-racing fees and licenses from fake side-shows, to draw a larger proportionate amount of the grant than their status as a purely agricultural Society entitles them to, thus lowering the grants to other societies,—

"It is time to protest and request the Department to recognize only such receipts as are paid in for agricultural society purposes, and thus do justice to other societies that attend to business in a genuine way and are struggling to fulfill their destiny from a legitimate agricultural standpoint."

All Sick Fowls Should be Killed.

No one can afford to keep sick fowls unless they are very valuable specimens, and even then the chances of recovery or a return to usefulness, at least, are very slim. When allowed to run about they will spread their disease among the balance of the flock. When placed alone for treatment, the time and money expended for nostrums to cure them are beyond the value of the fowl. Time, money, and anxiety would be better saved by killing the ailing one. Then there is no danger of the trouble spreading into the young stock, nor will there be any danger in the future of eating one of its young whose carcass may be infested by disease.—Exchange.

In North Dakota flax is very extensively grown. The area under this crop this year was 1,500,000 acres. The total flax crop of the United States is placed at something over 25,000,000 bushels. About 20,000,000 bushels will be required for home consumption, leaving the balance for export.



MR. CHARLES THOMAS, LAUDER, MAN.

Whose 1901 farm crops were: Wheat, 1,050 acres, 25,750 bushels, average yield per acre 24 1/2 bushels; oats, 250 acres, 10,000 bushels, average yield 40 bushels per acre.

The Live Stock Conventions.

A joint meeting of the Executive Committees of the Pure-bred Cattle Breeders' and the Sheep and Swine Breeders' Associations was held in Winnipeg on the 12th of December. The meeting was well attended, there being present Messrs. J. A. McGill, Neepawa; James Bray, Longburn; J. G. Barron, Carberry; W. G. Styles, Rosser; F. W. Brown, Portage la Prairie; J. G. Washington, Ninga; S. J. Thompson, V. S., Winnipeg; Messrs. John Traquair, Welwyn, and James Yule, Crystal City. The annual live-stock conventions will be held on February 18th and 19th, being the week of the Bonspiel, when single fare return tickets are available from all points on all railway lines.

The Sheep and Swine Breeders' Association will meet on Tuesday, the Pure-bred Cattle Breeders' on Wednesday, and the Horse Breeders' on Thursday. The Dairy Association also holds its annual meeting on Thursday. And the annual Winter Poultry Show will be held in Winnipeg during the same week.

An innovation will be introduced this year in the way of a live-stock judging institute, which it is proposed to hold on the afternoon of each day, when representative animals of the different breeds will be introduced, and lectures upon them will be delivered by some of the best live-stock instructors on the continent—such men as Prof. Curtiss, of Iowa; Prof. Geo. E. Day, of Guelph Agricultural College; Prof. Gridale, of the Dominion Experimental Farm staff, Ottawa; Dr. A. G. Hopkins, of the "Farmer's Advocate" staff, Winnipeg; the Live Stock Commissioner, and others.

These practical object-lessons dealing with the characteristic points of the various individuals and breeds will certainly be of the greatest benefit, not only to the breeders themselves, but to all farmers interested in any way in live stock.

At the evening sessions each day, joint meetings of the Live Stock Associations will be held in the City Hall, at which addresses will be delivered by some of the best available agricultural speakers on the continent. The imperative need of an agricultural college for the Province will be one of the subjects receiving a large share of attention, also the improvement of the local fairs, the appointment by the Government of expert judges, etc. The Winnipeg Exhibition management were also urged to fix the dates of their 1902 fair at least a week earlier than last year, as the late date interferes greatly with haying, etc.

The bull trade with the West will also form an important subject for discussion, as to means of extending Manitoba's trade, and it is expected that Mr. C. W. Peterson, Deputy Commissioner of Agriculture, will speak on the question. Last year, chiefly through the efforts of the Pure-bred Cattle Breeders' Association, the Manitoba breeders sent 26 bulls to the Territories under the auspices of the Territorial Government, while Ontario only sent in 12. The year before, Ontario supplied over twice as many as Manitoba. The Manitoba bred bulls are proving much more suitable for Western conditions, and in every way giving better satisfaction.

An Angus Champion.

To the Editor "Farmer's Advocate":

In your issue of the 5th of December, there appears a letter from Mr. Hugh McKellar on "Our Cattle Trade," which contains one, at least, very misleading statement, which is calculated to damage the breeders of some of our beef breeds of cattle.

Mr. McKellar says a "perfect Shorthorn is the type" of "shape, form and build" required for export to the English market. Now, I have nothing to say against the Shorthorn, and there is no doubt that the improvement of that breed has done more to raise the standard of beef cattle throughout the world than the improvement of any one other breed; but, as Prof. Shaw told us at the Winnipeg Industrial this last summer, the Scotch breeders, whose cattle have done so well at the block, are rounding off the corners of their animals and approaching nearer the Polled Angus model.

If, as Mr. McKellar says, the "perfect Shorthorn is the type," how is it that at Pittsburg Fat Stock Show, held last month, one Angus steer sold for \$25 per 100 lbs., live weight, and 13 more for \$21.50 per 100 lbs., and yet 16 more from \$20 down to \$11 per 100 lbs., while there was but one Hereford sold in the two figures (\$11.25), and not one Shorthorn sold over \$8.50 per 100 lbs.?

And, once again, on Nov. 18th, at the Stockyards, East Liberty, Pa., a steer (sire, Angus bull; dam, Hereford cow) sold for \$200 per 100 lbs., or for \$4,380, as he weighed close on 2,200 lbs. (Breeder's Gazette, Nov. 27, 1901).

It is also fresh in the minds of most of us (Angus breeders, at any rate) that last year at Chicago the Angus steer, "Advance," grand champion of the show, sold for \$1.50 per lb. on the hoof, and that Clay, Robinson & Co. sold a carload for S. H. Kerrick for \$15.50 per 100 lbs.

But it may be said that these are not English markets.

Well, in 1893 and 1894 we find Mr. Clement Stephenson gaining the highest honors at Norwich, Birmingham and London with Angus heifers,



FIVE-HORSE TEAMS PLOWING.

On the farm of Charles Thomas, Lauder, Manitoba.

ers, one of which, "Benton Bride," brought him in £660 (\$3,300) in prizes aforesaid, and in 1897, "Scotland Yet," in the "Farmer's Advocate" (Jan. 20th issue), sums up the situation thus: "Naturally, breeders of Aberdeen-Angus cattle are overjoyed at the result, and as a beef breed the polled blacks are easily first."

In 1899 again the champion at Smithfield and Birmingham was "Ju-Ju of Glamis," an Angus heifer owned by the Earl of Strathmore, and so on "ad infinitum."

Perhaps Mr. Editor, you have had nearly enough about the "breed that beats the record," but I can hardly conclude without enumerating its principal good points, which may be placed in the following order:

1. Early maturity—baby beef.
2. Good constitution.
3. Absence of horns—requiring less stable room and car space.
4. High price of the finished product in the markets of Great Britain and the U. S. I may add, it is only a question of time before they will be occupying the same proud position in Canada. It is a fact, also, that should not be lost sight of, that some families produce great (very rich) milkers, and at one of the great English shows in

the early nineties, at which all of the leading milking breeds competed, an Angus cow won the first and Thorley's prize.

Since writing the above, the report of the Chicago Show has come to hand, and again we find that in the grand championship competition a Hereford and two Angus were in the ring, the former taking first place; but, in commenting on this judgment, the judge, Mr. Peter (an Englishman imported for the occasion), said: "It is unfortunate that three such animals should be required to compete for one ribbon." No Shorthorns in sight.

F. J. COLLYER.

Welwyn, Assa.

Editorial Note.—Had Mr. Collyer, when writing the above, seen the report of the 1901 Smithfield Show, which we publish elsewhere in this issue, he would have had a still heavier charge of ammunition for his gun.

The Itinerary of the Agricultural College Commission.

The members of the Agricultural College Commission that have returned from their visit through the States and Ontario are more enthusiastic than ever regarding the need of an agricultural college for Manitoba. Leaving Winnipeg the first week of December, the deputation, which consisted of the farmer members of the Commission, Messrs. George H. Halse, Brandon; J. S. Millar, Manitou; Harry Irwin, Neepawa; and Harvie Simpson, Virden, visited the North Dakota College at Fargo, where they were received by Prof. Worst and Prof. Shepperd, and shown every attention. They were very much impressed with the good work that is being carried on at this station. Their next visit was to Minnesota Agricultural College at St. Anthony Park, where they were taken in charge by Prof. Tucker. Mrs. Virginia Meredith, who is in charge of the girl's branch of the school there, showed them through the Department of Domestic Science, which has been so wonderfully developed at the Minnesota College. This feature impressed itself strongly upon the members of the Commission as one of the most practical and helpful in the upbuilding of home life on the farm.

The Wisconsin College was next visited. It is located at Madison, the capital of the State, and here Professors Henry and Carlyle showed the members every attention. The magnificent buildings and the practical short course that is carried on here was of very great interest. In going through Chicago the members visited the stock yards, but, unfortunately, were a few days too late for the International Stock Show. They, however, saw the Coliseum and the other buildings in which this world-beating show was housed.

A most interesting visit was that to the Iowa Agricultural College at Ames, where Professors Curtiss and W. J. Kennedy are doing such excellent work in live stock. The live stock at this College was undoubtedly the best seen at any of the Colleges visited. Domestic science is also a strong feature at Ames. The Michigan State College was also visited at Lansing. Here Prof. J. J. Ferguson entertained the visitors, who were particularly impressed with the stock barn, which is comfortable and completely equipped and is of a very inexpensive character, such as might be adopted by any farmer.

The Ontario Agricultural College at Guelph was also visited, and here a considerable time was spent. Mr. George E. Day, Professor of Animal Husbandry, and Prof. Zavitz looked after the delegation, and much valuable information was gleaned from this successful institution.



SIX BINDERS AND FOURTEEN MEN.

Harvesting the 1901 crop of Charles Thomas, Lauder, Manitoba.

Experience with Incubators.

To the Editor "Farmer's Advocate":

I would like to give the readers of the "Advocate" my experience with incubators during the past year. Last March Mr. L. Kinley and myself decided to invest in two incubators. After writing to every advertiser and getting deluged with catalogues, etc., each claiming for their machine special merits over all others, Mr. Kinley decided to purchase a machine made in London, Ont. In the meantime, I had written the Experimental Farm about the matter, and the answer came back to buy a Cyphers machine. I did so, and have no reason to regret it. After giving both machines a thorough trial all summer, I find the Syphers is just as firm as when first set up. There is not a crack between the joints where I could insert the point of a penknife. I can't say the same of the other, for we had it only a few weeks when we could run a jackknife blade up to the handle through the cracks. The wood had been put together while green, or far from being dry. Our Cyphers is an honest machine, and I would not be without it for more than its price. We placed 220 hen eggs in the Cyphers, and got out 75 per cent. of fertile eggs; the chicks were a fine, healthy lot. This was the first of May when set. I might say that we had set the other machine three weeks before this, and got a hatch of 35 chicks from 210 hen eggs. Reset both machines, the Cyphers with hen eggs and the other with duck eggs; about 80 per cent. hatched from both machines. In testing both machines, side by side, I find the Cyphers was very little, if any, affected by change of weather. The regulator of Cyphers worked to perfection, with one exception, and that was when a couple of women came in and laid their wraps on the pan, and, of course, prevented the regulator from working. Of course, being our first year, we made a number of blunders. Our first mistake was in not providing a brooder house. We had the brooders all right, but thought they would do, but wet and cold days came on, and, of course, as soon as the little chicks were let out they got wet and chilled, and we lost large numbers. If a brooder house had been erected, anything to shelter from wind and keep dry and give the chicks a run would have done, and the chicks might all have been saved. Then, another mistake was in having all the different hatches in the one yard. The older and stronger came to the top, while the younger and weaker were tramped upon, and, of course, received more or less injury. Another mistake was in not laying in a supply of feed while it was cheap, and, in consequence, we had to buy most of our feed when it was at the top price and very hard to get. Yet we made it a success, and have every confidence in poultry-raising.

I have no use for the hen except to lay eggs; the incubator and brooder will do the rest, and do it better. More fertile eggs can be hatched by incubator and more chickens raised by brooder—not only raised, but better raised.

I sold cockerels two months old for 96 cents a pair—12½ cents a pound. I could have sold thousands of ducks and chickens if I had them for 12½ cents per pound. One firm offered me 12½ cents per pound, dressed, delivered at Wapella station; another firm offered me 12½ cents per pound, live weight, Winnipeg station. These prices were for ducks and chickens.

There is more money in raising ducks if they can be disposed of at ten weeks old. Good Pekin ducks can be made to weigh from eleven to twelve pounds at ten weeks. If they are not disposed of then they get their pinfeathers, and will not be fit for market for ten or twelve weeks longer. I find that to keep them till fall they will eat their heads off. I had the Black, the Rouen and Pekin ducks, and find the Pekin the best. I had one pair of Pekins that weighed over seven pounds at ten weeks old.

I find the Plymouth Rocks and Wyandottes give the most satisfaction for market. I had this summer the Brahmas, Leghorns, Black Minorcas, Rocks and Wyandottes; also a cross between the Rocks and Wyandottes, and find the best for market is the cross. The Rocks and Wyandottes developed faster than the Brahmas. For market fowl I shall, after this, cross the Rocks and Wyandottes, using a Plymouth Rock cock and a Wyandotte hen. I get a fine, large, early-developed bird, and one that will stand cramming.

Then, for early-winter layers the Rocks and Wyandottes are away ahead of Brahmas. I cannot say what the Minorcas and Leghorns would do as early layers, as I sold all the pullets of this fall and killed the cockerels. My Rocks and Wyandottes have been laying for a long time, but Brahmas show no sign up to the present, although they are faring just the same.

My advice to every farmer is to get a good incubator, provide a brooder house, anything that will shelter from cold winds and the rain; get also some good brooders. Any handy man can make them if he has a good one as a pattern, and most farmers have a supply of feed, and with a little attention and good common sense he will make a success and have a nice little sum of money to help him over tight places.

Be sure and put poultry on market with all the flesh they can be made to carry.

East Assiniboia.

J. B. POWELL.

Beekeeping and Horticulture in Colorado.

To the Editor "Farmer's Advocate":

An interesting series of meetings was held in Denver during November last, when the members of the Beekeepers' Associations and the Horticulturists of Colorado gathered in convention. The two organizations are separate bodies, but as their meetings were in part concurrent, they held one joint session, which was very successful.

As there are many points of resemblance between Colorado and our Canadian West—more particularly Southern Alberta—it is thought the following notes of these meetings may be of interest to readers of the "Advocate." A comparison between Colorado and the West, from an agricultural point of view, may better furnish material for a later article. It may, however, be said, in a general way, that while the winters in the lower part of Colorado are somewhat milder than in Southern Alberta, and much more so than in Manitoba, yet, owing to late springs and the extreme drought of summer, the difficulties to be faced by both beekeeper and horticulturist (and by this latter term we mean, particularly, fruit-growers) are almost identical with those awaiting solution with ourselves. There is, therefore, good reason for believing that gleanings from the experience of the workers in the lines referred to in Colorado may be of value to ourselves. Indeed, it seems to the writer that much more of immediate value to our Western country may be learned from the successes and failures of Colorado workers than from the experiences of Ontario, where the conditions differ so widely from our own.

The Beekeepers' Association was holding its twenty-second annual meeting. That in itself is suggestive of a well-established industry, and a vast amount of experience. There are said to be over 2,000 persons keeping bees in the State. Only a part of these belong to the Association, but there are enough to make it a strong body. Closely connected with it is a joint stock honey-producers' association, which handles and markets the members' honey and supplies appliances for the business at special rates. This association practically controls the output, and seems to have been pretty successful in its operations in stiffening prices and in other ways.

There is difficulty in getting at the aggregate amount of honey produced in the State and the average product per hive, as the Association does not encourage the furnishing of information on these points to outsiders. The aggregate in 1899 was, however, put approximately at 1,000,000 pounds of comb honey and 200,000 pounds of extracted.

When it is stated, as at the convention, that one person had last season 6,000 pounds of honey, and that another has no less than 250 hives, some idea of the magnitude of the business may be had.

The programme of the convention included a number of papers on expert matters, such as "Grading honey," "Extracted honey," "Abnormal swarming fever," etc.

Of more interest to the novice were the papers by Mr. Moorehouse, on "Advice to beginners," full of excellent hints; that of Prof. Gillette, of the State Agricultural College, on "Long-tongued honey-bees," and a stereopticon lecture by the same gentleman on the "Anatomy of the honey-bee."

Mr. Moorehouse advises beginning with only two or three hives, after a full study has been made of all standard works on beekeeping. If a greater beginning is desired, then success can only be hoped for by either going first to some practical apiarist to serve an apprenticeship for a year or two, or by engaging an expert to superintend the work for a season or two.

Prof. Gillette attacked the supporters of the theory of a strain of long-tongued bees without mercy, and showed by actual measurement that there is no appreciable difference as regards the length of tongue between any of the strains in question.

During the discussions of the convention, the following points came out, which appeared to me worthy of note by those interested in the possibility of bee-culture in our own West.

1. The season during which bees can work profitably is not appreciably longer in Colorado than in the West. If anything, our honey-producing wild flowers are earlier than there.

2. The chief honey or "bee plants" in Colorado are said to be alfalfa, sweet clover (*Melilotus alba*) and spider flower (*Cleome integrifolia*). The former is now the great forage plant of the State, wherever irrigation is attainable. The two others grow wild in abundance along roads and in waste places. These will all do well in the West. *Melilotus* is two species, white and yellow—is spreading rapidly over the country as an escape, particularly the white-flowered. Spider flower is a native, and spreads rapidly when once established. Alfalfa ought to grow as well with us as in Colorado, and will almost certainly be-

come an important forage crop in the near future. Add to the above plants our wild flowers and trees, which are at least as numerous as those of Colorado, and we may surely hope for encouragement for future Western beekeepers.

3. The average yield of honey per hive appears to be about 30 pounds. From the figures given above, it will be seen that especial attention is given to the production of comb honey. Some exceedingly fine specimen sections were put on exhibition during the convention. Much of the high-grade honey is shipped eastward. In the season covered by the report of 1899, 22 carloads of 30,000 pounds each were shipped out of the State. Prices ranged between 10c. and 11c. per pound for comb honey, and 6c. and 7c. for extracted. On the basis of these figures the honey crop of Colorado for season was worth \$112,000.

The writer is strongly impressed with the possibilities before our Western country in regard to this industry, and believes it would well repay the Departments of Agriculture of Manitoba and the Northwest—especially the latter—to have thorough enquiry made into the methods used and results obtained in Colorado, where, as stated above, so many similar conditions prevail. If by some small expenditure now this industry can be started and fostered, it will almost certainly prove of real value to the West.

(REV.) W. A. BURMAN.

A Plea for the Polled Angus.

Since coming to reside in Scotland, I have not infrequently wondered why the Polled-Angus is not more popular in Manitoba than it is at present. Living, as I do, in one of the districts which are famous for breeding Blackskins, I may be accused, perhaps not unreasonably, of having an axe to grind, especially as I admit to being engaged to some extent in breeding them myself. However, I deny any such imputation, for nobody admires a Shorthorn more than I do. And, indeed, after living for so many years in a neighborhood which is rapidly becoming famous for its "Reds, Whites and Roans," it would be little short of heresy for me to "go back on them." More especially would this be the case when I mention some of the more prominent breeders—Messrs. Jos. Washington and William Ryan, and the late Mr. Robert Whyte, of Wakopa, who was a pioneer in every sense of the word, and whose herd is now, I believe, in the hands of his nephew, Alex. Stevenson. And last, because not now resident in Southern Manitoba, but still not least, I would refer to Mr. T. A. Sharpe, of the Experimental Farm at Agassiz, B. C. He it was who first directed my attention to the desirability of the Shorthorn and its many good qualities. But for his almost fatherly care, in this connection at least, I might have dipped into breeding Holssteins or Herefords or anything else.

Nothing will shake my conviction that the Shorthorn is the general-purpose cow. Nay, more, in spite of all that has been written and said to the contrary, I am firmly of opinion that there is such an animal. I see it here, time and again, as I did in Manitoba. What I do want to say is this, that for a purely beef animal, of great hardiness and early-maturing habit, the Polled-Angus is hard to beat. He is a sort of "mullum in parvo," and carries a great deal more meat than the casual observer would ever suppose, and there is not the slightest difficulty in having him fit for the butcher at two years old, or even sooner. Add to this the fact that as a rule (not invariably) the produce of the Angus bull from Shorthorn cows are hornless. A great deal has from time to time been written for and against dehorning, but by breeding as suggested the difficulty is easy of solution. If a man wishes to feed his cattle economically, and also make manure, there can be no question but that dehorning is both safe and profitable. The animals can then be run together loose, and it is the almost invariable practice here to dehorn for feeding purposes beasts that are not polled. Again, the produce of Polled Angus cows (not necessarily pedigree) by a well-bred white Shorthorn bull will generally come of a liver-gray color, and are in much request as store cattle.

Brother Jonathan is fully alive to the merits of the Doddie, and for some years back has been systematically buying Angus cattle of the best families. The American buyers have the herdbook at their finger ends, and, as a prominent breeder remarked to me, seem to know it a good deal better than their Bibles!

Be this as it may, there is no getting over the fact that the average American generally knows a good thing when he sees it. Already Canadians are getting Clydesdales from America, notably from Jamesville and St. Cloud. It cannot be long before the Polled Angus must infallibly assert himself in the Northwest, if not in Manitoba proper, and where are the ranchers and cattle-breeders going for their bulls? Will it be necessary for them to go across "the line" for them, or are they to be supplied by home breeders who have taken the tide at the flood and have sailed on it to prosperity and fortune?

FRANCIS J. B. DOUGLAS
(Lade of Wakopa, Man.)

Buying Feeding Cattle.

"A query in the Canadian 'Farmer's Advocate' has brought out some interesting opinions from the leading cattle feeders there. The question put was the common one on this side just now, 'Providing that cattle are sold for delivery on 1st May at 23s. 4d. per cwt., live weight, at what price should they be bought in November to make the transaction fairly profitable to the feeder, it being understood that cattle of a good beef type are purchased and fed on approved methods?' Of course, the question and answers are all in American money, but for convenience I am giving it in British style. The answers vary a little, but on the whole are exactly what I have often stated to be the experience of feeding in this country. The highest estimate is 18s. 8d. per cwt., and its author stipulates for extra cheap food and extra good beef type of cattle. But the general consensus puts the proper price to purchase at about 16s. 4d. per cwt. This means selling out at seven shillings per cwt. more than purchasing price, and my contention has always been that there should be a margin of at least six shillings. Some years when feeding stuffs are very low in price one can feed cheaper, but it is not safe to go into cattle-feeding extensively at a smaller margin, if it can be helped. All this is built on the basis of good-quality cattle and careful feeding. Buyers are now very much alive to the benefit of getting the right sort, as witness the last sales at Dublin, where the best grades were up to 27s. 6d. per cwt. for feeders of the right sort, and down to 22s. per cwt. for rough lean and coarse cattle. That was as it should be. The same remarks applied to the mutton market. All the buyers were after the best, and low grades were quite neglected. To show the large number of cattle sent over from Ireland, I note that in the week ending 23rd November 53,674 were sent to Great Britain, an increase of 753 on the corresponding week of last year."—Hornburn, in *Scottish Farmer*.

The Cattle Carcass Awards at Guelph.

The rules of the Ontario Winter Fair do not require that animals winning prizes alive shall enter the slaughter test. In the block test for pure-breds the first prize went to a two-year-old Devon steer shown by W. J. Rudd, Eden Mills, which had been placed second in his class alive, there being only two entries in that class. He was a narrow, thin-fleshed, light-hampered steer, standing on long legs and lacking in depth of ribs, but was in good condition, weighing 1,330 lbs. at 2 years and 9 months of age, and dressed 783 lbs., or about 59 per cent. of his live weight. The second-prize animal, a Shorthorn shown by Jas. Gibb, Brooksdale, weighed 1,330 lbs. alive, and dressed 871 lbs., or 65 per cent.; the third, a Galloway shown by D. McCrae, Guelph, weighed 1,360 lbs. alive, and dressed 908 lbs., or nearly 67 per cent. The fourth, a Shorthorn cow 4 years and 6 months old, and excessively fat, weighed alive 1,690 lbs., and dressed 1,176 lbs., or more than 70 per cent.

The grade cattle that were slaughtered weighed alive as follows: The first-prize animal, 1,490; second, 1,580; third, 1,480; and fourth, 1,440 pounds; and dressed 950, 1,002, 999, and 992 pounds, respectively. The championship for the best-dressed carcass, any breed or grade, was awarded to James Bowman, Guelph, for an Aberdeen-Angus grade steer, dressing 63.77 per cent. of his live weight, this fine beef breed thus winning the highest place in the carcass competition this year at the Smithfield of England, the Smithfield of Canada, and the International, Chicago.

To Prevent Egg Eating.

The habit of eating their eggs is the result of idleness among the hens. This idleness causes restlessness and morbid habits, and an inclination to grab at every new thing they see for something to do. If the hens are kept continually at work, digging and hunting in the litter for some small seeds, the restless habit is gone. One of the very best ways to cure the habit is to throw five or six of the white porcelain nest eggs among them on the floor, so they may learn they are like the stones, and a useless task to attempt to break them. In addition to this, elevate the nest from the ground so the hens can not see in them when running about; also place the nests in a dark, out-of-the-way corner that is least frequented by the hens.

It is usually the most restless hens that break the eggs, but when broken all join in eating them. All these habits can be traced to the nervous, restless members of the flock. We can not but feel satisfied that the prime cause of all these faults is the unnatural life the hens must live when kept for eggs during the winter months. If all their wants might be supplied in winter as in summer, then it might be different.

Our Scottish Letter.

I had no idea that four weeks had passed since I last wrote for the 'Farmer's Advocate' until this evening, when I consulted my notes. Time at this season of the year passes very rapidly for newspaper men—meetings of all kinds are so numerous, and we are fairly in the middle of the fat stock show season. The same condition of things doubtless prevails on the Canadian side. There is a general disposition after the beginning of December to have a round-up of the whole season, and at postprandial functions the oratory usually takes the form of a modified stock-taking. This afternoon I have been in Perth, attending the annual dinner of the Perthshire Agricultural Society. One of the speakers was the Hon. A. D. Murray, a younger brother of the Earl of Mansfield, who was in the chair. He took a somewhat roseate view of the agricultural situation as the year closes, and in this respect was rather an exception to the ordinary farming orator. The potato merchants have awoken from their stupor, and are actually asking the price of potatoes. Grain is moving upwards, and the open winter hitherto enjoyed, with the exception of a short spell of very cold weather, has led to a saving of the turnips, so that quite an improved tone prevails amongst some farmers. The general round-up for the year will not be so satisfactory, and the chairman hit off the situation very well by saying that the keynote of the farmers' lot was "Hope." He lived on this and traded with it as his best capital.

The staple theme at the average agricultural gathering these times is the scarcity of labor and

four preceding provincial events are over. These are held at Norwich, Birmingham, Inverness, and Edinburgh. The champion at the first was a great cross-bred steer, bred in Cumberland, and having a good share of Shorthorn blood in his veins, with the Galloway as the mating blood. He was defeated at Birmingham by Lord Strathmore's A.-A. heifer, Brunhilde, a marvellous beauty, and likely to be near the winning place at Smithfield. His Lordship has swept everything before him more than once or twice at Birmingham, and always with A.-A. heifers. Some are inclined to cavil at this, and no doubt there is a point in the fact that the polled breed has won much greater distinction by its heifers than by its steers; indeed, very few A.-A. champions have been steers. The patrons of the breed of course maintain that this is due to the great demand for black bulls, and they are fully justified in urging that reason. Still it hardly admits of question that it is easier to make a champion out of an A.-A. heifer than out of any other breed or sex. The symmetry of these heifers and the way they lay on flesh are marvellous.

At Inverness the championship went to the Shorthorn heifer, Gertrude II., which secured the championship in the fat class at the Highland Society's Show at Inverness in July. She is a beauty, bred and owned by Mr. John Ross, Meikle Tarrol, Fearn, Ross-shire, who has acquired enviable distinction as a breeder and feeder of fat stock. He is easily first in this department amongst Scottish or English farmers. His chief success was secured with the produce of a Duthie Shorthorn bull named Ringleader, which when put to black polled cross cows—that is, cows whose

sires were A.-A. bulls, and their dams ordinary cows of the Shorthorn dairy type—left stock almost unequalled for symmetry and adaptability to lay on flesh. The reserve champion at Norwich was a cross heifer bred by Mr. Ross, named Madaline, and several of his breeding took high honors at Edinburgh. The Inverness champion is, however, not a cross-bred, but a standard-bred Shorthorn, and her symmetry is marvellous. Her chief opponent at Inverness was a great, massive black cross steer, bred and owned by J. Douglas Fletcher, of Rosehaugh, and named Sinbad. This animal is a wonderful illustration of early maturity. He was got by an A.-A. bull, but for once the black polled has failed to knock off the horns. As a butcher's animal he is about right, and although at Inverness two breeders, Mr. Duthie, of Shorthorn fame, and Mr. George



GOLD MEDAL (11057) 10192.
Clydesdale stallion, three years old, winner of second prize, International Show, Chicago, 1901.
OWNED BY ALEX. GALBRAITH, JANESVILLE, WISCONSIN.

rural depopulation. A steadying influence has been imported into the discussion of this question in an address delivered by Professor Shields Nicholson, of Edinburgh. His special department is social economy, and he has been looking into the history of the relations between labor and population, with the result that he does not regard the present situation as unprecedented. The drift of population from the country to the towns has been a feature of social life for many centuries, and the great cause is the higher rates of wages almost invariably paid in the towns. It is impossible that there should be other than this drain, because the rural districts could not find employment for their population. At present, the situation seems accentuated, because of special circumstances. There are difficulties in the way of providing suitable cottage accommodation in many districts, and this, in many cases, can only be got over by a system of loans by government, as many landlords have no means of putting up the necessary buildings. There are districts in which the scarcity of householders, rather than the scarcity of houses, impresses one, but such cases are not the rule. Few leave the country for the town willingly. As a rule, the cause of emigration is the lack of houses, and these can only be obtained when the landlord is not penniless, as, unfortunately, too many proprietors are. The work of agriculture here is fostered by the retention in the rural districts of the virtuous populace eulogized by Robert Burns in his most worthy poem.

The great fat stock show of the Smithfield Club in London has yet to come off, but the

J. Walker, Postlethen, a favorite judge of A.-A. cattle, had no difficulty at all in placing the heifer first, the six judges at Edinburgh, amongst whom were two butchers, hopelessly differed, three taking the heifer and three the steer. In the end the umpire, Mr. David Tod, a famous cattle salesman, gave the supreme honor to the black cross ox, Sinbad. The award was adversely criticised, but there is much to be said for it as a standard in practical trading. The heifer, Gertrude II., is perhaps the sweetest and most uniform and symmetrical specimen of the breed seen for a long time. She was out-and-out the breeder's fancy, but a fat stock show is not quite a breeder's function.

I have left myself no room for horse notes this time, but will promise a horse chat in my next letter.

"SCOTLAND YET."

And His Father Before Him.

"As near as I can remember, it is 25 years since I first began reading the 'Farmer's Advocate,' and I heartily agree with all the testimonials I read continually in its praise. I think my father was a subscriber from when it was first published. Wishing you the greatest success and the compliments of the season.

WM. C. GARDINER."

"I take several papers, but the 'Farmer's Advocate' is always read first; in fact, we could not do without it very well."—Geo. N. Gerrow.

The Northwest (Canada) Entomological Society.

(Continued from page 732, December 5, 1901, issue.)

NOTICEABLE INSECTS OF 1901.

Undoubtedly the most conspicuous feature of the year throughout the whole of Central and Northern Alberta, from Olds to Edmonton and east into parts of Saskatchewan, has been the myriads of dragon-flies. In the early part of the year we were threatened with an unusual plague of mosquitoes. The flooded sloughs teemed with their larvae, but very soon after the appearance of the perfect mosquito the dragon-flies came on the scene, and during July and early August immense numbers filled the country and in many parts (noticeably in the Red Deer and Lacombe districts) they literally exterminated the mosquito on the wing. Nothing but good has ever been recorded of the dragon-fly; in fact, their mouths are not adapted for eating vegetation, and their larvae and pupae live wholly in water, and in both stages are active, their food being larvae of mosquitos and other soft-bodied aquatic insects.

Of a different nature, and the remarkable occurrence of the season throughout the Territories from far south of Calgary and reported by Mr. T. N. Willing, Mr. F. H. Wolley-Dod and residents in Prince Albert, Grenfell and elsewhere, has been the very large numbers of caterpillars of the Painted Lady butterfly (*P. cardia*). The favorite food of these caterpillars is thistle (including, let us be thankful, the Canada thistle), blue bur and pasture sage.

Warbles this spring were decidedly more abundant than last year. The deaths of a good many cattle in the early part of the year were, I believe, accelerated, if not directly caused by this pest. On one carcass I counted 175 distinct warbles.

The horse bot fly has also been very troublesome. I might suggest here the trial of a simple remedy for this which was published some time ago by the United States Department of Agriculture: Bruise some tansy and make an infusion of the juice—i. e., tansy tea. Give the horse some of this tea in the morning and a dose of salts in the evening, and a complete cure will, it is said, be effected. The tea kills the bots.

The diamond-back moth (*Plutella cruciferorum*) has been again very abundant in all parts of the Territories, seriously damaging many turnip and cabbage crops. From the presence of parasites in considerable numbers last year, there were hopes that this pest would not be troublesome this year, but every turnip and cabbage field neglected becomes a simple breeding-ground for this insect.

Some turnip and cabbage crops in the vicinity of Lacombe also suffered from the red turnip-beetle (*E. adonidis*). In certain instances the beetle and its larvae consumed the plants completely to the ground, leaving no trace even of the stems. This beetle is reported also from many other parts of the Territories, and is a wide-spread pest.

The Colorado potato-bug (*D. decemlineata*) is gaining headway. They are reported from Calgary, Macleod, Pincher Creek, Walsh, Moose Jaw, and other points. The winters are not fatal to this pest, which passes that season compositely in the pupa state.

Another pest of the potato field more troublesome this year than usual is the wireworm—chiefly (so far as I have observed) the larvae of the "daddy long-legs" or crane fly (*Tipula*). It was a common thing to find 10 to 25 per cent. of the potatoes affected by this worm. Reports of its prevalence come from all parts of the Territories.

Damage by root maggots of various kinds has also been conspicuous this year. I have noticed it in my own district, and it is reported from several other parts of the Territories as far as St. Louis (Saskatchewan), and cauliflowers, cabbages and turnips were all about equally the sufferers. The growers of these vegetables seem to have some difficulty in coping with this pest. Mr. T. N. Willing reports the larvae of the cabbage butterfly (*P. protodice*) as having been rather abundant in gardens around Regina, and here and there the little, active turnip flea-beetle (*H. striolata*) has been destructive to young turnips.

Of foliage trees, Mr. Willing mentions tent caterpillars of both species (*C. americana* and *C. distria*) as having been abundant in Assiniboia, and I observed a considerable number of the latter variety on aspen poplar in the Red Deer district. I found many were parasitized by tachina flies, and I hardly think trouble will be given by this pest for a while. Aspen poplar also suffered in early spring from the pallid aspen beetle (*G. pallida*); and the disagreeable larvae of the striped cottonwood beetle (*L. scripta*), the pest of osier-growers, again attacked willows on river banks, and in Regina box elders suffered from the box-elder bug.

Of fruit trees, the black currant in gardens around Regina is reported to have suffered from the "currant worm."

Cutworms, which must not be confounded with wireworms (from which they are in every way

distinct), have again given considerable trouble throughout the Territories.

With regard to grain, there have been several complaints of injury to the young plant in first blade, the blade wilting away. In two cases (both of oat crops) which I went to see, the damage was the work of a wireworm of the same genus (*Tipula*) as that affecting the potatoes, though a different species. Mr. Willing mentions some talk by farmers of wheat being slightly damaged by an insect, but a report of a more serious nature St. Louis (Sask.), where rye suffered apparently from a stem midge larva, which fed within the stem about 1 to 2 feet above ground and deadened the straw before the heads filled. Several farms, it was said, bore evidence of the presence of this pest, the heads and straw turning white and dead six weeks before harvest.

A few words more and I will close the list. I made some mention last year of the liability to which we in a new country were always subject, to the arrival of new pests. There are this year two absolutely fresh pests to be reported, both of them beetles. One (*T. attenuata*) I have found in large numbers on raspberry canes, and the other (*D. testacea*) on French beans and other garden stuff.

With regard to remedies (as I have taken up so much space already), I will, if the papers will lend me a column, publish in detail the remedies recommended for each pest early next spring.

How to Farm in Manitoba.

BY S. A. BEDFORD, SUPT. EXP. FARM, BRANDON.

To the Editor "Farmer's Advocate":

The immigration to this Province has been very large during the past year, and is likely to continue for some time. Very few of these new farmers have a knowledge of prairie farming, and it has been intimated that a few suggestions from one of the earliest settlers might prove useful to the newcomer. The majority of immigrants, especially from Great Britain, have free homesteading in view. This, however, may not be the better plan, especially if the newcomer has a practical knowledge of farming land and also desires that there should be no break in the education of his family. For such persons there are many opportunities for the purchasing of railroad land or the leasing of improved farms for either a cash rental or on the basis of a percentage of the year's produce.

THE SELECTION OF A FARM.

As success depends largely on the character of the homestead, very great care should be exercised in its selection. It should be borne in mind that the farm is likely to be the abiding place for the settler and his family for many years, and for that reason its selection is of far greater importance than a mere investment of capital. He should hesitate to settle even on a good farm if the soil in the surrounding district is poor. A thriftless and sparsely-settled neighborhood retards the introduction of railroads, the development of towns, hinders the establishment of churches and schools, and prevents even a good farm from improving in value.

The soil on an ideal farm should consist mainly of a free-working loam, with abundance of humus (decayed vegetable matter) in its composition. This will make it to a large extent drought resisting, an important consideration where the rainfall during the growing season is often somewhat limited. Besides testing the soil by digging, the settler can form a very fair idea of the character of the soil by the vegetation growing on it. The following plants are generally found plentiful on good soil: Wolf willow, wild rose, and snow-berry. The small gray willow indicates moist to wet land, and the large gray willow living springs of water. When wild sage predominates, the soil is generally very sandy.

To secure satisfactory drainage, the character of the farm should be more or less undulating, and if the swells are fairly gradual it will greatly facilitate cultivation with modern machinery.

An abundant supply of water is one of the most important requirements, and this should be located even before the building site is selected.

At one time a natural hay meadow was considered essential to even a grain farm, but since it has been found possible to grow abundance of cultivated grasses, the hay meadow can be dispensed with.

Close proximity to timber is an advantage, especially if sufficiently large for building purposes as well as suitable for fuel, but no one should overlook serious defects in the soil or drainage for the sake of timber. Good drainage and a superior soil are seldom associated with an abundant supply of timber.

The newcomer is naturally anxious to secure a free homestead in close proximity to a railroad, but this is seldom possible. He can, however, rest assured that any considerable area of good land will sooner or later command a railway, and by the time he has produced sufficient for export a railway will be within a reasonable distance. As a rule, the immigrant from across the ocean is desirous of locating in colonies composed

exclusively of their own countrymen. While the feeling is natural, and has some advantages to recommend it, these are more than counter-balanced by the disadvantages. Large colonies composed exclusively of one nationality have a tendency to stagnate and prove unprogressive. Association with settlers from other countries acts as a stimulant, and a mixed settlement with a fair sprinkling of settlers conversant with prairie farming will always prove the most prosperous. In a new country all are friendly, and advice is readily sought and cheerfully given.

The Winter Fair Dairy Test.

The competition in this class at the Guelph show last month was larger this year than usual. Though no phenomenal records were made, yet there were about thirty heavy milking cows forward, the breeds represented being Shorthorns, Ayrshires, Holsteins, and grade. Utopia, a Short-horn-Jersey grade, shown by A. McDougal, Guelph, was the sweepstakes cow of the year, giving 106.3 lbs. milk in the two days of the test and making 127.42 points, judging being done on the following scale: 20 points for each pound of fat, 4 points for each pound of solids not fat, 1 point for each ten days in milk after the first thirty days (limit, 10 points), rations fed not considered. Shorthorns were represented by seven cows and three heifers under 36 months old, and were a really good lot of dual-purpose animals, the first award in cows going to Bonnie Doon, 4 years and 6 months old, owned by L. D. Currie, Hillsburg, who made 113.16 points; second by Irish Ivy, owned by A. W. Smith, Maple Lodge, 3 years and 4 months old, and who made 112.64 points, a remarkably good record, considering her age and that she suffered slightly from indigestion during the test. The third-prize cow, Indian Rose, shown by Jas. Brown, Norval, made a magnificent showing of udder and dairy form, and would doubtless have made a splendid record had she not been knocked out by over-feeding, which brought on indigestion and scouring, which seriously reduced her milk flow. Holsteins were represented by four cows and six heifers. Winnie Win, 6 years and 9 months old, shown by Geo. Rice, Currie's Crossing, gave 119.4 lbs. milk, the highest milk record in the show, and made 125.50 points, winning first in her class, second prize going to Queen De Kol 2nd, 6 years and 6 months, owned by G. W. Clemons, St. George. In the heifer section of this breed, Geo. Rice's Pauline Pietertje Clothilde, 3 years and 1 month, led with 92.8 lbs. milk and 104.3 points; Jas. Rettie's Marcena 3rd and Cornelia Schuiling, aged 2 years and 4 months and 2 years and 3 months, respectively, taking second and third places, the former with 102.98 points to her credit and the latter with 97.36 points.

In Ayrshires, five cows and five heifers were tested. Annette, 8 years and 3 months old, owned by W. M. Smith, Scotland, Ont., won first in the cow section, with 79.1 lbs. milk and 113.44 points to her credit. Nellie Grey, 10 years old, exhibited by N. Dymont, Clappison, was second, with 108.56 points, and Annie Laurie, shown by H. & J. McKie, Norwich, third, with 104.92 points.

The grade cow, Utopia, winner of the sweepstakes over all breeds, was the only cow shown in the grade class. Of the heifers shown in this class, Ayrshire Nellie, a grade Ayrshire, 2 years old, sired by Neidpath Jock, owned by Jas. McCormick, Rockton, won first prize, giving 68.2 pounds of milk in the two days.

The Lights of Canada.

To the Editor "Farmer's Advocate":

The lights of Canada are growing dimmer. What are we to do? The towns and cities put in electric plants, and all within reach patronize them. But we—us farmers, "the flowers of Canada," the feeders of the world—are we to be left in darkness? Are we to lose the enjoyment of these long winter evenings because of light—or, rather, the lack of it? No! We must make an amendment.

At the present time the question of "light" is puzzling many great heads. But who are they? Where are they? Mostly city gentlemen, and, no doubt, some of the cleverest in the land. But they forget the fact that "necessity is the mother of invention"; and what necessity have they for better light while sitting under the electric glow? Therefore, I maintain that "light" is a question for the farmers and the farmers' journals to settle.

As the Standard Oil Company has the control of the coal-oil trade, we cannot longer look to that source for light. So I think that carbide will prove the next best thing. It gives, I think, a better light and is as cheap, provided we had a cheap way of making it. To buy a plant would cost from \$25 up; but cannot some of your readers design one that could be home-made at a trifling cost? However, care should be taken in experimenting to prevent explosions. I think that a discussion of this nature would prove interesting to all, and especially to "CARBIDE."

Appreciation.

The many spontaneous expressions of appreciation of the handsome Christmas number of the *Farmer's Advocate* for 1901, as well as of its regular issues, received at the office of publication from readers throughout its wide constituency, are exceedingly gratifying to the staff, serving to stimulate and encourage all concerned in its production to renewed effort to excel in placing in the hands of its patrons a paper calculated to be useful and helpful to the farmer and his family in all the relations of business and social life. The best possible work of such a journal can only be accomplished by and through the maintenance of mutual sympathy and confidence between writers and readers. That this feeling exists to a very satisfactory extent we are unmistakably assured by warmly-worded letters in nearly every mail received at the office, and it is the purpose of the publishers to spare no pains or reasonable expense to make the paper still better in every department and to deserve the continued confidence and commendation of its readers. In order to the accomplishment of this end the hearty co-operation of its patrons is necessary, and we invite this, not only in extending its circulation and thus its sphere of usefulness, but by contributing helpful information as the result of experience or by asking for information on points that are found to be perplexing, that we may, from personal knowledge or by consulting expert authorities, if possible supply the light that is needed. Our aim is to make the paper thoroughly practical, and while giving to our theories a fair consideration, to avoid advocating their adoption until they have been found by repeated experiments to be reliable and trustworthy. The aim is to make the paper a safe guide and at the same time, to safeguard the interests of the great industry which it is our province to promote.

Early Maturity and Live Weight.

The returns of the weights and ages of the prize-winners in the various classes at the Norwich Fat Stock Show last month furnish the most interesting and instructive reading. The prize-winners in the several classes varied considerably in regard to their rate of meat production. In every case, of course, the younger the animals were the higher was the average daily gain in flesh shown by them. This was well illustrated in the first class, that for Red Polls under two years of age. In this class the best performer was a steer which scaled 1,179 lbs. at the age of 225 days, and thus showed a daily increase in weight of 2.24, or practically 2 1/4 lbs.—a very good performance, and one that shows that Red Polls possess considerable claim to recognition as best producers. In the corresponding class for Southdowns the winner turned up in a heifer which at the age of 668 days scaled 1,568 lbs., and thus showed a daily gain of 2.34 lbs., a little over 2 1/2 lbs. per day. As is usually the case, however, the distinction of making the greatest advance of any of the animals in the show fell to a cross-bred beast—on this occasion an Aberdeen-Angus-Shorthorn cross. This exhibit was the property of Miss A de Rothschild, and at the age of 560 days it scaled 1,447 lbs., and thus showed a net increase in weight of 2.52 lbs. per day. Another animal of the same cross, but 40 days younger and belonging to the same exhibitor, got second in this class, and had to his credit a daily increase of 2.50 lbs. The champion of the show, a blue-gray cross (got by a Short-horn bull out of a Galloway cow), was three months and ten months or 1,370 days old, and as its weight was 2,264 lbs., or just a stone over a ton, his net daily increase worked out to 1.65

The appended table gives the ages, weights, and daily increases of the first-prize takers in the principal classes at the show:

	Age, Days.	Weight, Lbs.	Average daily gain, Lbs.
Red Polls			
Steers under 2 years old	675	1,265	1.78
Steers over 2 and under 3 years	912	1,787	1.93
Cows or heifer under 4 years	986	1,459	1.42
Southdowns			
Steers over 2 and under 3 years	1,063	2,078	1.95
Cows or heifer under 4 years	668	1,568	2.34
Cross Breeds EXCLUDING RED POLLED			
Steers under 2 years old	568	1,417	2.51
Steers over 2 years	698	1,488	2.13
Blue-gray			
Steers over 2 and under 3 years	1,077	1,901	1.82
Steers over 3 and under 4 years	1,368	2,300	1.65

—Farmer's Gazette.

Subject to restrictions as to height, etc., English farmers find it more profitable to breed horses for other markets than the army.

Army Horses.

A great deal has been said and written about remounts since the Imperial Government commenced purchasing Canadian horses for that purpose. The purchase of these horses and the fact that they have proved serviceable in South Africa has been and is cited as a great boon to Canadian breeders, as it is probable more will be required. It certainly has been a boon in so far as it has given an opportunity for horse owners to dispose of, at a fair price, a large number of horses that are not valuable for other purposes—horses that are not representative of any recognized class, and for which there is, under ordinary conditions, little demand; still, animals that are serviceable for certain purposes. The danger that may be apprehended is that farmers will commence breeding this type of animal. Thoroughbred stallions have been imported into Canada for the express purpose of siring remounts. We are advised by those who should know, to breed to this class of stallion, and the Government is contemplating the establishment of purchasing stations. Yet, when in answer to an advertisement, a person brings a good half or three-quarter bred animal to a purchasing agent, he is told that he is not what is wanted. If he be a good representative of his class, he is too high and too spirited, and if he be within the limit in height, he is too fine, with too light bone and deficient in substance, and again too spirited. When we think a moment of the horses that have been bought by these Imperial officers or their agents, we will find that very few half-breds are

Thoroughbred sire to produce remounts and then to look around and see the horses that are purchased for that purpose. It would be very unwise for breeders to endeavor to produce such animals. They may be just what is wanted for the present South African war, but in all probability this war will be ended years before the present or future crop of colts will be fit for service, and if England should be unfortunate enough to be at war with another nation by that time it is probable another class of horse will be required to suit the peculiarities of the country, and then where will we find purchasers for our little cold-blooded fellows? Again, even though there were reasonable certainty of the present market being permanent, it will not pay the breeder to produce this horse; he had better breed a higher-classed and higher-priced animal. As already stated, the top price paid is \$150, while it costs no more to raise one that at a salable age will be worth \$50 to \$100 more. If while endeavoring to breed a high-class animal the breeder produced a misfit, why sell him as a remount. Breed as the Imperial officers advise, viz., for saddle purposes; patronize the good, big, good-mannered Thoroughbred sire, but do not try to breed the type of animal that they are purchasing. "WHIP."

The Block Test.

(From our Ontario and Eastern Edition.)

That the slaughter test is the logical and proper accompaniment of the Fat Stock Show will be readily admitted. By this means alone can the quality of the flesh of the animals be determined. Men may flatter themselves that by handling the live animal they can judge with accuracy what will be the character of the dressed carcass, but experience has proven that not infrequently even experts are mistaken in their estimate. This was well illustrated at the Chicago International Show in 1900, when the sweepstakes steer in one of the classes, apparently a model butcher's beast, firm-handling, and likely to kill with little offal, furnished a carcass so abnormally full of tallow and fat as to be heavily discounted in the block test. The same result, or a largely similar one, was seen in the killing test at the late Chicago Show. The adage that exceptions only prove the rule, a convenient excuse in many an emergency, may apply reasonably well in this case, and it should be freely admitted that the experience of a practical butcher, who buys and kills his cattle and is not a mere purveyor or dealer in dressed meat, enables him as a rule to form a fairly accurate estimate of what the outcome will be. But this does not, and we believe never will, convince breeders and feeders that butchers are the ideal judges of fat stock on foot, for the reason that they have not in mind or do not fully understand or appreciate the type which the breeder and feeder knows from observation and experience is most profitable to him owing to its kindly feeding qualities, making the best return for the food



BURNBRAE 2707, 8378.
Clydesdale stallion, six years old, winner of first prize and championship, Pan-American Exhibition, 1901.
OWNED BY GRAHAM BROS., CLAREMONT, ONTARIO.

among them, and those that are might be called misfits. Let us for a moment consider the type of horse that is wanted. They advertise for sound horses, from 14 1/2 to 15 1/2 hands. Then we notice that any horse of the quality, style and action that is usually considered necessary in a saddle horse is rejected, while the little, cold-blooded fellows with none of these attributes are purchased. Then, again, the prices given are too low to induce a person who has a good horse to sell, as he can get more money in other markets. The highest price given by the Government is \$150, and as the animals usually pass through the hands of two or more sub-agents, each of which must have his profit, the breeder must of necessity sell for much less, usually from \$80 to \$100, seldom more. These agents probably purchased a larger proportion (according to population) of horses in Prince Edward Island than in any other Province of the Dominion. It was my privilege to be in Charlottetown, P. E. I., in September last, when two Imperial officers were there purchasing. I may state that there has not been a Thoroughbred animal, either sire or dam, on the Island for the last two or three decades. The horses that were bought, while doubtless just what are required for the purpose, were animals that no person would think of buying for saddle purposes under ordinary circumstances, and certainly they do not in the slightest degree resemble the produce of the Thoroughbred. They were mostly all sired by trotting-bred stallions, out of ordinary cold-blooded mares. It certainly is confusing to the breeder to be told to patronize the

consumed. For this reason the directors of the Winter Fair have wisely avoided handing the judging of the live animals over to butchers, but have planned to have the awards made by an experienced breeder when a single judge is chosen, and by a breeder and a buyer or export shipper when two are preferred.

The experience of the Ontario Winter Fair has taught that for sound educational effect it is also unsafe to commit the judging of the dressed carcasses to butchers who cater only to a local trade and naturally give preference to the carcass that will cut up with most profit to themselves for their home trade, without any regard to the interests of the producer or to the fact that the stock shown at these fairs is meant for the Christmas trade. The object of the show, as we understand it, is not the advantage of the local butcher, but of the feeder, and the meeting of the demand of the best-paying markets. A well-fed scrub, or possibly a half-fed one, may fill the bill for the home town trade, and we have dead loads of that kind in the country (like the poor, they are always with us), and they are evidently the only kind the average town butcher buys, judging from the beef generally found on hotel tables and in meat shops in Canada, which usually grades "number one hard," but we do not want and cannot afford to have our fat-stock shows used for the encouragement of the production of that sort of stock, and to set the seal of the institution upon such products as these as being the ideal quality, nor to have Farmers' Institute teachers go out from this Normal School imbued

with the idea, as some of them appeared to be at the Guelph meeting, that our beef cattle must of necessity assume the type of the bacon hog.

For our own part we do not expect to see the Fat Stock Show soon, if ever, so perfected that the same animals will invariably win both alive and dead, but we believe it is possible, by securing judges who are engaged in catering to our broadest and best markets, to come reasonably near to this result, especially if, as we believe there should be, separate or special classes are opened and liberally encouraged for animals of suitable quality and condition for the export trade. This need not and, we are persuaded, should not diminish nor minimize the offering of prizes for the highest types of the breeder's and feeder's art in each breed and in grades and crosses, and also in a class open to all comers, and we are not unwilling to believe that even in a carcass competition, with intelligent and skilful feeding and with competent judging in each class by men having the broader experience and outlook, the breeder's and feeder's ideal animal may yet win, for who will undertake to say that the grand sweepstakes-winning steer at the late show at Guelph, had he been killed, would not have dressed a profitable and desirable carcass? There was not a suspicion of surplus fat about him, but his was a model form, smoothly covered with mellow-handling flesh, and the prize in the champion competition did not go to the fattest animal by any means, because the judges knew their business and viewed the case from the proper standpoint—that of the export trade, which pays the best prices. Who does not believe that a stable full of steers of the quality and character of the champion would sell quickly to an export shipper or to a dealer catering to that trade for a cent and a half a pound, live weight, more than one of the stamp of the first-prize steer in the carcass competition at Guelph? This means a difference of over \$20 a head in the price of cattle of equal weight, while it would require an additional year's feeding to bring the animal of inferior type up to the equal weight.

The lessons to be learned from the late show are that feeders must pay more attention to the exercise of the animals, and to feeding mixed rations calculated to produce flesh rather than fat; that the management should secure as judges for the carcass competitions experts from prominent packing establishments or from among men who have had opportunities of studying the needs of the leading markets. Parts of the carcass must also be cut up in order to afford a fair opportunity of determining their relative quality. Had this reasonable proposition been adopted at Guelph, the carcass rating might have been different, and had the judges of carcasses seen the animals alive as well as dressed, it is also probable that the result would have been different, and to our mind that they should see them under both conditions would be a rational arrangement, one by which the necessity for making some labored explanations might be avoided and the lecturers saved from the distress of seeing the shocking example of a living animal they had held up to the gaze of the assembled multitude as an object lesson on the type to be avoided and discarded by the feeder, a little later labelled as the ideal carcass by the final court, and their pet theories on regulation rations for producing prime bacon rudely shaken by the announcement that the beast whose body was awarded premier place had got his living largely from slaughter-house offal.

A Magnificent Production.

Sir.—I write to ask you if it would be possible for me to get two extra copies of your Christmas number. I was greatly delighted with this issue of your paper, and consider it one of the best things of its kind that has ever been gotten up. The pictures are really magnificent reproductions, besides being of an intensely practical nature. The excellent reproduction of the photo of King Edward which appears on your cover page, together with the charming write-up of the royal farms and herds, cannot but be of great interest to all stockmen, whether they be British or American citizens. If a few more of the great rulers of this world would show the interest in farming and the stock business that has been displayed by the sovereigns of England, stockmen the world over would not have to inquire why it is that all of the improved breeds of cattle, sheep, swine, and horses, with but very few exceptions, have been developed in Great Britain. Who can estimate the wonderful influence on the young men who are subjects of King Edward when they appreciate the high standing which his herds have always taken in the leading exhibitions of high-class stock on both continents? What wonder is it that of the herdsmen and feeders at the recent International Live Stock Show in Chicago, the greatest exposition of its kind in the world, nine-tenths of them were British-born subjects or had received their training from fathers who were proud to be known as such.

W. L. CARLYLE,

Professor of Animal Husbandry,
Wisconsin University, Madison, Dec. 24th, 1901.

The Smithfield Show.

TRIUMPHANT VICTORY OF ABERDEEN-ANGUS CATTLE, ALIVE AND DRESSED.

(Special correspondence.)

Writing at the close of Smithfield week, only one theme is possible—the triumphant ascendancy of Aberdeen-Angus cattle and their crosses over all other British breeds at the fat-stock shows this season. The Smithfield Club Show is the great winter round-up, and the victory of the polled black breeds was indisputable. The judging at Smithfield is done by a carefully-selected bench of one expert to each breed, a system which conduces to celerity in business and uniformity in awards. The championships are also judged singly, and this year the task in the cattle section devolved on Mr. J. P. Terry, Berryfield, Aylesbury, a gentleman who commands respect and has certainly no breed prejudices. His final selections for the champion honors were an Aberdeen-Angus steer and heifer, a Galloway heifer, and a cross-bred heifer, three parts Aberdeen-Angus. All four were black and polled, and were universally admired by the crowd which thronged the rings and galleries. The final order of the four was (1) the A.-A. heifer, (2) the cross-bred heifer, (3) the A.-A. steer, and (4) the Galloway heifer. The A.-A. heifer was Brunhilde, bred and owned by the Earl of Strathmore and Kinghorn, Glamis Castle, Forfar. She weighed 1,806 lbs. at 933 days, and was champion at Birmingham as well. Although, according to the rules of the Smithfield Club, the Earl is regarded as the breeder of the heifer, she was only calved in his possession. Her dam, Battle, was purchased for the Earl of Strathmore at a sale held by Sir James Duke, Bart., at Laughton, Ringmer, Sussex, the cow being then in calf with Brunhilde. Her sire was Jolly Rover 7633, Sir James Duke's herd bull, and the correct statement about her breeding would be: Mating breeder, Sir James Duke, Bart.; calving breeder, the Earl of Strathmore. This is the sixth occasion on which the Earl has carried off the honors for the best female at the Smithfield Club Show, and the second occasion on which he has won outright the challenge cup. His Lordship's herd at Glamis Castle, in Forfarshire, is one of the best in Scotland, and it is splendidly managed by his factor, Mr. Andrew Ralston; the land steward, Mr. Harry Lindsay, and the cattleman, John Grant, who knows his business, and keeps close to it.

The cross-bred heifer, Madaline, was bred by Mr. John Ross, Meikle Tarrel, Fearn, N. B., and is owned by Mr. W. J. Learner, Wickmore, Norfolk, one of the great Norfolk feeders. She was champion at Norwich and reserve champion at Birmingham as well as at London, and has taken very strongly to the A.-A. type. Her gait is defective, and, indeed, as against Brunhilde on this account she had no chance. She is well finished and a marvel of the feeder's art at her age. She beat all the cross-bred cattle of either sex at London, and only went down when Brunhilde took up the battle. The third best animal in the show was the champion steer exhibited, Cock o' the North, also an Aberdeen-Angus, and shown in great bloom, but not so firm in flesh as either of the heifers. At 2 years 10 months 2 weeks 4 days he weighed 17 c. 3 qrs. 14 lbs., or 2,002 lbs. He was bred by Mr. John Hunter, Dipple, Fochabers, N. B., and his owner is Mr. T. T. Cridlan, the member of a great firm of London West End butchers, who has a farm in Gloucestershire. For the first time in its history, the Galloway breed provided the fourth best animal in the show, viz., Messrs. Biggar & Sons' heifer, Maid of Honor, which, at 924 days, weighed 1,506 lbs. This heifer was bred by Messrs. Nivison, Lairdlaugh, Dalbeattie, and was brought out in great form by her owners, than whom there are no more enterprising and enthusiastic supporters of the Galloway breed. She is a marvel of symmetry and levelness, and may kill as well as any of the other blacks in front of her. The early maturing of Galloways has come to stay when an animal like Maid of Honor can be produced by the breed. Naturally, Scotsmen feel jubilant over these victories, but more remains to be said.

THE CARCASS COMPETITION started several years ago has proved one of the most educative forces in the showing world at present. For the first few years the A.-A. breeders and feeders made no very strong appearance in it, Galloways doing much better, and with Highlanders, Welsh, and some crosses carrying off the lion's share of the prizes. During the past two or three years the A.-A. men have entered an appearance in force, and this week the exhibits of His Majesty the King from Aberdeenshire, Ballater, Aberdeenshire, have won both the cham-

pionship and the reserve championship in competition with all breeds and crosses. These exhibits are, respectively, an A.-A. heifer and an A.-A. steer, both first in their classes, and very fine samples of marbled beef. The heifer's is an ideal carcass, and was greatly admired all round. This crowning victory fairly caps the week's proceedings, and so far as the Old Country is concerned places the A.-A. breed over all other breeds and crosses as first-class butcher's stuff. In the class for steers under two years old, a Welsh runt was first, an A.-A.-Hereford cross second, a Sussex third, a Galloway fourth, and a Shorthorn-A.-A. cross fifth. The Welsh runt was by far the heaviest. At 23 months old he gave a carcass of 914 lbs. In the class for steers over two and not over three years old, the winner was the King's A.-A. steer, the reserve champion. After him came a Shorthorn-A.-A. cross, then a Kerry, next a Galloway-Highland cross (which looked remarkably well on hoof), and fifth an A.-A.-Shorthorn cross. In the heifer class, the King's A.-A. champion led, her carcass weight at 2 years 8 months being 889 lbs. Second to her stood a Shorthorn-A.-A. cross; third, a Shorthorn-Kerry cross; fourth, an A.-A.-Hereford cross, and finally a Galloway-Shorthorn cross. It will thus be seen that, whether as regards live animals or carcasses, Scotland has done remarkably well in the beef classes at the Smithfield Club Show.

SHEEP.—So far as sheep and mutton are concerned, the same tale must be told. The judge for the long-wool championship was Mr. James Swan, well-known Scottish salesman, and he went for quality in mutton, with the result that the Scots breeds scored all along the line. The championship and reserve championship both went to Mr. John McDowall, of Girdstingwood, Kirkcudbright, his pen of Cheviot wethers taking the leading honors, and his pen of Blackface wethers the reserve. The Lincolns came next and had easily the better of both Scots pens in weights. They were only lambs, yet the three weighed 708 lbs., at 9 months old. Mr. McDowall's Cheviots weighed 831 lbs., at 19½ months, and his Blackfaces, at the same age, weighed 667 lbs. After the Lincolns came the English Leicesters, and then the Cotswolds, but for quality of mutton none of the breeds had any show at all against the Scots breeds. In the carcass competitions for sheep of all breeds and crosses there was keen competition and many entries. The championship here was decided by Mr. Cridlan, the London West End butcher, and he gave the premier award to Mr. Jamieson's Cheviot wether lamb from East Lothian. Its carcass weight was 90 lbs. The reserve champion carcass was a Suffolk-Blackface cross, which at 20½ months weighed 130 lbs. The second-prize carcass in the lamb class was a Suffolk-Greyface cross—that is, by a Suffolk sire from a ewe whose sire was a Border Leicester ram and her dam a Blackface ewe. This carcass weighed 88 lbs. A Suffolk-Cheviot cross wether, which stood fourth in the class, 20 months old, gave a carcass of 148 lbs. weight, and a similar cross winning fourth in the lamb class gave a carcass of 72 lbs. The Suffolks were first in both classes for short-wooled sheep, the first-prize lamb carcass weighing 88 lbs., and the first-prize hogg carcass (21 months old) 97 lbs. Suffolk mutton is very fine quality and full of lean meat. The breed was formed by crossing the old Norfolk horned ewe with the Southdown ram, and, except that the produce may be a little difficult to fatten, there can be no doubt that the Suffolk easily leads amongst English breeds as a butcher's sheep.

SCOTCH CLYDE GELDING WINNERS AT CHICAGO.—News of the victory of the Clydesdale geldings exhibited by Messrs. A. & W. Montgomery at the Chicago Exhibition was cabled in time to be made public to all and sundry at the Smithfield Show. Naturally, Scotsmen felt elated and the Messrs. Montgomery are to be congratulated on their pluck and enterprise. The horses shown were "picked" specimens, but had been doing their share of street and farm work before being shipped. They are big, powerful animals, and show the style and action which characterize the Clydesdale, along with his great weight and size. It is his style and action which makes the Clydesdale superior to the Shire. The latter has many points in which he is the equal of the Clydesdale, but along with these the Clydesdale has the advantage in gaiety and activity.

"SCOTLAND AGAIN."

As Viewed by an Old Journalist.

Dear Sir.—Your Christmas (1901) number is certainly "a thing of beauty," if not "a joy forever." As an old newspaper man, I am more than delighted with the fine artistic taste of the get-up and the splendid ability displayed in the contents. Your journal is a credit to our Dominion, and I could wish that it might be put into every farmer's home in the country. Wishing you continued success,
Yours, etc.,

(REV. DR.) D. L. McCRAE.

The Manse, Wilton Grove, Dec. 26, 1901.

Farmers and Their Mortgages.

Farmers, as well as others, should always remember that to one who has good security to offer it is easier to borrow than it is to pay back; and, as in Solomon's day, so now, to some extent at least, "The borrower is servant to the lender." Yet there are times when, and purposes for which, it is profitable to borrow; and then it is well for one to consider where to borrow and how.

It goes without saying that it is unwise to borrow to obtain luxuries, whether it be a piano, a carriage, a more expensive house than is necessary or any other thing that may be done without until the money is saved, not borrowed. And, again, when a man finds that he has been drifting and running further behind year by year, with no unusual circumstances to account or be blamed for such a state of affairs, and nothing to indicate that the future is going to differ from or be an improvement upon the past, he had better consider whether he should not sell all or part of his farm and adopt radical changes rather than to mortgage and continue to drift until all he has is swallowed up and gone.

Further, it may be laid down as an axiom, true as Euclid's, that it is never wise for a farmer to borrow to experiment or to speculate.

Whether a man may profitably borrow depends not only upon the object for which he borrows, but upon his business capacity. Some men will control a vicious horse, others will be controlled by the horse. In like manner, some men can control a mortgage, while others, under similar circumstances, are controlled by the mortgage. And often men with but little business ability, by sheer muscle-work and rigid economy, have achieved moderate success who would have been ruined had they mortgaged; while others, with greater business ability, would, with the same surroundings, have won still greater success by the aid of a mortgage loan.

Oftentimes a young man with good health, good habits, energy, and a practical knowledge of farming, and having saved a few hundred dollars, may very wisely borrow to purchase a farm. A man having owned and worked a farm quite large enough for him while his children were young, may often find it wise to borrow to purchase a neighboring farm when his boys become large enough and show themselves willing to help him. And sometimes a farmer may wisely, but cautiously, borrow to increase the earning power of his farm by the erection of better barns and stables or by draining or other like improvements.

Having decided to borrow, where, or from whom, shall the loan be obtained? Many persons prefer to borrow from a private party rather than from a loan company, and certainly there are often advantages in borrowing from a private party. Sometimes one gets a chance to obtain money from a private party at a lower rate of interest than companies charge. The costs of a private loan are usually lower, too, than the expenses of a loan from a company, and when one can hand his interest personally to the lender it saves the trouble and expense of remitting to a company. On the other hand, there are advantages in dealing with a loan company rather than a private person. Frequently their rates are lower than those asked by private individuals. Sometimes, too, private lenders are quiet as the grave as to their business transactions, while others frequently boast of their mortgage loans and of their claims on their neighbors' farms; and others again, from extreme caution, ask the advice of their neighbors either when making a loan or when the borrower asks a week or a month's extension of time for the payment of his interest, and so the borrower's business becomes common talk of the neighborhood. A loan company is ever silent and never gossips. And, again, a private party to whom interest is due upon a certain day frequently arranges to make some particular use of it upon that date, and is, therefore, unable to grant the borrower any extension of time, while a loan company, having good security, is always able, and nearly always willing, upon request, to wait a month or two after it is due for a payment of interest, if it will enable the borrower to market to better advantage his stock or produce, as is frequently the case. In the event of the death of a private lender, particularly if he has died without a will and there is delay in the appointment of an administrator, the borrower is sometimes at a loss to know to whom to make his payments, and has sometimes delay and trouble in obtaining a proper discharge of his mortgage when paid. These difficulties do not arise when dealing with a loan company. If a man borrows from a loan company for a term of years, and at the end of the term has not succeeded in paying off the whole debt, the company is usually, if not always, willing to renew for a further term at the then current rate of interest without charge or for a fee of two or three dollars. It is often cheaper to pay for a bank draft or express order to remit a payment to a loan company than to drive some miles to carry a payment to the lender. Circumstances, and a knowledge of the

parties, should in each case guide a man as to whether he will borrow from a private individual or a company, but it seldom pays to pay a private party any higher rate of interest than the money may be had for from a loan company. Amended laws and the competition that now exists in lending money has entirely done away with vexatious and exacting rules and fines that formerly attended loan company mortgages.

Having decided where to borrow, there are other matters to be considered. Most mortgagors stipulate to pay their interest once a year, but in many cases it would perhaps be better to pay



TURNING THE FIRST FURROW.
Farm of J. R. Parkington, Elm Valley, Reston, Man.

the interest half-yearly. In former days, when the farmer's whole income was derived from his grain crop, it was certainly more convenient to pay interest annually, but now that the dairy, the orchard, lambs, fat cattle, hogs, etc., contribute to his income, the money does not all come in at one time, and it is often easier to make up say \$50 twice a year than \$100 at once.

No matter at what time of year a farmer makes his mortgage, he can nearly always arrange to have his payment or payments become due at any time of year he may choose. It often makes quite a difference to the borrower and usually none to the lender.

It is usually a good thing, in his own interest, for the borrower to be obliged to repay a small instalment of principal annually. With such a provision in his mortgage, he will perhaps reduce the principal when otherwise he would not. It will also be an advantage to have the option of making larger annual repayments of principal if able; thus on a \$1,000 five-year loan to be obliged to repay say \$50 of principal yearly with the interest, with the privilege to increase any one or more of the annual payments of principal to any sum up to say \$200. Sometimes the borrower asks the privilege of repaying the whole principal at any time before due, but such a request is unreasonable and one-sided, and too much a case of "heads I win, tails you lose." In such case in the event of rates of interest rising, the lender could not call in his money to get better rates elsewhere, but should interest go down, the borrower would immediately borrow elsewhere and pay off.

In signing a mortgage, or, for that matter, any other paper, always read and understand it



A SCENE ON THE FARM OF T. JASPER, BRADWARDINE, MAN.

first, and sign it afterwards. A mortgage, unlike a man, or even a woman, always means what it says, and nothing that it contains, whether printed or written, is a "mere matter of form." And when you have signed your mortgage, remember that you have covenanted to "pay the mortgage money and interest," and that you have not only made the mortgaged property liable for the amount of the debt, but that you yourself are personally liable and may be sued upon a promissory note.

Don't entertain a mortgage on your farm one day longer than is necessary, and do not get into the "habit" of signing mortgages, as I have known some people to do. H. H. MULLER

Poultry Raising in the South.

"We are doing a very great deal for the negro," mused the Southern visitor, as he lit his cigar after dinner—"perhaps too much. For instance, a few years ago I was somewhat interested in poultry. I had a fine flock of fowls, but, try as I might, it seemed impossible to get ahead on it in numbers. We never had any of our own poultry on the table, and seldom an egg, since I ordered all the eggs set. In fact, I suppose my hens led the most sedentary life of any fowls ever in captivity. We used to steal the chickens away from them as soon as hatched and raise them by hand; as for the hens, we set 'em again. My hens got so they could scarcely walk, they sat so much. I think in time that I might have developed a breed of hens without any legs at all, and low and flat like a door-mat. I invented what I called the Atkinson Waffle-iron Sitting Hen's Nest, consisting of the ordinary nest, and over the back of the hen a receptacle like a thick soup-tureen cover, the under side of fine gauze and the top of thick, non-conductive material. In this I put thirteen eggs, and lowered it over the back of the hens, where it fitted perfectly, and the eggs above got as much warmth as those below. It was a great success, but still my flock of fowls barely held its own. I finally suspected my African fellow-citizens.

"I will say that we have a very good class of colored people in our city. They have been much improved morally, and are, I believe, generally honest. Their taste for fried chicken remains, however. My fowls were peculiarly marked as to their feathers, and one day I took a quiet turn through the neighborhood inhabited by the dusky brethren. I was pained to see large quantities of the plumage which had unmistakably once adorned my fowls in their back yards. I went home and ordered my man to lock up the coop at night. He did so, but the evaporation of poultry continued. I bought a watch-dog, but the chicken-collectors beat him, and stripped him of his collar, and left him for dead, though he still had life enough when I went out to see what the row was about to leap up and grab me by the leg. I had my man set a spring-gun. On the next bill from my family physician was this item: 'To picking 114 bird-shot out of hired man—\$25.' I broke up the sitting industry among my hens, closed the coop, and forced them to roost at night in a tall tree; but a few of them were missing every morning. I finally determined on the boldest plan ever conceived south of Mason and Dixon's line.

"This was nothing more or less than to send my chickens up every night in a balloon. I accordingly purchased a medium-sized balloon, and had it inflated from the gas-main. In the place of the basket I attached a wide rope-ladder, let the balloon up so this just cleared the ground, and my chickens readily went to roost on the rungs. I then paid out twelve hundred feet of line and fastened it to a post. In the morning we drew the balloon down and found the flock intact. I congratulated myself on having outwitted the colored man and brother at last. We repeated the operation every night for a week. I had taken the precaution to have my retaining line a small wire cable, so that it could not be cut. The second night we found an African trying to climb it. He had got up about seventy-five feet, but came down rapidly on my man appearing with a weapon. After this we greased

the cable, and had no more trouble in that way. Still, I keep no chickens now."

"Colonel," said the host, solemnly, "you won't mind, I hope, if I ask you why?"

"Certainly not. Everything went well for a week, and my hopes were high. I subscribed for another poultry paper and bought a dozen hand-painted china egg-cups. But at the end of that time a young son of Ham, just home

from some sort of school for the higher education of his race, put on a pair of rubber gloves at two o'clock in the morning, cut an arc-light wire in the street, dragged one end into my back yard, attached it to the wire cable of the balloon, and sent up a current of two thousand volts, which paralyzed every last fowl, and brought them fluttering down like autumn leaves, with two hundred darkies, sir, waiting for them! Now, what business has a ducky, I'd like to know, to understand anything about electricity?"—H. V. Marr, in Harper's Magazine.

"I like the Advocate and would like to hear of every farmer taking a subscription."—W. Shipp.

Improving the Ayrshire Breed.

BY ARCHIBALD MACNEILAGE, EDITOR OF "THE SCOTTISH FARMER."

This is an all-important question for Canadian dairy farmers. They have invested largely in Ayrshire cattle, and so far with general advantage to themselves; but they have occasionally "had their fingers burned," and paid big money for animals that were very unlike the man's daughter who "was better than she was bonnie." These particular animals would have been good enough had the Ayrshire not been wanted to yield milk. As ornamental pieces about a farmstead they might pass, but the man who took the risk of bringing them across the Atlantic had little for his pains. How these members of a dairy breed should to so large an extent have lost their dairying properties is a subject that will stand some debate, and it may be useful to ask whether there be anything in the early history of the breed to warrant the supposition that the Ayrshires should be deficient in milk yield? As an answer to this question it is well to remember that Ayrshires are of two kinds—the show type and the commercial type. Those who have been disappointed with their purchases have, as a rule, invested in the show animal: the failures have been amongst the high-priced animals which have been bought not because they had good records as milk-producers, but because they had won prizes. Had enquiry been made about milk-production, little accurate information could have been given, as very few Scotch dairy farmers keep records. In Wigtonshire, where the Ayrshire is seen to good advantage as a commercial animal, the existence of the creameries and purchase of milk by the creamery companies according to quality, has taught dairy farmers something about the butter-fat in the milk of an Ayrshire, but very few have any definite information to give concerning quantity. Another element in the case is the type of animal wanted. A comparison of photographs of the past and immediate present does not convince one that the show bull of the present is as robust and "framy" an animal as his predecessor. Whether he has been altered for the better or the worse during the past 50 or 60 years may legitimately form matter of debate.

The Ayrshire Agricultural Association has during its long career played a most important part in moulding the type of the Scottish dairy breed. There is before us a copy of its premium list for the year 1837, bearing the autograph of Mr. James Murray, Carston, and dated Ayr, 18th January, 1837. The Association is there styled the General Agricultural Association for Ayrshire, and the premiums offered include the prizes for live stock to be held "at the Great Show to take place at Maybole on the 1st day of June, 1837." The cattle classes are for the two breeds of Ayrshires and Galloways, both of which are described as "Dairy Stock." In the class for bulls not under three years old, the first prize is eight sovereigns, the second five sovereigns, and the third three sovereigns. For the best two-year-old bull, the first prize is six sovereigns, the second three, and the third two. There are three classes for cows—aged, three-year-olds, and two-year-olds; from which we infer that there is not likely to have then been much encouragement for bringing forward storks of both sexes in the fashion so familiar at the present time. In these circumstances the famous bulls whose names crop up in early records would not be forced like the youngsters of the present day. One of them, named "Geordie," whose portrait hangs in the Hall of the Highland and Agricultural Society, Edinburgh, appears to have been a more substantial animal than would find favor in show-yards now. He is said to have somewhat resembled the modern Hoyer-a-Blink in conformation, but was flecked (or red and white) in color. He was gay and masculine-like in appearance, but might have been deficient in depth of rib. He was a favorite breeding bull, in great request in North Ayrshire and the neighboring parishes in Renfrewshire, and gained first prize at the H. & A. S. Show at Inverness in 1839. It required no ordinary pluck to send a bull so far in those days. In 1810, Geordie was second at the Ayrshire show held at Girvan, and eventually passed into the island of Bute. In this part of Scotland some of the best Ayrshires may still be found. They have been kept singularly free from disease, and as a rule are of the larger framed,

good-milking strains. As an indication of the greater robustness and scale of these early bulls, reference may be made to a son of Geordie, known as the "Horny bull," which left a strong impression on the breed. He was used by all the leading breeders in the district of North Ayrshire, and amongst others by Mr. John Reid, Auchengown, Lochwinnoch, who patronized the best bulls the district could afford. The "Horny bull" was of the same color as the well-known Short-horn champion, "Sign of Riches"—red, with a white mark on his back—and was a very big and heavy bull. Mr. Reid had a stot stork by him which at six quarters old weighed 28 Ayrshire stones—672 lbs. beef. As his name indicates, he had a faulty horn, the fashion being in favor of the gay, upstanding horn, while his was inclined downward. He was a prizewinner locally, and bred good stock in every way, their vessels being correct and the frame and gaiety sufficient to carry them through in good company of any kind. Sons of his are known to have been used in various districts, and in particular one which was used successively in the herds of the Duke of Buccleuch in Dumfriesshire, who bought him from Mr. Bartholomew, Millbank, Lochwinnoch. After a time he came back to Ayrshire, and became the property of one of the great improvers of the breed, Mr. Parker, Broomlands, Irvine. This bull was in color dark red, with a white spot. He lived to a very old age, and bred big, roomy cows, with good vessels and teats, and good milkers. It was in connection with his stock that breeders began to pay great attention to the vessel and teats, and in the end the fancy for having the vessel tight and level and the teats perpendicular, and broad in the point, fostered the desire for small teats which as a rule were better planted. This fancy became a snare to breeders, as all the world knows.

One of the earliest fanciers of the breed—that is, one who made the show-yard a special feature in his breeding—was Mr. T. Paton, Swinlees, Dalry, in North Ayrshire. He liked an animal with great style about the head and horns, and to obtain this is usually credited with having introduced a cross of West Highland or Kyle blood. The Swinlees blood was largely used in the Broomlands herd, and along with the style of head and horn there came the distinctly Highland characteristic of the "clipped lug"—an ear about half as long as it ought to be, and shortened so that it seemed to have been clipped with a pair of scissors. These early sires were almost invariably red or brown in color, and some of them had dark-colored heads. "Tam of Dalrig," a bull bought by Mr. Ivie Campbell, from Mr. Allan, Flackstone, Dalry, about the year 1840, was a dark-colored bull, with white markings, and the dark-colored or almost black head which characterized the descendants of the Swinlees bull got by the Ayrshire of the period out of the West Highland black cow. This Swinlees bull was the sire of Tam, which consequently resembled his sire. Tam was first at Dalry, and other shows in Ayrshire, and in his old age developed a bit of temper. His outstanding characteristic was his size. He had great, branching horns, and left a numerous progeny of both sexes. All the leading bulls of about the years 1840-50 had this style of head and the red color, with black or almost black heads. At the Dumfries show of the Highland and Agricultural Society, held in 1845, three bulls of more than local reputation tried conclusions. The first was owned by Mr. George Lorimer, Rigg, Sanquhar, and was bred by Lawrence Drew (the elder), Carmyle, Tolleross. The dam of this bull was a cow named Meda, which Mr. Drew gave in a present to Mr. Lorimer. She won 13 first prizes, and her son was first at Cumnock and third at Ayr. He was a thick, square bull, with good horns, but deficient about the thighs. The second was known far and wide as Algie's bull. He was black in color, and was owned by Lawrence Drew. In 1846 he was second at the Ayrshire show at Girvan, being beaten by McGregor's bull, which was brown in color, with white spots. Algie's bull came from Glendrishag, Ballantrae. His chief defect was in formation of head, and he was only moderately successful as a sire. The third good bull at this show was owned by Mr. Hugh Kirkwood, Langmuir, Kilmours. He was bred by Mr. Young, Mainis, Kilmours, who had a superior dairy stock, to which all the show fanciers, including Mr. Parker, Broomlands, were indebted. The colors of these early bulls show clearly that the all-pervading white is a comparatively modern innovation, and is not at all an inherent characteristic of the breed. Prices also ruled high in the years from 1840-50, a sale of bull storks held by Mr. Morton, Townhead of Dumfries, in Kyle making up to £15 and £20 apiece. All of these were got by a second-prize bull at Ayr in 1817, whose color was red,

and his progeny continued to win for many a day, the females being good milkers, but not show cows. The first-prize bull at the H. & A. S. Show at Glasgow in 1850 was red and white in color, with horns rather low and outspreading, but he had grandly-sprung ribs, and was altogether of great substance.

At the show of the Ayrshire Association held in 1852, there were no fewer than 28 bulls shown in the class over three years old, and in 1854 the winner was "Major," one of the greatest bulls of the breed. He was bred and owned by Mr. Parker, was brindled in color, like his dam, and was thought to be rather feminine-like in character. His advent may be said to mark the beginning of a new era in the history of the breed. He was first at Glasgow, Ayr and Bart Kilbride in 1852-3, but sustained defeat in the following year at Glasgow. Major was possibly the first of the great Ayrshires which attracted universal attention to Mr. Parker's herd. The owner devoted his whole attention to his Ayrshire storks. He was a typical farmer of the old school, and, no matter how employed, invariably wore a tall hat. Mr. Parker deserves to be remembered as one of the great stock-breeders of Great Britain. He left the impress of his genius on the Ayrshire breed, and had those who followed him been content to adhere to his ideals there would have been less complaint than was for long so common about the lack of commercial value and merit in the Ayrshire breed. Major was undoubtedly a famous sire. His first great son was Cardigan, a bull bred by Mr. Parker, and owned during his public career by Mr. Ivie Campbell. His epoch is clearly indicated by his name, borne in honor of the leader of the forlorn charge at Balaklava. Cardigan was first at Ayr as a stork, a two-year-old, a three-year-old, and a four-year-old, and only once suffered defeat, being placed second at Glasgow when a stork. In color he was very dark brown or nearly black; like his sire, he had long horns, which were scarcely wide enough, but his neck, shoulders and back were faultless. His female produce were not famous in the show-ring, being rather deficient in the formation of the milk vessel; in fact, it was said that he only left one good cow, which can be interpreted from the show-yard standpoint and easily understood. His produce were characterized by great bodies and plenty of style, and although faulty in their vessels, had good teats, and were of the type that would now be popular in an auction ring and be in demand with Canadian breeders who want cows that will fill the pail. No photograph of this bull exists; the only one that ever did exist was destroyed by fire. The merit of Cardigan is reflected in the enthusiasm with which men nearing the fourscore sound his praises. One hundred pounds was offered for him by Sir James Fergusson, Bart., who wanted to show him at the first Paris exhibition. The price was refused by his owner, Mr. Ivie Campbell, who was a born sportsman and lover of high-class stock of every kind. Another bull of the same race was named Clarendon. He had the same breeder, owner and sire as Cardigan, and their dams were a pair of brindled cows. Clarendon's dam was the better cow of the two, and although Clarendon was not individually as good a bull as Cardigan, he is regarded with greater favor as a sire. His female progeny had the vessels and teats which were favored by "the fancy" at the time, and were show winners. A full sister of Clarendon, of the same color, was one of the greatest show cows of the breed. She had the vessel and teats of a right dairy cow, was of the same color as the rest of the progeny of Major, and her description shows that she was not one of the kind which brought the show Ayrshire into disfavor.

This scant survey of the Ayrshire leaders up to about the middle of the nineteenth century proves that whether improved or not, there is a great difference between the show animal of our time and the show animal of that day. The show bulls of to-day are not so masculine as those of half a century ago, but they had far more to do with developing the type of the breed than our present show animal. The modern show-yard Ayrshire, in fact, is very much a breed by itself, and exerts little influence on the purely dairy stock of the country. That points to a defect in our system of show-yard management, but it also suggests that for a time at least buyers in quest of commercial dairy cattle should not attach over-much importance to the show-yard type. These older bulls left their influence on the breed. They were in much request, and the type is still to be found in the great breeding districts by those who look for it. The breed has not been improved much in commercial qualifications if the show-yard is to be the only test, but if the experience of the great army of Scottish farmers who live by milk-selling and the manufacture of milk products is to be the test, then the Ayrshire of to-day is a worthy heir of the great animals which have been briefly described.

The "Farmer's Advocate" is getting better every year, and no practical farmer who wishes to keep abreast of the times can afford to be without it. W. C. VANSICKLE.

Needs of the Dairy Industry.

(Paper read by Mr. J. A. Ruddick before the Ontario Agricultural and Experimental Union.)

Prices for cheese during the past season have ruled somewhat lower than during 1900, the striking feature of the market being the comparatively low prices obtained for the autumn makes. Although the wind-up has been rather disappointing to all sections of the trade, the situation offers some encouragement for the future, because the low price should, according to all precedents, create a very strong consumptive demand between now and the opening of the season of 1902. Then there is the remarkable shortage in the supply from all sources. The latest available figures show that the decrease in the total shipments from Canada and the United States since the first of May, 1901, amounts to 445,291 boxes. Recent advices from New Zealand state that the tumble in prices, coming as it did just at the opening of their cheesemaking season, caused the combined factories to contract for butter instead of for cheese, and that the weather has been unfavorable for the production of milk. The probabilities are the shortage from New Zealand up to April 1st will amount to something like 70,000 boxes. The make of cheese in the United Kingdom during the past season was also below what it has been, so that on the whole there is an enormous decrease in the supply of cheese up to the opening of next season's operations. Of course, the amount in store is an unknown quantity, but it cannot be very greatly in excess of what there was at this time last year. If stocks are not reduced to a low point before the new season's cheese is offered, it will be a very striking proof of the statement, frequently heard of late, that the consumption of cheese is rapidly falling off.

We have heard a good deal also about the deterioration in the quality of Canadian cheese

have kept these instructors in Canada, instead of allowing them to leave for the purpose of assisting our competitors to win against us. Every Canadian was proud of the splendid victory which our cheesemakers won at Chicago in 1893, and the advertisement which Canadian cheese received on that occasion was worth a great deal, but to hold the position attained called for redoubled efforts and increased vigilance all along the line. Having earned such a high reputation, more was naturally expected of us. The very beating which we gave our competitors has ever since been an incentive to them for employing every possible means to overtake us, and if we are to judge by recent events their efforts in this direction have not been without effect. I do not think Canadian cheesemakers are apt to have their heads swelled very much by the results of the competitions which have taken place during the past summer at Buffalo, with our friends in New York State claiming the victory for October, unless it may be from the ridiculously high scoring of the cheese.

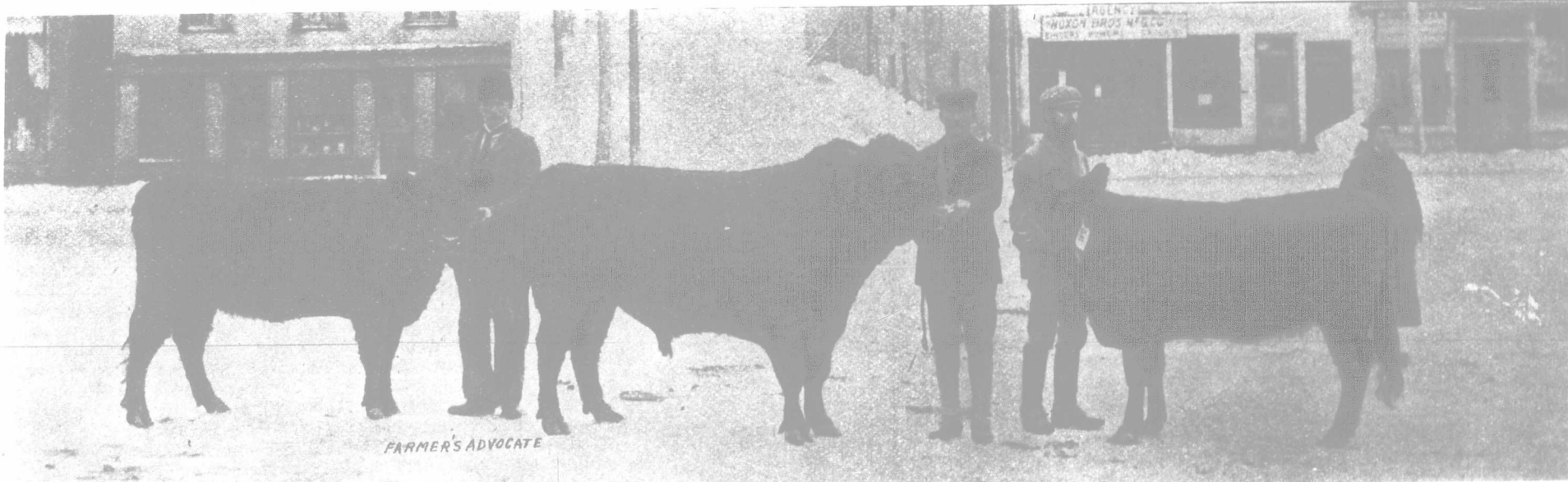
SMALL FACTORIES.—But there are other and more concrete causes which are working against the advancement of the cheese industry at the present time. I believe the most serious one is the existence of so many small factories, a condition which brings in its train a whole string of evils. In the first place, the competition for milk is so keen that the cheesemaker is often prevented from exercising his judgment in rejecting any which is not in proper condition, and the patrons, realizing that if one factory does not take their milk another will, become indifferent and careless in their methods of handling it. The price for manufacturing is cut down to the lowest possible limit, which means poor buildings, poorly equipped in every respect. Given these conditions, along with the inferior milk, it goes without saying that the most skillful cheesemakers cannot turn out an article that will meet

means cheapness, and, although a good factory may be put up to start with, lack of funds will prevent it from being kept up to the mark: the necessity for increasing the milk supply encourages the patronage in sending milk which is not in good condition, and if by any chance a capable maker is secured, he is not likely to remain long in a place which has so little to give him in return for an intelligent, skilful service. I know as well as any person that good cheese is often found in very small factories, but the general tendency is demoralizing, and can only have one result in the end.

Then there is the comparative cost of manufacturing in small factories as compared with larger ones. The actual cost at many factories is over one cent per pound—not counting the cost of hauling the milk—and this, notwithstanding the fact that everything is done in the cheapest possible manner, and starvation wages paid to the cheesemaker. At other and larger factories, where everything is first-class, and managed by a well-paid cheesemaker, the cost of manufacturing—including the hauling of the milk—has been reduced to less than one cent per pound of cheese. The money lost to the dairymen of Canada through this source amounts to an enormous sum annually.

THE BUTTER INDUSTRY.

Turning our attention now to the butter-making branch of the industry, we find some features of it in a somewhat different position from the cheese branch. Our exports for the past season show an increase of something like 154,000 packages over 1900, approaching very nearly in volume, and exceeding in value, the record export of 1899. Prices during the past season have been well maintained. The most gratifying feature of our butter trade is that the quality of our butter continues to improve and give better satisfaction to the consumers. Much of the im-



FLORA McERIN 2ND 15040. IMP. VICEROY OF CASTLEMILK 19064. BELLE B. 2ND. TYPICAL GALLOWSAYS. PROPERTY OF A. M. & R. SHAW, "HIGH PARK FARM," BRANTFORD, ONTARIO. (SEE GOSSIP, PAGE 32.)

A gradually declining market may have had something to do with it during the past season, but it is no new thing, and the complaints which have come from our customers in England, for two or three years past, are too serious to be ignored. It would be a difficult thing to prove that the quality of our cheese has actually deteriorated, but I do know that a large quantity of very inferior cheese has gone forward during the past two seasons. During that period I have had exceptional opportunities for getting the information by constantly visiting the Montreal warehouses, and examining large numbers of cheese. There is no other way by which this information could be got so accurately. Whether there is more poor cheese now than there was three years or four years ago I am not prepared to say, but it does seem as though we had not made the advancement for some time past that one would naturally expect to follow the excellent work of the dairy schools and travelling instructors, to say nothing of the great prominence given to dairy matters by all sections of the press, but particularly by the papers devoted exclusively to agricultural matters.

What, then, are the reasons why Ontario today is not as progressive along the lines of cheesemaking as she has been in the past? It seems to me that one of the things which has been retarding progress with us is the self-satisfied feeling which has been all too common for several years past. We have been patting ourselves on the back and depending on past achievements rather than on future exertions; we have been justly proud of the fact that Ontario was among the very first countries to employ travelling cheese instructors, and that many of our boys are now filling important positions as instructors in different parts of the world, but these facts in themselves do not improve our cheese. It would have been more to the point to

the present-day demands of the market. The Canadian cheesemakers, as a body, are the best trained of any in the world to-day, and if they were given half a chance there would be very little cause to complain of the quality of our cheese, but any calling in which the wages are sometimes screwed down as low as thirty and even twenty-five dollars a month, and that for only about half the year, is sure to number within its ranks men who are not of the right class to make any industry a success.

Many bright young men take up cheesemaking, and fit themselves thoroughly, only to find when they want a situation that the man who will work the cheapest is usually given preference, regardless of his qualifications. The result is that scores of the most likely makers quit the business in disgust and take up some other work. Of course, there are many notable exceptions of men who have made cheesemaking in Ontario a life's work, and who have succeeded in making a name for themselves and for the factories which they have managed, but it has not been done in a factory belonging to the class which I have described. I do not wish to be misunderstood. I know that there are hundreds of first-class cheesemakers in Ontario, and I know also that there are hundreds of good factories where the conditions which I have outlined do not prevail. If it were not so the cheesemaking industry could never have succeeded as it has. But I am trying to deal with the defects in the business. Therefore, I desire to show up its weak spots in the strongest possible light. Nor is it to be supposed that all cheese which is made in small factories is of inferior quality, for there is nothing to prevent the very finest cheese from being turned out of a factory which does not make more than five or six cheese a day, providing the conditions are what they should be. The point I want to make is that such a small business

improvement is due to better transportation facilities, which enables us to place our butter on the English market with less deterioration in transit than there was formerly. The refrigerator-car system, with routes subsidized by the Dominion Government, reaching nearly every part of the country, the cold-storage warehouses and refrigerated space on the steamships, have made a successful export trade in butter not only possible, but capable of almost indefinite expansion. If we continue to improve as we have done for some years past, it is quite possible that our exports of butter will grow to a very large extent. But we shall not win a foremost place on the markets of Great Britain with our butter as easily as we did with our cheese, because the competition is much keener. We have Denmark, Australia and New Zealand to deal with in this competition, and these are countries where no effort or expense is spared to produce the very best article. No danger of them doing anything like our American cousins did with their cheese trade, when they attempted to compete with us and at the same time flooded the market with skimmed and filled cheese. Their experience has ever since been an object lesson which has not been lost sight of by the rest of the dairy world. But we have much to do, and must become more thorough in our methods before Canadian butter occupies the position it should have on the Old Country market. The only hope for the future is to make a superior article, and then see that it is transported to the customer under such conditions as will ensure its arrival without deterioration. The market is now more than ever supplied with under-grade butter since Russia has entered the field. Let Russia supply that second-class article, for that is not good enough for the product of Canadian intelligence and skill properly applied.

HOW TO REMEDY DEFECTS.—It is a good thing for our butter business that those engaged

in it have not been given to self-laudation so much as the cheesemakers have, but, realizing their deficiencies, they have, with the help of the dairy schools, made an earnest effort to improve. Now, it is one thing to criticize and point out defects, but it is another and generally more difficult thing to show how these defects may be remedied.

It is obvious that if large factories are to take the place of the smaller ones, that the patron must be convinced that it will pay him to send his milk to the larger one. He will never do so for the sake of the industry as a whole. Something might be done by giving prominence to annual statements of large and flourishing factories. The lower cost of manufacturing would appeal to the average patron as no other argument would. I would have more edge put on the work of the travelling instructors. These men have done excellent work, and I have no fault to find with them, but they have been hampered a good deal by not being entirely independent of the factories. This applies perhaps more particularly to Eastern Ontario than it does to the western part of the Province. The instructors should give more attention to the milk supply, and to the general condition of the factory, and then be in a position to state the bare facts to those concerned without prejudice to their own interests. I am afraid there has been too much tendency to gloss things over for the sake of peace and popularity. If the true state of affairs were better understood by patrons they would not be so ready to support the poor factories where such indifferent work is done.

It would be a good thing if some means could be devised for compelling the proprietors of many cheese factories and creameries to improve the sanitary condition of their premises. The remarks which one hears concerning the offensive character of the surroundings of the average factory are often so pointed as to make a man feel almost ashamed of being connected with such an industry. We might very well follow Denmark's example in this respect, where they have a law which lays upon every cheese factory or creamery the obligation to provide proper drainage. It is specified that all waste and slops must be conveyed in a closed tile drain to a certain distance from the factory. With the floors of cement concrete or stone flags there is then no danger of a nuisance being created or the water supply being contaminated, as is too often the case in this country. If the general appearance of the factories and their surroundings were improved, it would not only raise the general tone of the business, but it would be bound to have an influence on the patrons by encouraging them to do their part better. Cheese and butter makers are a good deal to blame in this matter, for I have seen many places where the makers were so untidy in their work and personal appearance that for them to complain of tainted or unclean milk would be an absurdity, if not an impertinence, and not very likely to have much effect in any case.

I could relate many specific cases where the product of a factory has been contaminated through the unwholesome conditions arising from defective floors and lack of drainage. As a matter of fact there can be no effective drainage where the floors and gutters are not absolutely water-tight. I hope to see the day when Canadian cheese factories and creameries will all have cement concrete floors. They are not so nice to work on as a good wooden floor, but if properly put down the cement floor will last as long as the building, and from a sanitary point of view there is no comparison. Better floors is one of the conspicuous needs of the Canadian dairy factories.

There are three prominent defects in Canadian cheese as landed in Great Britain, viz., "heated flavor," "weak, open body," and poor condition of boxes. We have plenty of evidence of late to prove that the natural temperature of the curing-rooms is too high during the summer months to secure good results. Cheese go off flavor and the body becomes rough and mealy, whereas if these same cheese were cured at a lower temperature they would be preserved in better condition and suffer less loss in weight. At what temperature the cheese should be cured to secure the best results, quality and profit both considered, has not yet been clearly established. Cheese have been taken direct from the press and held at a temperature below the freezing point of water for eighteen months, showing at the end of that time very desirable qualities as regards flavor and body. Prof. Dean and others report experiments in curing at a temperature of 38 to 40 degrees with similar results. This, of course, means cold storage from the time the cheese is taken from the hoops. Earlier experiments, some of which I conducted myself, have shown that even a temperature of 60 to 65 degrees as compared with an uncontrolled temperature, going as high as 90 degrees, produced a cheese free from the very objectionable effects of heating, and further, that there was a saving in shrinkage which added to the increased value of the cheese, would in a year or two pay for such improvements in the curing room as would enable the manager to control the temperature to the extent mentioned. A bul-

letin entitled "Improvement of Cheese Curing Rooms," giving detailed information for accomplishing this result, may be obtained by application to the Commissioner of Agriculture, Ottawa.

When cheese have a "weak, open body," the blame may be laid entirely upon the cheesemaker. It is the result of insufficient development of acidity in the curd before salting and putting to press. Lack of judgment and haste to finish the day's work are responsible for this defect in the quality of our cheese. Makers who are not well grounded in the principles underlying their work are not able to readily adjust their manipulations to meet the changed conditions of the milk following a change of weather.

POOR BOXING.—That much of the Canadian cheese reaches the English markets with the boxes in a disgraceful condition cannot be denied by anyone familiar with the facts. The steamship companies have adopted improved methods for loading and unloading cheese since representations were made to them on the subject by Prof. Robertson, but the fact remains that there is still a very large percentage of boxes arriving in a smashed and broken condition, detracting very much from the appearance and value of the cheese. The agents of the Department stationed at London, Liverpool, Bristol and Glasgow reported as many as 10, 20, 30 and even 50 per cent. of the boxes in a whole cargo as being landed in a damaged condition.

The main reason for this state of affairs is that the boxes are too flimsy, and not well enough made to stand the handling. Many boxes are made of too light material, and some are not sufficiently nailed. It is said that the price of boxes has been beaten down until the manufacturers cannot afford to make as good a box as they might make if paid a reasonable price. Through lack of management on the part of the cheesemaker or factory owner, many boxes do not fit the cheese properly. It is a common thing to find boxes fully one inch larger in diameter than the cheese which they contain, and it is among these that the largest proportion of breakages occur. There are some cheese which carry to their destination with a very small percentage of broken boxes, notably those from Prince Edward Island and from some of the factories in the Brockville district. It is because the boxes are well made and fit the cheese snugly. The factories in the Ingersoll and Listowel districts also have a reputation for attending well to the matter of boxing their cheese, and they are well repaid for doing so. It is regrettable that all factories cannot avoid mistakes of this kind, for it is a simple thing to get a box which fits the cheese properly without the slightest extra cost. More attention should also be paid to the branding of the boxes and marking of the weights. To mark weights with a pencil is a slovenly and unsatisfactory method, which should not be tolerated in any factory. A stencil for the purpose costs only a few cents.

There are a good many cheese with too much acid, and then we have special taints or flavors such as "fruity," "rancid," "garlicky," etc., which appear from time to time, like infectious diseases, in the best regulated establishments. To overcome such difficulties as these we need more work of the kind done by Prof. Harrison during the past summer in connection with the appearance of "bitter" flavor.

FLAVOR.—It is safe to say that the principal defect in the quality of Canadian butter, as in the butter from any other country, is in regard to the matter of flavor. The causes which give rise to this defect are many and not always easily located, but the buttermaker has a great advantage over the cheesemaker inasmuch as he has it within his power to control the flavor of the butter to a very great extent by the use of good-flavored fermentation "starters" and by proper attention to the ripening of the cream. His failure to do this is one reason why the butter is often inferior in flavor. Buttermakers must study this question of ripening cream and the use of "starters." The trouble is that very often the "starter" produces a bad flavor instead of a good one. When the farmer sows his seed he expects to reap exactly what he sows. If he sows wheat he reaps a crop of wheat, but if the grain he uses is full of mustard seed I need not point out what the result will be. It is not possible to get fine-flavored butter where bad starters are used any more than it is to get a crop of wheat from the mustard seed. The difficulty is that many buttermakers apparently do not know what is a proper starter and what is not. This is where the necessity for study comes in. Another great need is for a better understanding of the principles underlying refrigeration and cold storage. Creamery managers do not appreciate the importance of keeping butter at the lowest possible temperature. If a creamery cold storage cannot be kept at a temperature as low as 36 degrees, by the use of ice and 8 ft. cylinder, there is something wrong either in the construction or in the management of it. I have a thermograph record from one of the Northwest creameries which varies only between 38 and 34 degrees for a period of one week during very hot weather. This refrigerator water should be used

for retail butter or for holding between workings. That means opening the door too often, allowing warm, moisture-laden air to get in, causing dampness and higher temperatures. An anteroom should always be provided where butter may be chilled or held for short periods. Butter is often damaged between the creamery and the refrigerator car by being carried in the hot sun without protection. I have seen it left for hours on a station platform exposed to the same injurious influence. That is one reason why butter is sometimes delivered from the refrigerator cars in a soft condition. These cars are only intended to hold butter in the condition it is in when delivered to them.

Referring again to protection for butter when being carried in the hot sun, I would point out that a tarpaulin made impervious by means of linseed oil should never be used. The oil seems to absorb heat, and anything lying immediately under such a covering with the sun shining upon it will be at least ten degrees hotter than if exposed to the direct rays. A canvas cloth without any oil is all that is necessary, and it will be more effective if held a few inches above the top of the load in order to allow the air to circulate freely underneath.

The agents of the Department have reported some cases of mould on Canadian butter during the past season. This may be caused by unseasoned timber in the boxes, but it more often is the result of the boxes or parchment paper being infected with mould at the creamery. A great deal of carelessness is displayed in these matters, and if you go into some creameries you will find the parchment paper lying about without any protection when it ought to be handled as carefully as the butter itself. As a preventive measure, the paper should be soaked for 24 hours before using in a strong brine made with boiled water and to which formalin is added at the rate of one ounce of formalin to three gallons of brine. We have never been troubled with mould in the Government creameries since this practice was adopted.

What has been said about the importance of neatness and care in branding cheese might very properly be repeated regarding butter. Indeed, I have no hesitation in saying that Canadian butter lacks very much the attractiveness and finish which characterizes the product of our competitors. Therefore, I urge that more attention be given to those matters which are so important.

Methods of Creaming Milk Compared.

Creaming milk is of very great importance, about which the majority of farmers have still much to learn. The improper handling and creaming of milk account in many cases for the loss of profit in dairying. During the past year I tested hundreds of samples of milk, and I was really shocked to find the high percentage of butter-fat left in the skim milk—all the way from half a per cent. to over one per cent. This meant in many cases that for every four pounds of butter the cows made, the farmer deliberately wasted one. Such farmers will frequently say: "Oh, but the skim milk is good for the calves!" Are these same farmers raising such fancy stock that they can afford to feed them a food that sells for 18 or 20 cents a pound? I think not. Let us discuss together the different systems of creaming milk. Then we can draw our own conclusions. There are the two methods: the gravity or natural method, and the centrifugal or artificial method. The cream is obtained by the first method in three ways: by the use of shallow pans, by deep cans, and by the addition of water (called the hydrolactic system).

SHALLOW PANS.—For centuries shallow pans or basins have been used, and while they have served a good purpose, still not much can be said in their favor. However, there are conditions under which the pans may be recommended. Where a person is only keeping two or three cows, or where water is scarce and ice hard to procure, or a man cannot see his way clear to invest in a separator, pans may be used. The great objection to them is that there is such a surface of the milk exposed to the atmosphere, and, as is often the case, the milk is set in a cellar where the vegetables and food are kept. Under such conditions it is a hard matter to make first-class butter, for of all things milk has the greatest power to absorb odors, hence the necessity of having milk in a pure, sweet air. Another objection to pans is they occupy so much space and take considerable time to skim and wash. To obtain the best results from shallow pans, the milk should be immediately strained into clean, bright tins and set in a well-ventilated room where the atmosphere keeps about 60 degrees. Avoid a direct draft over the milk, as it causes a thick, leathery crust to form on the cream. Skim before the milk thickens, usually at the end of 24 hours in summer and from 36 to 48 hours in winter. Instead of using the old-fashioned perforated skimmer, loosen the cream from the edge of the pan with a knife, rest the pan on the edge of the cream can, hold back the sheet of cream with the knife to first allow a little milk to run over to wet the edge of the pan, then with the aid of the



FIRST-PRIZE CARLOAD ABERDEEN-ANGUS CATTLE.
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knife glide the cream into the crock. If properly done, as much cream may be obtained by this method as by the deep cans and ice. The cream comes to the top all right, but is lost by improper skimming.

THE DEEP CANS have much in their favor over the shallow pans, as many know who have used both. Cold water is the one essential thing in getting good results from the deep cans. The water to do efficient work must be 45 degrees in summer and below 40 degrees in winter. Milk, for a number of reasons, is harder to cream in winter, hence the need of colder water. Few springs or wells furnish water cold enough to raise the cream, yet in my travels over the country I find dozens of farmers who put up no ice and who use the deep cans. I have seen the cans just in a tank under a tree by the pump and the water changed once or twice a day. I have frequently tested samples of the milk, and have found all the way from six-tenths to one and one-half per cent. of butter-fat in it—a loss sufficient to take away all profit.

A water-tight box or barrel does as good work as an expensive cabinet creamer; but the latter is very convenient, as milk may be drawn at any time without lifting the can or disturbing the cream. Avoid spilling milk in or about the tank that holds the cans. Keep the water pure. Have it come up as high as the milk, and see that ice or snow is in the tank all the year around. In warm weather it is economy to have ice in the water all the time, as when the water gets warm it takes a larger piece of ice to reduce it to the proper temperature. Many use nothing in the water in the winter time. This is a mistake. Ice or snow should be used to keep the water at 40 degrees or below.

Do not set the milk cans in a snow bank and expect good results. The heat from the milk melts the snow from around the cans, and then the snow acts as a blanket to keep the milk warm and the creaming is not very satisfactory.

Allow the milk to stand 24 hours in summer and from 36 to 48 hours in winter. Last winter I conducted experiments in skimming milk at the end of 12 hours and at the end of 36 hours. All conditions were as favorable as possible. The average of a number of tests showed a loss of .72 per cent. butter-fat in the skim milk when drawn off at the end of 12 hours. The milk which stood 36 hours had only .3 per cent. butter-fat in it. This showed the advisability of allowing the milk to stand a sufficient length of time before running off the skim milk.

DILUTION SEPARATION.—I have nothing to say in favor of the hydrolactic method of obtaining the cream. If you wish to test it, you may do so without buying the expensive cans that are on the market. Just take an ordinary can, fill half full with the freshly-drawn milk, then fill up the can with water and let stand from four to twelve hours. At the end of that time you will have a lot of watery skim milk. Test a sample of this; multiply the result by two, for the milk is half water, and you will find you are losing 7 or 8 tenths of a per cent. butter-fat in the skim milk.

SEPARATORS.—And now we come to the centrifugal or artificial method of obtaining the

cream, and we certainly have left the best to the last. I like to talk separators to farmers. Not that I have any interest in a machine, for I never sold one in my life; neither do I advocate one make over another. But I do know that in the majority of cases where farmers are making butter at home or selling cream, they could put money into nothing that would so soon pay for itself as in investing in a cream separator. Anyone having eight cows or more cannot go far astray in buying one. In all my intercourse with people I have yet to meet the person who has purchased a separator and is willing to go back to the old method of creaming the milk. What does the buying of a separator mean? In the first place, it means less labor—no small consideration when help is so hard to procure. In the next place, it means, at a low estimate, a pound more butter a week from each cow in the herd, and if the cream is properly handled it should mean a better quality of butter. The machine takes out the dirt, and the milk has had no opportunity to absorb impurities by standing around. The fresh warm milk, judiciously fed, makes better calves than those fed on skim milk from the cans or pans. I know there is a difference of opinion on this point, but more knowledge is clearing away the difficulties.

In buying a machine, get one of a good, reliable make, one of sufficient capacity, and one that is easy to turn and does not take too long to clean. Most of the makes do very thorough skimming—they have to, to hold their place in the market. Not more than one-tenth of a per

cent. of butter-fat is left in the skim milk, sometimes only half this amount.

In setting up a machine, see that the foundation is solid and level. Have all the parts thoroughly cleaned, properly put together, and well oiled. Start up the machine slowly and sustain an even, steady speed, turning the crank no faster than the required number of times per minute. Milk is at its best for separating when freshly drawn. Should it cool below 80 degrees, it is necessary to heat it. After using the machine, see that it is thoroughly washed and scalded. A good separator, properly handled, should stand many years of usage. LAURA ROSE.

Ontario Agricultural College.

Feeding Beef Cattle.

Whether there is any considerable profit in feeding beef cattle in stables during winter for the export or the home market is a question that can only be solved by actual experience, since its solution depends largely upon the price at which they are bought and the price at which they are sold. Much also depends upon the quality of the cattle, upon the judgment exercised in the selection, and upon the skill of the feeder in adopting and dispensing a combination of foods that shall prove at once economical and effective in preserving health and steadily increasing the weight of the animals, bringing them up to the necessary standard of condition to command the best price current for their class when it is decided to sell. We are presuming that the cattle have to be bought, because we know that comparatively few farmers in this country raise as many as they require if they go into the business of feeding as a specialty to any considerable extent. But if one has the cattle without buying, the question of profit or loss in feeding can only be determined, as in the other case, on the basis of the market

value of the animals at the time of commencing to feed and at the time of disposal. While, as is the case in most things in connection with farming and stock-raising, if a strict account be kept of the market value of all the feed and labor involved in the production of the finished article and charged against it, it will be found to tax the skill of an expert mathematician to figure a favorable balance for the producer, yet the fact that many successful farmers have continued for many years to buy and feed beef cattle for the market would appear to be reasonably good evidence that when judiciously managed there is in the average of years profit in the business. But we judge that this profit will, upon investigation, be found mainly in the favorable disposal of the fodder, grain and roots raised on the farm, through the medium of the cattle instead of on the market as such, since for most of this there really is no demand, while for beef in these times there is a fairly reliable market at paying prices. If it can be shown that hay and grain is worth more fed to cattle than sold as hay and grain, it is surely wisdom and economy to feed it on the farm rather than haul it to the market. Even if no balance can be shown in favor of feeding it, if the accounts are about even without counting the difference in the labor involved, the value of the manure made will more than compensate in the maintenance of the fertility of the farm and its ability to produce paying crops of any kind.

The profit in feeding will depend very much on how the cattle are selected and bought; indeed, it may be said that a steer well selected is half



ON THE WEIGH-SCALE.
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fed. Only such as show evidence of the influence of the blood of one of the pure-bred beef breeds are likely to prove profitable feeders. They must be low-set, wide-chested, smoothly turned, and have a soft, plastic hide and fine hair, in order to make the best return for the feed they consume. The ill-bred, long-legged, narrow-chested, high-boned sort should be left severely alone, no matter how big or how low the price asked, as the chances are that they will prove unprofitable feeders, and one or two of such in a bunch of good ones will handicap the sale of the lot. Uniformity of size, type and quality counts for a good deal in the selling of a bunch of cattle, and this should be considered in the selection and buying. If one cannot get the number of the kind he wants in his own neighborhood or within a convenient distance, it may be well to communicate with a dealer and arrange to select from a bunch when they are gotten together. Some feeders, by watching their opportunity, have succeeded in getting satisfactory lots at the stock-yards at times when there is a large run of cattle in or the demand is not very brisk, and some have done well by leaving the selection to a reliable dealer at the yards, with instructions that only good and well-bred cattle shall be included. The weight of cattle bought in November for the export trade in the spring should not be less than 1,000 lbs., and had better be 1,100 lbs. to 1,200, at say two and a half years old.

On good old pasture, where they can get a full bite, cattle will do well without other feed through most of November, but if grass is short or of a soft and watery nature it will be economy to feed them some hay or corn fodder in racks or boxes when the weather gets cold, to keep up the internal heat and save them from losing flesh, as flesh lost at this time must be made up before any gain in weight can be made. When the animals are placed in the stalls or sheds for winter feeding, assuming that they are to be fed to a finish for sale in the early spring, the feeding at first should be moderately light and should consist largely of roughage or bulky food such as hay, straw and chaff, with a few roots or a light ration of silage for succulence to avoid the constipation which is apt to occur when a sudden change is made from green to dry feed. If any grain is fed in the first weeks it should be of a light nature, such as a mixture of bran and ground oats or barley, to be gradually increased in weight and strength until full feeding is entered upon. The results of tests at the experimental stations has shown and the experience of successful individual feeders confirms the theory that light grain rations are more economical and profitable than heavy, especially in the first months of the feeding period. In the finishing stage the grain ration may well be made richer, but at all times there is economy and safety, as well as science, in feeding a mixture of grains, rather than a single variety, and at all times it is well if the price of bran and oats is such as to justify their use that they should form a part of the ration, and at all times the grain ration should be fed mixed with cut hay or straw, silage or pulped roots, or, better, with a combination of these, in order that in the processes of mastication and digestion the elements of the food may be assimilated to the best advantage. It is perhaps needless to add that regularity in the times of feeding, watering, grooming and cleaning out of stables is an important factor in the steady gain in weight of the animals. Comfort and quietness will go far in the attainment of this end. It is a mistake to allow the cattle to be disturbed more than is really necessary between the times of feeding, and care should be observed from the first to see that they are free from lice or skin disease of any kind, and to this end, as well as to render grooming more effective, the hair should be clipped short the whole length of the back and about the root of the tail, and to secure cleanliness the switch should also be shortened and reduced in bulk. But the first thing to be done is to secure the cattle, and the main object in writing this article is to remind those who have not already made their selections, that November is the last month in which this can be done to good advantage in the average of years. In any case it is not well to be too hasty in buying if one is not fairly well satisfied with the quality of cattle in sight: better take time and be sure you are right in this respect than to buy cattle of inferior type or quality, for they are almost sure to prove unsatisfactory and unprofitable. We have given no opinion as to the price a feeder will be justified in paying for cattle at this time, in view of the probable market prices in the coming spring, preferring to leave that question to those of our readers who are more actively engaged in the work and whom we invite to give their views on the subject in brief letters in our next issue. The present scarcity of good cattle offering keeps the price higher than is usual at this time of the year, but the prospect is that this scarcity will continue for a year or two, and that prices will continue high. If one buys in the open market he must pay the market price for the class of cattle he wants, and it is unwise to buy an inferior class simply because the price is lower.

The Ontario Winter Fair.

The Winter Fair at Guelph, December 10th to 13th, excelled all previous events of its kind in Canada in the number of entries of live animals and dressed carcasses, in the display of poultry, and in the number of cows competing in the milking test. The attendance of visitors largely exceeded that of any former occasion, the gate registers showing that more than twice as many people passed into the building as in 1900, when the attendance was double that of the previous year. The fair is growing in favor and interest with the farmers, as it should, for the reason that it is purely agricultural and educational in all its features, showing the best types of meat-making animals. The stalls and pens were packed full of stock, for the most part of an excellent quality, comparing well with and indeed quite equal on the whole to that of former years, though perhaps the best cattle were not as good as some seen here in former years. The sheep were never better, and the same may be said of the swine display, while the exhibition of poultry was the greatest and grandest ever brought together in America, every class being well filled with typical birds in the finest bloom. The management of the show was creditable to all concerned, the programme being carried out with commendable promptness and punctuality, and the only complaint heard being that the magnificent building erected for the permanent home of the show, and once considered liberally planned for space and accommodation, is already found to be too small for its purpose, the expansion of the show urgently demanding more room for stock, for judging rings, for the passing of the ever-increasing crowds of visitors, and especially for lecture rooms sufficient to seat the great gathering of farmers eager to hear the addresses by experts on the types of animals called for by the markets and the best methods of producing them.

The judges in all classes of live animals were well chosen, and their work was on the whole well done, there being less friction, less dissatisfaction and fewer complaints regarding the decisions than usual, good standard types being chosen for preference whenever available. This, we regret, is more than can be said of the work of the judges of dressed carcasses, which was in nearly every case out of harmony with the decisions in the live classes, and but for the sharp criticism freely meted out to them by breeders and feeders in the lecture-room, when attempting to explain and defend their work, would go far towards defeating the educative purposes of the show. There was, we believe, no doubt entertained of the honesty of their decisions from the standpoint of the judges, who were practical butchers and evidently gave preference to the carcasses that would cut up most profitably to themselves, without any regard to the producer's interests. We presume their attention was not called to the instructions to judges in the rules of the show to judge from a breeder and consumer's standpoint, else they could hardly have given first place, as they did in the pure-bred class, to the carcass of the thin-fleshed steer, leggy and light-boned, that was termed a Texan in the show-ring, or to that of the shamble-legged, narrow-chested, weak-necked hog that was used by the lecturers on types as a horrible example of the kind not to raise for profit to the producer, for his flesh was far from what is required for the best bacon trade, as was that of the steer for our best market for export cattle.

CATTLE.

While the entries in grades were numerous and mostly of a very good class, the liberal prizes offered for pure-bred steers do not bring out entries sufficient to claim the prizes. This is supposed to be owing to the active demand for bulls in the last few years, fewer being altered than formerly, but it is a question whether it would not be more profitable in the long run to convert more of them into steers, as it is more expensive to raise a bull than a steer. The cattle were all judged by Thos. Crawford, M. P. P., Toronto, and Robt. Miller, Stouffville.

In the class for Shorthorn steers over two and under three years there was one entry forward, a large, fleshy, well-formed, white animal named Snowball, shown by Geo. Dickie, Hyde Park. In the section for yearling steers there were none to claim the prizes of \$40, \$30 and \$20. In steers under one year there were five entries forward, and a really good lot they were, three of them, including the first- and second-prize winners, being whites, the first award going to a capital calf bred and shown by Jos. Kirby, Armstrong's Mills. This calf, 11 months old, was raised by hand (that is, fed from the pail), and was remarkably well developed, having a strong, well-fleshed back and well-sprung ribs, and being thick through the heart, giving evidence of good constitution and feeding qualities which should carry him along as a winner in the coming years. The second-prize calf, Blizzard, bred and shown by Col. R. McEwen, Byren, is of a very similar stamp to the first and gives promise of running him closely. These two were purchased for Mr.

Rupert Coates, Nappan, N. S., and will probably make their mark at the Maritime Winter Fair next year. They will be watched with interest by Ontario feeders. The third prize in this section went to a thrifty roan shown by G. Walker, Ilderton, and fourth to a handsome and well-balanced white calf, Reciprocity, shown by H. Smith, Hay, a son of Imp. Knuckle Duster, which needs only another chance to prove himself a winner of higher rank, which he is likely to do, since he has been sold to Israel Groff, of Alma, whose cunning hand will doubtless bring out the inherent good qualities which it is not difficult to see he possesses in no small degree. In the class for cows or heifers three years and over the first place was given to a smooth red four-year-old shown by A. B. Baxter, Hamilton; second to a level and well-formed roan of the same age from the herd of J. & R. McQueen, Elora, and third to John Brown, Galt. Heifers two and under three years were well led by the white free-martin, Barmaid, by Abbotsford, shown by Harry Smith, Hay. This was a model beef animal, well finished, level and strong in her back and thickly fleshed. The second place was given to Felicia, a blocky, beefy white heifer shown by E. Jeffs & Sons, Bond Head, and third to Jas. Gibb, Brooksdale, for Nerissa Jewel, a heifer of nice character. In the section for yearling heifers, a strong showing was made, and the first award went to the sweet red Money May, by Lord Moneyfuffel, shown by Jas. Leask, Greenbank; second to Easter Lily, a charming roan, full of quality and character, though not fat, from the herd of E. Brien & Son, Ridgetown; third to Fried & Son, Roseville, for Roan Queen by Kinellar Stamp. The sweepstakes prize for best Shorthorn steer, any age, went to Col. McEwen's white calf, Blizzard, which was second in his class. Kirby's first-prize calf, through an oversight, not being entered for sweepstakes, a contingency which, it would appear, should be provided for in the rules by making all first-prize winners eligible for the sweepstakes competition without a special entry, since it is certainly desirable that the best in the class should win. The female sweepstakes winner was Jas. Leask's yearling, Money May, though many minds turn to Harry Smith's Barmaid as being the better butchers' beast as they stood.

HEREFORDS AND POLLED ANGUS were classed together and made a very nice showing of heifers, which were grouped with the steers (of which there were few and nothing striking), the F. W. Stone Stock Co., Guelph, winning first in both the two-year-old and yearling sections with good Hereford heifers, Walter Hall, Washington, coming second with Polled Angus, and James Bowman, Guelph, first and second in the under-a-year section with handsome heifers of the Aberdeen-Angus breed. In the three-year-old-and-over class of cows or heifers the Stone Co. won first, Hall second and third.

GALLOWAYS AND DEVONS showed together according to the classification, and the blacks won the first prizes in every section but one, A. M. & R. Shaw, Brantford, being the largest exhibitors and principal prizewinners, capturing first in the two-year-old section with the typical beef animal, Flora McEwin 2nd by McCartney, first in yearlings with the level and thick-fleshed Belle B. by College Gambler. W. J. Rudd had the first-prize calf under a year in his Devon Cracker Jack, a very smooth and well-proportioned youngster. The two-year-old Devon steer, Joker, which got into second place in the section for two-year-olds (for the good reason that only two entries appeared)—a leggy, narrow, cat-hammed "critter," though in good condition—was appropriately named, as the sequel showed, his carcass being awarded first prize in the dressed-meat competition by the butcher judges, whom, it was considered from their work, might well have registered from Bullock's Corners in the back townships, since they preferred the product of the class of cattle found there some fifty years ago.

GRADES AND CROSS-BREDS were by all odds the most interesting class in the cattle department of the show, most of the sections being well filled with a good type of cattle. In the two-year-old-steer section, James Leask, Greenbank, had the first-prize winner in the white son of the great sire, Moneyfuffel Lad, aptly named Champion, in advance of his record, for he was not only first in his class, but was also honored with the championship award as the best beast in the show, male or female. He was a beautiful animal, evenly balanced, thickly and smoothly fleshed, covered with the pliable skin and furry hair indicating an easy feeder, and showed good breeding in his general appearance. His weight was 1,840 lbs. at 2 years and 9 months old. This is probably the last we shall see at these shows of the progeny of the champion bull whose offspring have figured so successfully at the Winter Fairs in recent years, though we have been looking for the last for a long time, and there may be others, but they have certainly proved a splendid exhibition of the prepotency of a sire in producing ideal beef animals. The second award in this section went to a compact, low-set steer that would kill out with little offal, shown by R. J. Robinson, Ailsa Craig, and third

to a good Galloway grade. Pride of the Oaks, a model export steer, bred and shown by T. Lloyd-Jones & Son, Burford. Yearling steers were cut in, strong force, numbering nine entries, with hardly an inferior one in the lot, the first award going to a handsome, thick-fleshed, well-proportioned red steer bred and exhibited by Jas. Green, Fergus; second to one of similar stamp, and a close competitor, bred and shown by Jas. Leask and sired by the bull, Royal Banner, sold at one of Mr. Platt's Chicago sales for \$1,500. Third place was given a deep-bodied, sappy, good-feeding steer of grand appearance, shown by Jno. Dickieson, Eramosa. In grade steers under a year old, Fried & Son, Roseville, had the first winner, a handsome, full-fleshed son of Kinellar Stamp, N. H. Black, Rockwood, coming second with a thrifty and well-balanced roan, and A. McDougal, Guelph, third with a young calf of fine type, which should prove a hard one to down next year.

The most remarkable animal in the show was James Leask's three-year-old grade Shorthorn heifer, Bess, by Moneyfuffel Lad, weighing 1,900 lbs., and showing wonderful development of crops and brisket, with a strong, level and thickly-fleshed back, well-rounded and deep ribs, long, level quarters and full twist. She is a wonderful heifer and was never beaten save by her half-sister, Flo, the 1900 champion of the Winter Fair. James Bowman's Aberdeen-Angus grade, Miss Canada, a smoothly-formed and well-fleshed heifer, was the second winner in this section, and the third was Jas. Green's Shorthorn grade, Daisy, of a good sort. Leask was first again in the two-year-old-heifer class with Bell, still another of the get of Moneyfuffel Lad and full sister to bouncing Bess, the three-year-old above described. She is smooth, compact, evenly-fleshed, and will make a profitable killer. Fried & Son

cup valued at \$75, for the best single animal, the animals in each case to be bred and fed by the exhibitor, and the prizes to be won twice by the same person with a different animal before becoming his property. Both these prizes were won last year by Mr. James Leask, Greenbank, and the record was repeated this year by the same exhibitor, amid the cheers of a great crowd of the admirers of good cattle, a record of which any man might justly feel proud, and one on which we heartily congratulate Mr. Leask, who, as rightly remarked by Hon. Mr. Dryden, when presenting these trophies, is "an honor to his country." The pair of animals winning the Bell Organ Company's cup were the two-year-old grade steer, Champion, and the three-year-old grade heifer, Bess. The animal winning the Holiday cup was the white steer, Champion. Many were of the opinion that the wonderful massiveness and high finish of the heifer should, in a fat-stock competition, have carried her to the top, but the smoothness, mellowness and usefulness of the steer, coupled with the difference of about a year in the age, won the favor of the judges, who saw through the eyes of buyers and exporters, and decided wisely and well.

SHEEP.

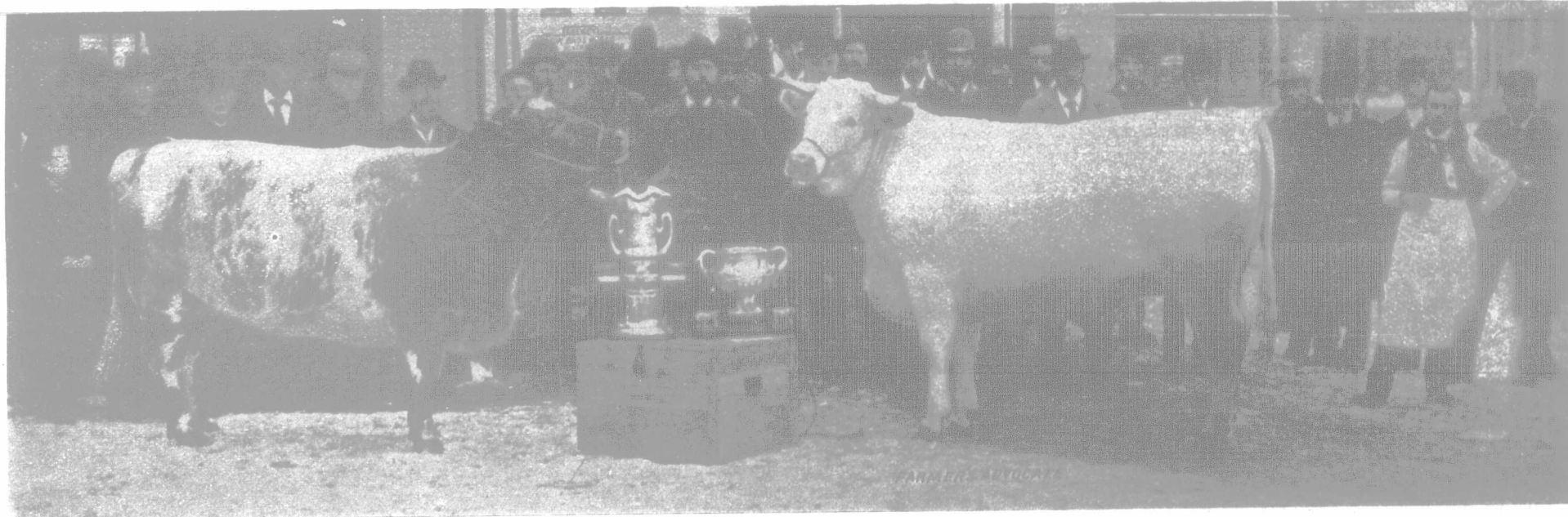
The show of sheep was good in all the classes, as it invariably has been at these winter fairs for many years. There were splendid models of mutton sheep in many classes, well bred, well fed, and well fitted. A number of new exhibitors entered the list of competitors this year, and some of them secured a good share of the best prizes.

The judges were: For Southdowns, Shropshires and Dorsets, J. C. Duncan, Lewiston, N. Y.; Cotswolds, Leicesters and Lincolns, Jas. Douglas, Caledonia; Oxfords, Suffolks and

appeared here for the first time at this show. In ewe lambs singly, John Kelly, Shakespeare, won first and second awards with capital lambs, A. & W. Whitelaw, Guelph, the other three with lambs of similar stamp. In yearling wethers, Orr & Lillico, Galt, were first; J. M. Gardhouse, Highfield, second, and Kelly third. Orr & Lillico were first, second and fourth in wether lambs singly, and Gardhouse third. Orr & Lillico were again first and second for three wether lambs, and H. Parks, Woodstock, third. Kelly was first in pen of three ewes under one year, Whitelaw second, John Haggard, Ranelagh, third, and D. H. Taylor, Corwin, fourth. In the carcass competition in this breed, Orr & Lillico won first, and Kelly second and third for yearling wethers, and H. Parks first and second for wether lambs.

OXFORDS.—In this class, which was well represented by typical animals of the breed, the exhibitors were Smith Evans, Gourcock; J. H. Jull, Mt. Vernon, and K. Finlayson, Campbellton. Evans winning first in single ewe lambs and wether lambs, first and second for single wether under one year, and first for three wethers under a year. Jull was first and second with yearling wethers, second with three wethers under a year, and third for three ewes under a year. Finlayson was first for three ewes under one year, and second, third and fifth for single ewes under a year. In dressed carcasses, Evans had the winning wether one year and under two, and Jull the second, while in wether lambs Jull was first and Evans second.

SHROPSHIREs were an exceedingly strong class throughout, the entries being full of quality and well fed. John Campbell won first and second in the ewe lamb section, Geo. B. Phin, Hespeler, coming in for third and fourth. In wethers, Richard Gibson, Delaware, was strong, as he usually is, in fat-sheep classes, winning



BESS AND CHAMPION.
Shorthorn grades, three-year-old heifer and two-year-old steer, winners at the Ontario Provincial Fair, Guelph, 1901, of the Bell Organ and Piano Company's silver cup, valued at \$250, for the best pair of fat cattle, the steer winning the Holiday cup, valued at \$75, and the championship as best animal in the cattle classes, any age or breed.
BRED, FED AND SHOWN BY JAMES LEASK, GREENBANK, ONTARIO.

were second with a good, big, useful heifer, and Geo. Kitching, Corwin, third, with another very good one.

EXPORT STEERS.—A very useful and commendable class of prizes were those of \$50, \$25, \$15 and \$10 offered for the best three export steers, to have been owned and fed by the exhibitor for at least three months previous to the show. Six uniformly good lots were forward. They were smooth, fleshy, well formed and well bred, averaging between 1,350 and 1,400 lbs., and one could not but wish that such were more commonly found in the country. The judges, Messrs. T. Crawford and Jos. Gould, export shippers, placed the first award upon what was clearly the ideal trio for the trade, shown by James Rennie, Wick, and sired by the Edwards-bred bull, Lord Hamilton, breezy-looking fellows, covered with mellow hides and soft-handling hair, with broad, deep bodies and full of flesh but not fat; the second place was given to a smooth lot of similar stamp but showing less breeding, shown by Major Hood, Guelph; third to the fattest and highest-finished lot, those shown by John Brown, Galt, which were highly-bred and exactly the right type, but, in the opinion of the judges, too fat to kill out profitably to the butcher. The first-prize lot were subsequently declared disqualified for competition owing to one not having been owned by the exhibitor a sufficient length of time to comply with the rules, and Major Hood's second-prize trio were moved up to first place, the next in order following and a second entry of Mr. Hood's falling into fourth place.

THE GRAND CHAMPIONSHIP.—Much interest centered in the disposition of the grand championship awards for the magnificent special prizes offered by the Bell Organ Company and Mr. Thos. Holliday, of Guelph, the former a silver cup valued at \$250, for the best pair of fat animals, any age or breed, and the latter a silver

Hampshires, J. L. Tolton, Walkerton; Grades and sweepstakes, Jas. Douglas and J. L. Tolton.

COTSWOLDS were entered to the number of 47, and made an excellent showing in every section, the exhibitors being John Park & Son, Burgessville; John Rawlings, Ravenswood; E. Brien & Son, Ridgetown, and J. C. Ross, Jarvis. The last-named exhibitor showed an exceedingly good pen of ewe lambs, on which he won the first, second and fourth prizes for single lambs, which were really among the best of the breed seen at these shows in recent years, being full of character and quality and in splendid condition. The third prize went to a right good one of Brien & Son's entries. The first-prize pen of three ewe lambs were also of Mr. Ross' contribution, the second going to Rawlings, third to Brien & Son, and fourth to Park & Son, who were strong in yearling wethers, winning the first, second and third awards with sheep of excellent quality and finish. Rawlings took the lead in wether lambs, capturing the first, second and fifth prizes with a capital sort, Park & Son coming in for third and fourth. In the dressed-carcass competition in this breed, Park & Son won all three prizes for yearling wethers and second and third for wether lambs, Rawlings winning the first.

LINCOLNS.—In this class the exhibitors were J. T. Gibson, Denfield, and Graham Walker, Hlderson, who both showed very excellent specimens of the breed, the former winning first and second for ewe lambs and yearling wethers, first for three wethers under one year and for three ewes under one year, and in dressed carcasses first for yearling wether and wether lamb. Walker won first and second awards for wether lambs under one year, and second for pens of three wethers and ewes under one year.

LEICESTERS were out in strong force, and of splendid quality and finish, entries being made by half a dozen exhibitors, some of whom ap-

here first in single yearling wethers, first and second in wether lambs, and first for pen of three wethers under one year. John Campbell was second in yearling wether lambs, T. Lloyd-Jones & Son, Burford, third, and W. E. Wright, Glanworth, fourth and fifth. Campbell was third and fourth in wether lambs, and Wright fifth. For three wether lambs, Campbell was second and Wright third. Phin had the second-prize pen of three ewe lambs and Wright the third. In the dressed carcass contest in this class, W. H. Beattie, Wilton Grove, won first for yearling wether, W. E. Wright being second, and Lloyd-Jones & Son third. In wether-lamb carcasses, Wright won first and second, and Lloyd-Jones & Son third.

SOUTHDOWNs.—There were half a dozen exhibitors in this class and the entries were up to a high standard of quality. In the single ewe-lamb section, John Jackson & Son, Abingdon, came in for first and second awards, Wm. Martin, Binbrook, being third and fourth, and T. C. Douglas, Galt, fifth. In yearling wethers, Telfer Bros., Paris, had a strong first, full of quality and firmly fed. W. H. Beattie had a good second, T. C. Douglas a worthy third and fourth. Telfer Bros. were again first in single wether lambs, Douglas second and third, and Martin fourth and fifth. For three wether lambs, Douglas was first, Telfer Bros. second, Martin third, and Jackson fourth. For three ewes under a year, Jackson & Son came first, with Martin second and Douglas third. W. E. Wright, Glanworth, won first in the carcass competition in this class for yearling wether, Douglas second and Jackson third. In wether lamb carcasses it was Lloyd-Jones & Son first, Martin second, and Jackson & Son third.

DORSET HORNS.—In this class, R. H. Harding, Thorndale, won, with good entries, the first prizes in each section, both alive and in the carcass competition, John Hunter, Wyoming, winning 2nd prizes for yearling wether, wether lamb, yearling wether carcass, and wether lamb carcass.

HAMPSHIRE AND SUFFOLKS were classed together, and were well represented by useful entries full of good flesh, the former being shown by Telfer Bros., Paris, who won first for single ewe lamb, and John Kelly, Shakespeare, who took second and third in the same section. James Bowman, Guelph, showed Suffolks, and won first and second in the section for yearling wethers and wether lambs, also first and second in both sections for dressed carcasses.

GRADES AND CROSSES.—This was an exceedingly interesting class, the entries numbering over 100, the crosses being various, and the quality, with few exceptions, of a high standard. John Campbell, Woodville, with Shropshire grades, led in the sections for yearling ewes and for yearling wethers, in which last he was also second, R. Gibson's entry being placed third, and W. E. Wright's (Glanworth) fourth. E. Brien & Son, Ridgetown, came second in yearling ewes, and J. T. Gibson third with a Lincoln grade. For three grade wethers under one year, Campbell was first, R. Gibson second, Orr & Lillico third. For single wether under a year, Campbell was first and fourth; A. Richardson, Peepabun, second, and R. Gibson third. For single ewe under one year, Hastings Bros. won first prize, John Campbell second and fourth, Richardson third.

In the sweepstakes competition for the best grade or cross-bred ewe or wether under two years, the only sweepstakes in the sheep department of the show, John Campbell won with a model mutton sheep, a Shropshire grade yearling wether, pronounced by many expert judges at Guelph the best mutton sheep out this year. Mr. Campbell's success in this class was very creditable, he having won with well-fed entries first award in five out of the six sections for live animals. T. C. Douglas, Galt, had the reserve number in the sweepstakes competition.

In the dressed-carcass competition for grades and crosses, the first prize in both yearling wethers and wether lamb went to John Brown, Galt, the second prize in each to R. Gibson, and third in each to W. E. Wright. The decisions of the judges in this division were exceedingly unpopular and were severely criticised, the feeling being that Mr. Gibson's entries were of much superior quality to the winners, which were lacking in finish and won only on their leanness.

SWINE.

Never before was so uniformly good a showing of typical bacon hogs in so many classes brought together at a winter fair in this country, all breeds showing vast improvement in the desired direction and judiciously fed and fitted. The judging was well and satisfactorily done by single judges throughout, the gentlemen officiating in the various classes being as follows: Poland-Chinas, Chester Whites, Duroc-Jerseys, and Essex, Thomas Teasdale, Concord Yorkshires and Tamworths, William Jones, Mount Elgin; Berkshires and grades, R. H. Harding, Thorndale.

BERKSHIRES were never stronger in numbers nor quality, the class being well filled in every section with lengthy, well-proportioned pigs, standing well on the best of feet and legs, with well-packed backs, smooth shoulders and well-filled hams. The breeders of this class show skill in their production, and do the country a good turn by standing firmly by their favorite breed. In a strong class of barrows over six months and under nine, Snell & Lyons made a capital showing, winning with first-class specimens first and fourth awards, second going to an excellent entry by Geo. Green, Fairview, and third to Durham & Cavan, East Toronto, who were first in the section for barrows under six months, Snell & Lyons taking second, third and fifth places, and Wm. Wilson, Snelgrove, fourth. In sows 9 months and under 15, Geo. Green had a worthy first in Highclere Sissy and got into fifth place with Snelgrove Queen, the second and fourth awards going to John Kitching, Corwin, and third to Wm. Wilson. In a splendid class of sows six months and under nine, Wilson secured first award with Willow Lodge Isabel, a sow of fine character and quality, second going to Green's Lady Lee, third to Snell & Lyons' Lady Coates, a fine sow of similar stamp to the first-prize winner, and fourth to Durham & Cavan. In sows under six months, in a very strong showing, Green came in first and fifth, Snell & Lyons second and third, and Durham & Cavan fourth. For pen of three pigs, offspring of one sow and bred by exhibitor, Green stood first, Snell & Lyons second and third, and Durham & Cavan fourth.

YORKSHIRES were out in strong force and of uniformly good stamp, the first award in barrows six and under nine months going to J. E. Brethour, Burford; second to R. J. Kerr, Mimosa; third to Colin Campbell, Guelph. Barrows under six months were led by an entry of H. Dedels, Breslau; second going to H. J. Davis, Woodstock; third to J. Featherston & Son, Streetsville. In sows 9 months and under 15, Brethour won with Oak Lodge Clara, second going to the same exhibitor for O. L. Pride, third and fourth to Davis for Countess and Woodstock Lass. Sows under six months were led by Brethour's Cinder-

ella, followed for second and fourth by Dedels' entries, third also going to Brethour. For pen of three offspring of one sow, Brethour was first, Dedels second, and Davis third.

CHESTER WHITES.—In this class, which was stronger than usual, and well filled with lengthy, well-proportioned pigs, the firm of Bennett & Pardo, Charing Cross, made a splendid showing of smooth pigs of excellent type, and secured the first award in every section of the class but one, and the second in five out of the six sections. D. DeCoursey, Bornholm, with capital entries, secured first in barrows under six months, second for pen of three the produce of one sow, and third for barrow over six months, for sow over nine, and for sow under six months.

POLAND-CHINAS made a good showing, and a new exhibitor here, Mr. R. L. Smyth, Fargo, brought out a capital lot of pigs, showing fine quality of flesh, with good length of body, smoothness of shoulders and fullness and firmness of hams. He was successful in winning the first prizes in every section of the class, including that for the best pen of three the produce of one sow. W. M. Smith, Scotland, stood in second in three sections, Smyth taking the other two seconds.

TAMWORTHS were out in strong force, and made an excellent showing of typical baconers, A. Elliot & Son, Galt, winning first in both sections for barrows, D. Douglas & Son, Mitchell, being second in the older section, and in sow six months and under nine, Douglas & Son were first with Lady Minto and fifth with Betsy, J. C. Nichol being third and fourth. In sows under six months, W. R. McDonald, Ridgetown, scored first, second and third, with excellent entries, while for a pen of three, the progeny of one sow, Douglas & Son stood first, Elliot & Son second, Nichol third.

DUROC-JERSEYS were well shown by W. N. Tape, Bentpath, who, with excellent specimens, won the first prizes in five out of the six sections, and three seconds. W. M. Smith, the other exhibitor, won first for sow 9 months and under 15, second for sow under six, and second for produce of a sow.

ESSEX were well shown by T. A. McClure, Meadowvale, and J. Featherston & Son, Streetsville, who had out lengthy, smooth, well-proportioned pigs, the prizes being nearly evenly divided by the rating of the judge.

GRADES AND CROSSES made a strong and very interesting class, showing capital quality and type, the prizes being widely distributed. In the section for barrows six months and under nine, first place was given to a Tamworth grade entered by A. Elliot & Son, second to a Chester White grade shown by Bennett & Pardo, and third to a Poland-China grade shown by W. M. Smith. In barrows under six months, the Chester White grade entry of Bennett & Pardo won, followed by a Tamworth grade shown by John Park & Son, and third to J. C. Nichol for a Tamworth grade. In sows six months and under nine, and also in the younger sow class, Elliot & Son won with the Tamworth cross.

EXPORT BACON HOGS.—In the very interesting class in which prizes were offered in both pure-breds and grades for the best pen of three export bacon hogs, there was strong competition. In the pure-bred section, J. E. Brethour won first with typical hogs, J. Featherston & Son second with a similar selection, both these entries being Yorkshires. Snell & Lyons were third with a capital pen of lengthy Berkshires, and J. R. Newell & Son, Crampton, fourth with Tamworths. In the grade or cross-bred section, A. Elliot & Son scored first with Tamworth grades, John Park & Son second with Tamworths, and T. A. McClure third with Essex grades.

In the class for the best three export bacon hogs, any breed, J. E. Brethour won first award with Yorkshires.

DRESSED CARCASSES.—In the class for dressed carcasses of pure-breds, J. E. Brethour won first with Yorkshires, J. Featherston & Son second with Yorkshires, D. DeCoursey third with Chester Whites. For three dressed carcasses of grades or crosses, first prize went to Alf. Hales, Guelph, for Yorkshire-Chester grades, second to T. A. McClure, third to John Park & Son.

For the best three swine carcasses, any breed or cross, Alf. Hale, Guelph, was awarded the first prize for his lean-meat hogs of Yorkshire-Chester grade, which were fed mainly on slaughter-house offal.

For the best pen of four bacon hogs weighing between 170 lbs. and 200 lbs., J. Featherston & Son won first award with Yorkshires, and J. E. Brethour second with Yorkshires.

It is proposed to build a farmers' elevator of 30,000-bushel capacity at Arcola, Assa. At a meeting recently held to discuss the project, the following officers were elected: President, John R. Meers; Vice-President, W. H. Bryce; Secretary, A. D. McLeod; Treasurer, John McLaren; Board of Directors, Wm. Hislop, John Stewart, W. Scarrow, S. McNair, John McEachon, H. McNeil, John Beggs, Walter Howey, Dan McLaughlin, Geo. Wooley.

Carcass Standard at the Fat Stock Show.

(From our Ontario and Eastern Edition.)

To the Editor "Farmer's Advocate":

While the judging in the live-stock classes at the recent Winter Fair at Guelph was the cleanest and most satisfactory all-round judging seen at these shows for many years, there being no friction in any department, I think many will agree with me that in respect to the standard set by the judges in the carcass competition, the question, Was it a proper standard? was the thought present with many and expressed by not a few, when the judges who made the awards were giving their reasons for their rulings in the lecture-room. Many present expressed strong disapproval of the standard set, and only one speaker sided with the judges. The latter considered that the judging of cattle and sheep should be from the bacon-hog standpoint. A little thought will soon show the fallacy of that argument, into which I will not now enter.

That the awards in cattle and sheep carcasses (I leave that of swine to those who followed the decisions in that department) were made from the local butcher's standpoint and his every-day trade was quite evident. But the question then comes up, Is it the aim of the fat-stock show to bring together animals of the ordinary kind and in ordinary condition, fit for the every-day shop trade? Or is the object the placing before the consuming public the best specimens of the breeder's and feeder's skill, to meet the demands of the special Christmas market at home and abroad, which will give the top price for the thick-fleshed and well-finished animals, while it may take such as the set standard at a second- or third-rate price? Surely we get enough of the thin-fleshed type, which markets everywhere at a medium price, without offering the inducement of prizes at fat-stock shows.

If the decisions at Guelph were correct, how is it that dealers catering to a high-class trade here and elsewhere are always ready to pay a superior price for the fleshy and ripe sheep or bullock?

The judges, while justifying their awards, laid a great deal of stress on the loss from fat in the ripe carcass. No one will dispute that one very fat carcass of beef hung up was just the opposite extreme from the one on which they had placed the first-prize ribbon. But the happy medium carcass, furnishing the tender, juicy, toothsome cuts, was placed lower down the list, with the reason given that it had a little too much fat.

Let us consider that a moment. Suppose an overplus of fat, say twenty pounds, could be found, what then? I do not know what the skeleton of such a thick-fleshed, 800-pound carcass would be, but will guess it at 80 pounds for convenience, and, further, we will allow the standard carcass at Guelph to have weighed 700 pounds, with no waste fat, but having the same weight of bone as the other. Then it follows that in the first instance we have 80 pounds bone, 20 of fat and 700 of flesh. In the other we get 80 bone and 620 flesh. In one we have 1 of bone to 8½ flesh, and in the standard carcass 1 of bone to 7½ flesh. In the first we have 20 pounds fat of some value, while the other has a larger proportion, in same ratio as bone, of sinew and other undesirable qualities. And reckoning both to be worth ten cents per pound, we find the flesh of the thick carcass, less the bone, costing the consumer eleven cents per pound, with the 20 pounds fat thrown in gratis; while that of the standard carcass costs practically the same per pound of clear flesh.

Which, then, of the two is the most desirable for the consumer? And it was much the same in mutton-carcass awards. At London, in 1899, the thin-fleshed ones won the ribbons. At Guelph, last year, the thick-fleshed muttons were given the awards, and especially so in the lamb classes, while this year the skinny ones were again set as the ideal. That was so to a certain extent in all classes, but more directly in the lamb-carcass competition, and more particularly in the grade-lamb class. And we need not wonder that mistakes were made in the sheep department, as not a carcass was cut up before the judging was done. That was a departure from all previous judgings at our Winter Fairs. Afterwards, when the cutting was insisted on, in the lecture-room, it was very clear to the interested onlookers that serious mistakes had been made. Even the experts who placed the awards could not justify their decisions to the satisfaction of anybody in hearing, and it might not be wide of the mark to state that the judges themselves did not appear well satisfied with their work. They were instructed in the prize list to make their awards from the breeder's and consumer's standpoint. Did they do so? It will be most interesting to many of the exhibitors to learn from the awarding committee how much consideration the breeder's standpoint had in the decisions rendered in the cattle- and sheep-carcass department.

JOHN CAMPBELL.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.
 2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest, or which appear to be asked out of mere curiosity.
 3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.
 4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

Veterinary.

UNTHRIFTY CALF.

A valuable pure-bred heifer calf was dropped on Feb. 15th; was fed on new milk until she was six months old, with a grain ration of about 2½ or 3 pounds of bran, oats and barley (equal parts), all finely ground; had all the clover hay, grass and green oats and peas she would eat; water ahead of her all the time; was inside in a dark box-stall, and had frequent runs outside for exercise. When I stopped giving milk, she did not drink much water, and gradually refused grain food altogether. I stopped offering grain, and substituted green corn and turnips. She ate those all right for a time, then refused them altogether. She seems very fond of old dry straw; will chew up her bedding if we are not careful. Lately I gave her seven ounces of Epsom salts and put her back on milk again; am giving her now about 20 pounds new milk fresh from the cow (ten pounds night and morning), with a teaspoonful of salt in each feed. She eats a little hay and a very small quantity of sheaf oats. The milk is taken ravenously. (1) Am I doing right in feeding the milk? (2) What is the matter with her stomach? (3) What must I give her to improve her appetite and digestion? She has never scoured.

J. G. H.

Ans.—Your calf was fed too highly, and did not get sufficient exercise. The functions of the digestive organs were overtaxed, and as a result the appetite became capricious. By careful feeding for a few months the organs may regain their normal condition. New milk is certainly the best article of diet you can give. Allow a limited amount of well-saved hay and roots in small quantities. Get the following prescription, put up: Powdered gentian, 1½ ozs.; powdered ginger, 1½ ozs.; powdered sulphate of iron, 1 oz.; powdered nux vomica, 1 oz.; bicarbonate of soda, 3 ozs.; miz, and make into 24 powders, and give one every night and morning, mixed with a little water in a bottle and given as a drench. Repeat the prescription if necessary. See that she gets regular exercise. As the appetite improves, increase the amount given, but be careful to not allow her at any time more than she will eat heartily. If you feed any grain, let it be ground oats and bran.

SWELLED LEG—UMBILICAL HERNIA.

1. I have a horse, six years old, that swells up in one hind leg, every night. It started from a bruise from a chain in the first place; disappears altogether when he is working, but swells very large when standing in the stable. Was fed very heavy last winter. What would you recommend?

2. Also a horse colt, about four months old, that has a lump in bag about as big as an egg. Sometimes it is bigger, and sometimes no sign of it at all. Several persons say it is a rupture; others, that it is simply water. First noticed it when colt was about a week old. What is your opinion, and will it get better?

W. S. F.

Ans.—The swelling of the leg is due to inflammatory action in the seat of the bruise, interfering with the circulation. When exercised, the circulation is stimulated and the swelling disappears. The application of a bandage to the parts during the time the horse is in the stable will prevent swelling, and if kept up for considerable time will probably dissipate the tendency to swell. If you do not require him for work, it would be good practice to give him a rest and blister the part.

2. Your foal has scrotal hernia, and if left alone, nature will effect a cure. It is probable he will be all right before he is a year old. If not, allow him to reach two years before castrating.

SWEENEY.

Kindly let me know, through the "Advocate," the best cure for sweeny or shoulder slip in a horse?

H. G.

Ans.—The best cure for sweeny is long rest and repeated blistering. Clip the hair off the parts affected and apply the following blister: One and one-half drams each powdered cantharides and biniodide of mercury, well mixed with 2 ounces vaseline. Rub the blister well in. In 24 hours, rub well again, and in 24 hours longer wash off with warm water and soap and apply a little sweet oil. Oil every day until the scale comes off. Keep her in a large box stall. Do not work her or allow her to run at large. Blister once monthly until the muscles regain their normal condition, which will probably be several months.

SUSPECTED RINGBONES IN COLT.

I have a colt, five months old, bred from a Thoroughbred sire and a very well bred dam. Its dam, however, has two ringbones, one on each hind foot. About a month ago the colt began to show signs of ringbone on the whole four. The two hind feet are swollen quite large and unshapely, and, to my judgment, is a clear case of ringbone. I called in a V. S., and when he examined he said he did not think it was ringbone at all, and thought it would be better to let it stand a month and probably the swelling would go down. But, as I do not feel satisfied, I thought I would write to the "Advocate" and have your opinion and advice.

J. W.

Ans.—It is possible your colt has developed ringbones all round, and as the dam has two, we may say that the colt came by them honestly. A colt of the breeding of this one with four ringbones would be practically useless, as even though they be successfully treated and the lameness cured, there will still be the enlargements, which will spoil his sale, and I presume he will not be valuable as an ordinary work horse. I would advise you to do as your veterinarian suggests. He, having seen the colt, is certainly better able to give an opinion than I. If, after a few weeks, the enlargements or swellings mentioned do not disappear, he will probably consider it wise to fire the pasterns. This certainly would be our mode of treatment after we had become convinced of the presence of ringbones.

CHRONIC COUGH.

My cows have had a cough for the last year or more. Would you please give me your advice as to a cure for it?

J. B.

Ans.—If you had described the state of health your cows were in, in addition to mentioning the cough, it might have been of material assistance to us. So many causes may account for such a condition; an incipient cough is often one of the first indications of tuberculosis. Feed crushed flaxseed or crushed oil cake (the former preferable) along with the other feed. The cows should be fed liberally. About one-third to one-half a pound of the former to one pound of the latter would be ample for a mature animal.

ENLARGEMENT ON COLT'S HOCK.

I have a highly-bred roadster mare, two years old, that got hurt when a yearling on the hind legs by dropping through a log bridge. Showed her to a veterinarian, who said she had a ruptured bursa on the front of the hock joint. It looks like a bone spavin, but is soft and like a bean in size. Have blistered it once, but has had no effect. What shall I do to remove it? BROCK.

Ans.—The veterinarian was right. Bone spavins are not soft. As the lump is nearly the size of a bean, I would advise you to leave it alone. Lumps of this nature in the region of a joint are very hard to remove. Repeated blistering may reduce it, and is probably worth the trial.



CHAMPION LINCOLN WETHER.

INTERNATIONAL LIVE STOCK SHOW, CHICAGO, 1901. PROPERTY OF JOHN T. GIBSON, DENFIELD, ONT.

SWELLED LEG—ECZEMA.

1. Please state, in your next paper, a cure for horse with a badly swollen front leg? Slipped when pulling.

2. Also, a mare with scurvy skin under mane, which is very itchy.

W. J. S.

Ans.—1. If the swelling has existed for some time and the inflammation has subsided, a blister should be applied: Cantharides, 1½ drams; lard, 1 ounce; mixed well together. Clip hair off the swollen parts and rub in the blister. Tie up the animal's head for 12 hours so that he cannot bite the parts. Apply clean, sweet lard to the blistered parts every day for 10 days, after the blister has been on two days. Rub the vesicant in well.

2. Make a solution of bicarbonate of soda, 2 ounces; water, 1 pint, and bathe the itching parts. If the mare is not in foal, give a physic ball of aloes (Barbadoes), 6 drams; calomel, 1 dram; soap sufficient to make a ball. Feed nothing but bran mashes for two meals previous to giving the ball, and allow bran until physic has stopped working. Give no hay during the purging period unless it is prolonged beyond 48 hours. After the purging has ceased, give one tablespoonful of Fowler's solution of arsenic in the feed once daily for three weeks.

MARE WHOSE LEGS SWELL.

I have a mare, seven years old, that is a little nervous and breathes very quickly; has been so for about three or four months; swells a little in hind legs when standing in stable. What is the trouble? Some of my little pigs became hump-backed and low behind shoulders when about two or three weeks old, and have not straightened out since weaning. What may be the cause, and cure?

C. J.

Ans.—The swelling of the legs can be prevented by giving the mare a purgative of eight drams Barbadoes aloes and two drams ginger, in a ball. Feed nothing but a little bran after administering the purgative until purgation commences; then feed lightly and give regular exercise. It is not possible to say whether the nervous trouble is congenital or the result of disease, without more definite symptoms.

The condition mentioned in your pigs, like many ailments in swine, is the result of digestive derangement. It can be prevented by allowing both sow and pigs regular exercise and giving laxative food, and, when necessary, purgatives of either Epsom salts or raw linseed oil.

STOCKING OF THE LIMBS—ATONY OF THE BOWELS.

1. A blocky half Clyde horse, well built, clean and healthy, but standing a little too straight on hind fetlocks, always stocks or swells when stabled. Can anything be done to prevent or cure?

2. Have a mare, coming five years old; not nervous or excitable. Was in fine condition last spring, but since is most of the time too loose in bowels, with some discharges of wind. Does not sweat or puff easily, but is rather thin. Teeth have been examined. Feeding timothy hay and five quarts of oats.

Ans.—1. The swelling of the limbs is a common condition in horses, especially in idle horses. The swelling may be an indication of weakness of the part or defective elimination of waste material by the kidneys. A few doses of diuretic medicine is generally sufficient, unless the cases are chronic. Give the following powders: Nitrate of potash, 4 ounces; powdered gentian root, 4 ounces. Mix, and make 12 powders. Give one in the feed morning and night. Careful bandaging to the swelled limbs is often beneficial. Report progress.

2. For the condition you describe, atony of the bowels, give the following: Exsiccated sulphate of iron, 2 ounces; powdered nuxvomica, 2 ounces; powdered charcoal, 2 ounces. Mix. Give one level tablespoonful twice daily in the feed.

DEBILITY—SUSPECTED RHEUMATISM.

I have a mare that will not keep her flesh on her. Whenever she is worked she sweats terribly, even in cold weather. Have dosed her for worms and given condition powder, but she seems to be naturally washy. Is there anything you can recommend me to give her?

I have another mare that is all drawn up in the hips. If left in stall two days can hardly use hind limbs at all. Feet seem all right. Would it be rheumatism? She had a colt last year, and after I took it from her, shut her up to fatten up a bit, and when I went to work her, that was the result. At present cannot do anything with her.

Ans.—The heavy sweats are partly due to the mare's debilitated condition, and also indicate that the sweat glands are doing more than their share in throwing off the waste material of the body. As the mare is supposed to be in foal, a purgative dose is entirely out of the question. I would recommend a cupful of raw linseed oil in the feed, three times a week; in addition, get a pint of Fowler's solution at your druggist's and give one tablespoonful in every alternate feed. If the mare carries a very heavy coat of hair, it would account in a great measure for the sweating. Have this mare's teeth examined by a competent veterinarian.

2. The symptoms of the lame mare are too indefinite for an accurate diagnosis. The trouble certainly might be rheumatic. Would advise you to get 8 ounces of nitrate of potash and 8 ounces of bicarbonate of soda and mix thoroughly. Give of the mixture one level tablespoonful in the feed, twice daily.

FATALITY IN PIGS.

My pigs have been getting sick. They breathe heavily; sides go in and out with a kind of a jerk. They are generally pigs from 50 lbs. to 100 lbs. weight. They stop eating, lie around, and generally die in about a week or two. Occasionally one will recover. It has not been a serious loss with me yet, but I have had more of it this fall than usual.

Ans.—Symptoms and results such as you mention in pigs are usually due to digestive derangement caused by overfeeding and want of exercise. Give each animal affected 4 to 8 ounces raw linseed oil, according to size of pig. If this should not cause purgation, repeat the dose in 24 hours. To those not affected, give a sufficient quantity of equal parts Epsom salts, sulphur and powdered charcoal, once daily in the feed, to keep the bowels open. See that the pigs get plenty of exercise, and when young, if possible see that the dam gets the same. Feed a few raw roots to substitute green food and keep a supply of sods for them to root through and eat. We have never known trouble of this kind to affect pigs that took regular exercise and were fed on laxative food.

CHRONIC INDIGESTION.

I have a two-year-old steer which is not thrifty. He began to lose flesh last spring before going on the grass. His hair is very dry, and he does not eat salt. Has no cough and not a very good appetite. Was fed pretty heavy when young.

Ans.—Give the following to the steer: 1 pound of Epsom salts, 4 ounces of common salt, 2 ounces ginger. Dissolve in three parts of tepid water and give as a drench. Give the medicine slowly and carefully. Give the following powders: Crushed flaxseed, 1 pound; sulphate of iron, 2 ounces; powdered gentian root, 4 ounces; bicarbonate of soda, 8 ounces. Mix, and give one heaped tablespoonful in the feed once daily. Start using two days after the other medicine has been given.

DEPRAVED APPETITE—PICA.

Can you tell me what is the matter with my cattle? Young stock not as bad as the cows. As soon as they are turned out of the stable they run for any old lumber or wooden stuff about the yard. I feed turnips and chop, about equal parts peas, oats and barley, one-half gallon per day to cows; also hay, chaff and ensilage. They seem to be doing fairly well, but they will stand and chew for hours at rubbish. Can anything be done to stop them?

Ans.—The behavior of the cattle is pretty good evidence that the demands of nature are not being filled. Do you give salt regularly? Mature cattle should get about 1 ounce a day. I take it that the stock are not being harmed by the habit. You might give each one a dose of Epsom salts, varying the dose according to the size and age, and then follow with a tonic powder as follows: Copper sulphate and iron sulphate, of each 1 ounce; powdered gentian root, 2 ounces; soda bicarbonate, 4 ounces. All well powdered and thoroughly mixed. One level tablespoonful once a day to the mature cattle, and from one-quarter to one-half the dose to the younger stock.

ROPY MILK.

I bought a cow last week, six years old, and she seems all right and in good health, and eats well; but one of her teats gives milk thick and creamylike, and looks just as if part of an egg not thoroughly mixed was through the milk from that teat. Is it some kind of disease, and what treatment, if any, is required?

Ans.—Milk such as described is sometimes seen as sequel to inflammation of the quarter, and sometimes is due to food of poor quality. Some cows are peculiarly predisposed to such conditions. If of recent occurrence, it is probable a cure can be effected, but if the condition has become chronic, treatment will be less satisfactory. Give the cow a brisk purgative of say 2 pounds Epsom salts and half ounce ginger, dissolved in 2 quarts warm water. After the bowels regain their normal condition, give 4 drams hyposulphite of soda night and morning. Bathe the quarter well twice daily with warm water, and rub well with the following liniment: Spirits of camphor, 2 ounces; oil of turpentine, 1 ounce; alcohol, 2 ounces; water, 4 ounces. If this treatment should not be followed by success, allow her to go dry, and the quarter will probably be all right when it again becomes active.

PARTIAL PARALYSIS IN PIG.

I got a young sow about the middle of October, about 6 months old, weighed 220 pounds, not very fat, had been fed before I got her on boiled pumpkins. I fed her barley, oats and mangels. When the weather got cold, she got stiffened up on the hind legs, had a hard time to get up, would drag her feet under her for 6 or 8 feet before she got up, could walk, but was very stiff. Doesn't seem to be getting much better. What can I do for her, and will she be all right for breeding from?

Ans.—The condition has doubtless been caused by a too sudden change of food, with want of exercise. Keep in clean, well-ventilated premises, reduce the amount of food, give sufficient raw linseed oil to purge (say 8 ounces), and if this does not act, repeat in 24 hours. Follow up by a little Epsom salts and sulphur daily, in food. If she is able to walk, see that she gets regular exercise; if not, hand-rub the hind quarters frequently. I see no reason why she should not be all right to breed from if she recovers the use of her limbs, otherwise I would not breed her.

CRIBBING.

I have a mare with foal, six years old, healthy and in good condition. I weaned her colt two months ago, and she started to bite the manger, and she is getting worse all the time. When she snaps the manger she grunts. It seems to put a kink in her neck, but she sucks no wind and she is chipping her teeth. What is the cause of it? What can I do to stop this?

Ans.—Your mare has developed into a cribber, which may be overcome by the use of a strap around the neck, buckled close up to the head. It is often the result of idleness. Would advise placing her in a box in which there is only the bare walls. If not in foal, a physic ball might tend to correct the trouble (see answer to W. J. S.), the ball to be followed with a bitter tonic, such as powdered gentian root, 2 ounces; soda bicarbonate, 1 ounce. Mix and make into 12 powders, one to be given morning and night in the feed.

RINGWORM.

I have cattle that have ringworm about their head and neck. Send me word what is the simplest way to get rid of it. Will human beings catch it?

Ans.—You will find that several of our advertisers have remedies on the market for parasitic diseases and would advise you to consult our advertising columns. The following also will prove useful: Iodide of sulphur, 1 ounce, lard 8 ounces. Mix thoroughly together. Take hot water and soap, and with a brush thoroughly remove the skin scales where the trouble exists.

then rub in some of the ointment. One form of the ringworm is capable of being transmitted to man; the ointment mentioned is useful in such cases.

CHRONIC DIARRHEA IN MARE.

Can you give a cure for looseness of bowels in an aged mare? She is in good flesh and has a good appetite.

Ans.—It is probable your mare's teeth are in such a state that she cannot thoroughly masticate her food, and diarrhea is the result. Have her teeth dressed by a competent veterinarian. The condition may be due to other causes, as feeding roots. Be careful to give good, clean, easily-digested food in reasonable quantities (some horses eat too much, and that sometimes causes diarrhea). To check the diarrhea, give 2 drams powdered gum opium and 4 drams each catechu and chalk, either in the form of a ball or shaken up with a pint of water and given as a drench every four or five hours until the diarrhea ceases. This will act as a temporary cure, but in order that the trouble will not recur, the cause must be removed.

PICA OR LICKING DISEASE IN COW.

My milch cows are tearing the shingles off my barn (shingles have been whitewashed), chewing old sticks and bones; have salt in their yard and spruce boughs for them to chew at; cows look well and milk well; feeding good clover hay three times a day in stable; good straw outside; small basket turnips twice a day; good well water to drink. Please tell cause and give remedy for the trouble.

Ans.—A condition known as "pica" or licking disease, which constitutes a symptomatic morbid type, rather than a pathological change, and in which symptoms such as you describe are present, is the result of the absence or insufficiency of certain principles, notably of nutritive salts, in the alimentary matter. This want of salts in the food may be due to peculiarities of the soil or the season, and is more frequently present during a dry season. I would advise you to give each animal a moderate purgative, say one pound Epsom salts, and follow up with two-dram doses of phosphate of lime three times daily. Dampen the food with lime water.

THOROUGHPIN IN COLT.

I have a three-year-old colt that was kicked on outside of hock joint about two months ago. It ran on pasture for a while, but swelling did not go away. I have been rubbing with camphorated oil and arnica, but it is getting like a thoroughpin. Advise treatment.

Ans.—If the enlargement is soft and puffy, a little in front of and below the point of the hock and showing on both sides, it is thoroughpin. Apply a little of the following with smart friction once daily, and have patience, as it sometimes takes considerable time to affect a cure:

Iodine crystals, 4 drs.; iodide of potash, 2 drs.; glycerine, 4 ozs.; alcohol, 4 ozs.

Miscellaneous.**FLAX ON NEW LAND.**

Having been a subscriber to the "Farmer's Advocate" for some time, I must say that I look forward to the coming of each issue. I intend settling in the West this spring, and would like your opinion on the question of flax growing.

1. Can flax be grown successfully on new breaking so as to harvest and backset the land in the fall?

2. What is the selling price of flax in the Territories?

Ans.—1. In a good many sections of the West flax can be grown successfully on breaking. The Menomites of Southern and Eastern Manitoba have for many years sown flax on any land broken before the first of June, seeding about half a bushel to the acre. It can then be backset after the crop is off. There are few farmers outside the Menomite reserves, however, that favor this plan, as it tends to encourage weeds and to dry out the sod so that it does not rot well. In fact, some people think that flax-growing is very bad for the land, but in our own experience we have not found any detrimental effects except from the encouragement of weeds, as flax is a very slow grower at the start and is a delicate plant, which gives the weeds a good opportunity to get ahead.

2. The selling price of flax this fall in Winnipeg is about \$1.15 per bushel. There is very little grown in the Territories, and we have not seen any quotations from Western points, but it would be Winnipeg prices, less freight.

SLIPPERY CEMENT FLOORS.

I have my barn floor cemented. It is so smooth that the cattle slip on it. Is there anything to prevent them from slipping? A. HANNA.

Ans.—We hear few complaints of this kind, though some workmen do not give cement floors as smooth a finish as others. In ten years' experience the writer has never noticed an animal slipping on the cement floor. The free use of bedding is perhaps the best suggestion we could make under the present circumstances.

HOME CHEESEMAKING.

I would like some hints on beginning cheese-making: (a) Does it only require rennet to make the curds? (b) How are they salted and colored (when coloring is necessary)? (c) What kind of press would you advise for a herd of eleven and twelve cows? (d) Would making the curd in a large barrel-churn spoil the churn for butter, if care were taken to scald it properly? I have been told that cheese can be made from the fresh separator milk. (e) Is it possible, or if not, how much cream would have to be returned to the milk? "AN OLD SUBSCRIBER."

Ans.—(a) Does it only require rennet to make the curds? Yes and no. Rennet is the only substance actually used, but rennet and milk without the skill and right conditions would make very poor curd. The milk should be ripened—which means the development of acid—before the rennet is added. Heat the milk to 84 degrees to 86 degrees F., then use "the rennet test." An eight-ounce glass graduate and a one-dram glass graduate are needed. To make the rennet test, fill the large graduate to the eight-ounce mark (accurately) with milk from the vat at 86 degrees F., add one dram of rennet of known strength, and stir rapidly for ten seconds. Note the number of seconds it takes to coagulate the milk. If coagulation takes place in from 20 to 22 seconds add the rennet at once. Ripen the milk sufficiently before adding the rennet so that the curd may be dipped in about three hours after setting. Add enough rennet so that the milk will

never do. In the first place the curd could not be properly cut, and in the second place it could not be properly stirred—two very important matters. It is not a question at all of the effect on the churn re future buttermaking. A small vat should be procured and a tin pan to fit it, with steam- or hot-water space under the pan to keep curd warm when necessary.

(e) Cheese from separator skim milk.—If your correspondent expects or desires to get and hold any reputation worth having, skim-milk cheese should not be made. Certainly, it can be made, but it is not wanted as cheese—it is of more use as bullets for rapid-firers. Always make cheese from whole milk. Add cream if you have a market for a specially rich cream cheese, but for the best Canadian Cheddar we are fully convinced that a milk of 3.5 per cent. fat is equal to all requirements.

MILK WITH UNPLEASANT TASTE.

Have a part-bred Jersey cow that is very healthy, and is fed well on hay, grass, and meal (dry). After calving, the milk for quite a long time tastes and is quite unfit for use, but this passes away and no return of the trouble occurs till she calves again. Please say what is the cause, and give a remedy. R. C. A.

Ans.—Some cows, and more often Jerseys, give milk of rather a bitter taste, especially just after calving. This may be prevented to a certain extent by giving a purgative of about 1½ lbs. Epsom salts and following up by 4-dr. doses of hyposulphite of soda twice daily.

JAPANESE MILET FOR PREGNANT MARES.

Will you, through your paper, advise me as to the use of Japanese millet for brood mares? Is it injurious if fed to brood mares? Or would it cause abortion in a mare? J. A. N.

Ans.—Japanese millet, if of good quality, can be fed with impunity, in moderate quantities, to pregnant mares, but should not be fed in large quantities. Oats, with an occasional feed of bran, is certainly the best grain ration. There is a danger of abortion in any case where digestion trouble occurs, hence it is wise to be very careful, and if heavier grain than oats be given, it should be fed in small quantities.

MOULDY SPOTS IN SILAGE—CONTINUED FERMENTATION.

Would you please give me information about corn in silo? I opened silo December 16th, and found it still hot. What is the reason for its keeping hot? How can I prevent it from keeping hot so long? I put it in silo almost as soon as cut in field. Would water on silo prevent heating? If so, when should it be put on, and about how much should be put on? How long should it keep hot after filling silo? Last season it was the same, with white mouldy spots through it. SUBSCRIBER.

Ans.—In answering a query of this kind, the editor would be assisted if our subscriber would describe his silo, as to depth, shape and diameter, and also as to the condition of the corn at the time of filling. The best authorities on silage agree that the white mouldy spots are due to the



PART OF THE 1901 IMPORTATION OF SHROPSHIRE SHEEP.
THE PROPERTY OF MR. W. S. CARPENTER, "MODEL FARM," SIMCOE, ONT. (SEE GOSSIP, PAGE 33.)

coagulate fit for cutting in from 15 to 20 minutes. This latter direction is for spring cheese, which will likely be the first you will be making. As the season advances, the time allowed for coagulation should be gradually lengthened to say 35 to 40 minutes in the fall. Do not depend on the nose or the palate in this part of the work.

(b) How is the curd colored and salted? By adding annetto (cheese-coloring) to the milk, say one and a half ounces to the 1,000 pounds of milk, depending on the milk and the season, and adding it before the rennet, stirring it well in. As to coloring or not coloring, be guided by the market where the cheese is to be sold. After cutting, the whey is drawn off and curds are placed in curd sink or rack on a linen strainer-cloth, where they drain and mat. In 15 or 20 minutes it can be cut into blocks 8 or 10 inches square, and turned several times. In factories, these are run through the curd-mill, which breaks them into small bits. These are stirred occasionally, and in about an hour and a half it is cooled to about 80 degrees and the salt is added. For a fast-curing cheese, about 2 pounds to the 100 pounds of curd is used; medium, 2½ pounds, and slow, 3 pounds. Use good dairy salt, spread evenly and stir frequently. Put to press when the harsh feeling has left the curd.

(c) Kind of press for herd of 10 to 12 cows—Get an upright press with a screw to do the pressing. The probability is a screw and hoop with followers could be had from a cheese factory that is renewing its plant.

(d) Making curd in barrel churn—This would

FEEDING WHEAT.

1. What amount of wheat would it take to be equal to a gallon of oats for feeding purposes.

2. Is wheat better ground or left whole for feeding. SUBSCRIBER.

Ans.—1. From reliable determinations of the composition and digestibility of wheat and oats, we learn that they contain, respectively, 785 and 598 pounds of digestible matter per 1,000 pounds of the grains. Therefore, one gallon of wheat (7.5 lbs.) would contain 5.89 pounds, and one gallon oats (4.25 lbs.) 2.54 pounds of digestible matter, or, less than half a gallon of wheat would contain as much digestible food material as one gallon of oats. But we know that oats contain a comparatively high per cent. of fat. If, then, we compare the two grains on the basis of their ability to produce heat in the animal body, we find that they stand in the relation of 3 to 1.4, and again, less than half a gallon of wheat is equal to one gallon of oats. Theoretically, wheat contains, pound per pound, a little more digestible food material than oats, but for some purposes oats may have as high a feeding value as wheat. Thus, for working horses, one pound of oats usually give even better results than the same weight of wheat, but when fed to hogs the opposite is true.

2. To guard against danger from indigestion, and to utilize wheat to the best advantage, it should be fed ground and mixed with other grains. Wheat should never be fed alone, but should be mixed with an equal quantity of bran or oats. Equal parts of wheat and barley have given excellent results as a hog food.

entrance of air into the ensiled mass of corn, which when put in may not have been evenly distributed. If the silage was made from corn somewhat immature or unwilld and the foregoing conditions existed, we should not be surprised at the heat in it now. The presence of air would furnish the necessary oxygen for fermentation, hence the heated condition so long after filling the silo. At this date the addition of water would not be, in our opinion, of any material benefit at this stage. If corn is ripe and dry when being put into silo, watering is a decided advantage, and the handiest method of applying water is to have a barrel standing near the front of ensilage cutter, with a spigot through which water in a small stream is sprinkled on the cut silage as it falls from the machine.

TO DISTINGUISH MALE FROM FEMALE IN YOUNG GEESE.

Will you please favor a constant reader of your valuable paper, through your columns, with a rule to distinguish a male bird from a female in a flock of young geese? M. W.

Ans.—As a rule, you can distinguish young males by the shrill notes they make when they call to each other. Separate them and they will call and answer each other, and the cry of the male is quite different from that of the female; and the neck of the male is longer and carried higher than the female; the head and bill are generally also larger, and, in fact, the whole frame of the male bird is larger and heavier than the female, but it is often very hard to distinguish them except by the harsh, shrill cry of the male when separated from the female.

ICE STORAGE HOUSE.

1. I would be glad if, in an early issue of the "Advocate," you would give an illustration and description of an ice house where the ice is stored without contact with sawdust and a cold-storage room is built under.

2. Can you give the composition of the shingle stain advertised as Creosote, and other stains for preserving shingles and wood exposed to weather, instead of using paint?

SUBSCRIBER.

Ans.—1. The general arrangement for any size of cold-storage houses may be as shown in the

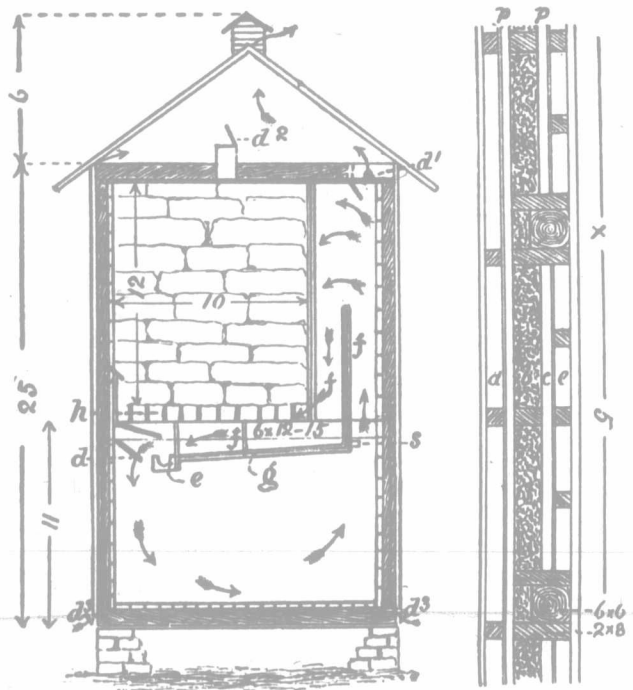


FIG. 68.—SECTION OF HOUSE. FIG. 69.—SECTION OF WALL.

illustrations, figures 67-70, which we reproduce from a new work called "The Ice Crop," recently published by Orange Judd and referred to elsewhere in this issue. Large houses, says the author, require a girder and posts under the center of the ice floor, and the air flues are best made double, one set at each side, with a drain on each side of the girder along the center of the room. The construction of the walls vary. Walls filled with sawdust, charcoal, tan bark or other non-conducting materials, have been in use for many years. Carefully conducted tests, however, have conclusively proved that a wall of this description is inferior to a wall which contains dead-air spaces, felt or paper linings, a section packed with mineral wool and an outer circulating air space. The wall shown in Fig. 69 gives good satisfaction. It comprises air spaces, A, which are open to the outer air at the sill and at the top open into the loft under the roof. Dampers D, in Fig. 68, are placed at the bottom, so they can be closed when desired. The next section, B, Fig. 69, is of dry sawdust, packed in place between walls of matched boards; the outer surface of these walls is lined with prepared waterproof paper. The inner section, E, contains dead-air spaces, which are about twelve inches square. The inner wall is of matched lumber, and the outer one is of weather boards. This construction keeps the sawdust dry, and the walls are free from dampness. The circulation of air through the outer-air spaces carries off the heat imparted to the weather boards by the direct heat of the sun. When the air is humid, or charged with moisture, these air channels are tightly closed. The thickness of the

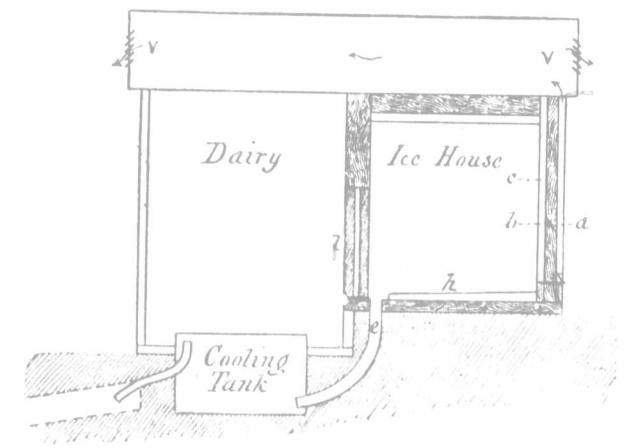


FIG. 71.—COMBINED ICE HOUSE AND DAIRY.

walls may be varied with the capacity of the building. Additional sections of filling and dead-air are required for large houses where large quantities of goods are refrigerated. Fig. 67 shows the ground floor.

The cold-storage house shown in the illustration (Fig. 70) will hold forty tons of ice, and do all the work required for dairy, fruit and domestic service on a large farm with one filling of ice. By regulating the dampers, D D, Fig. 68, the circulation can be adjusted to meet all conditions. When these dampers are closed the ice

wastes very slowly. The waste water, from meltage, is useful for cooling milk, and the milk-room and cooling vats can be placed alongside the storage house or made a part of the same building to advantage.

The floor between the two stories is arranged with openings through which the air chilled by contact with the ice descends into the storeroom. A flue conducts the warm air to the upper part of the chamber, when it is dried and purified by contact with the ice as it descends on being chilled. Drains and traps carry off meltage water and dampers in flues control circulation of air. Dryness in storage room is secured by a sheet-iron metal floor, usually galvanized iron, which forms a large pan or vessel in which meltage water accumulates. Water is very destructive of ice and must be drawn away.

Where the ice house and dairy are required without the cold-storage room, the plan shown in Fig. 71 is a good one. If a location on a side-hill is not conveniently at hand, the milk-room floor may be excavated sufficiently to secure proper fall for drain. The floor of the ice-house should be laid with hydraulic cement, and slope toward the end nearest the milk room. A cheaper floor is made from spent moulders' sand or coal ashes, mixed with enough lime to give a hard finish when dry. This makes a hard, durable floor. The water in the tank must be kept above the supply pipe from the ice house, to prevent any ingress of warm air. A trap placed in this pipe is a still better method. At L, Fig. 71, is a double door, through which ice can be taken out for the tank if required.

2. We are unable to learn the composition of the stain, but perhaps some reader can supply the information. Creosote itself is an expensive article, worth about 40 cents per ounce in the dry stores, but it has preservative properties.

FEED VALUES AND BALANCED RATIONS.

1. Could you publish a table of the feeding values of the different feeds, so that I may know how to make a balanced ration.

2. Is barley meal good for milk cows? I have been told it will make them go dry? W. J. S.

Ans.—1. The feeding values of all feedstuffs are arrived at by (a) finding the proportion of dry matter in 100 pounds of the foodstuff, and (b) finding the proportion existing in the dry matter between the digestible flesh-formers (protein) and the digestible fat-formers and heat-producers (carbohydrates and fat). The following table will show the dry matter in 100 pounds of the feed, and also the proportions between the flesh-formers and fat-producers, which proportion is usually termed the nutritive ratio. Such ratios are not to be considered, however, as feeding prescriptions for each and every animal, but only as indicators, a study of animal individuality being essential.

Name of feed.	Dry-matter in 100 lbs.	Protein.	Carbohy- drates. (ether drates. extract)	Fat nutritive ratio.	Nutri- tive ratio.
Wheat.....	89.5	10.2	69.2	1.7	1 to 7.1
Oats.....	89.0	9.2	47.3	4.2	1 to 6.2
Barley.....	89.1	8.7	65.6	1.6	1 to 7.9
Corn.....	89.1	7.9	66.7	4.3	1 to 9.7
Peas.....	89.5	16.8	51.8	0.7	1 to 3.2
Bran.....	87.9	12.2	39.2	2.7	1 to 3.7
Shots (middlings).....	87.9	12.8	53.	3.4	1 to 4.7
Clover hay.....	84.7	6.8	35.8	1.7	1 to 5.8
Timothy hay.....	86.8	2.8	43.4	1.4	1 to 16.6
Corn fodder (field cured).....	57.8	2.5	31.6	1.2	1 to 14.9
Silage.....	20.9	0.9	11.3	0.7	1 to 14.3
Turnips.....	11.4	1.0	8.1	0.2	1 to 8.5
Mangels.....	9.1	1.1	5.4	0.1	1 to 5.
Oil cake (old process).....	90.8	29.3	32.7	7.0	1 to 1.7
Straw (oat).....	90.8	1.2	38.6	0.8	1 to 33.6
Straw (wheat).....	90.4	0.4	36.3	0.4	1 to 93.

It will be seen from the above table that the nutritive ratios vary considerably, examples being easily procured of what are termed wide and narrow ratios. The straws show a wide ratio, 1 of protein to 33.6 carbohydrates and fat in oat straw, and 1 to 93 in wheat straw. On the other hand, clover hay, 1 to 5.8; peas, 1 to 3.2, and oil cake, 1 to 1.7, illustrate the narrow ratio quite well.

To illustrate the compounding of a ration, and how it figures out, the following amounts we will suppose as the daily feed of a cow:

Concentrates.	Dry matter.	Protein.	Carbo- hydrates and fat.
2 lbs. oats.....	1.78	.184	1.136
1 lbs. bran.....	3.52	.512	2.940
Roughage.			
8 lbs. clover hay.....	6.80	.544	3.168
30 lbs. ensilage.....	6.30	.270	3.870
12 lbs. cut straw.....	10.92	.144	4.848
Total.....	29.32	1.654	15.962

The nutritive ratio is obtained from dividing the sum of the carbohydrates and fats by the protein, the quotient being the nutritive ratio. Example: Nutritive ratio of above ration is (15.962 ÷ 1.654) 1 to 9.6.

2. Barley alone is not the most desirable food for dairy cows, but may advantageously be coupled with bran, oats and roots. Barley and oats grown together are most extensively used by the best European dairymen, in the proportion of about 1 to 2 or 2 to 3. Not only is barley a useful food for cattle, but it is one of the best pork-producing foods that can be used. More barley should be fed and less sold. There has been an unwarranted prejudice against barley as a stock food.

HENS LOSING POWER OF THEIR LEGS.

What is good for hens losing the power of their legs?
WILLIAM McKEE.

Ans.—There are no good reasons given in any of the poultry literature that I have ever seen for hens losing the power of their legs, and I never had but one case in my own experience. I once gave \$8 for the first-prize Light Brahma cock at the O. P. A. Show, and in two months he had lost the power of his legs and was useless. I attributed it to the fact that he had been forced with stimulating food since he was hatched and the change of diet had affected him. I would

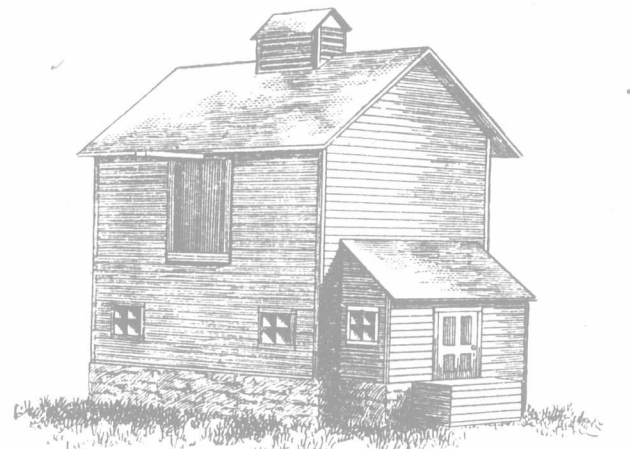


FIG. 70.—EXTERIOR VIEW OF COLD-STORAGE HOUSE.

advise feeding ground bone and bran; being full of phosphates, it may help the leg weakness. Give your hens plenty of exercise in scratching for their food, and keep them in a warm place where water will not freeze, and I don't see why you should have any more trouble with leg weakness.
JAS. ANDERSON.

Montreal Markets.

Montreal, Jan. 6.—There were about 800 head of butchers' cattle, three or four small calves and a dozen sheep and lambs offered for sale at the East End abattoir. Slow trade, with prices about the same as on Thursday's market. A few of the best cattle were sold at about 4½c. per lb., but they were not extra; pretty good at from 3½c. to 4½c., and the common stock at from 2½c. to 3c. per lb. Sheep sold at about 3c. per lb., and the lambs at about 4c. per lb. Fat hogs sold all the way from 5½c. per lb. for old sows up to \$6.60 per 100 lbs. for select, most of the sides being about 6½c. per lb., weighed off the cars.

Chicago Markets.

Chicago, Jan. 6.—Cattle—Receipts, 30,000; 250 Texans; slow and advance of last week lost; good to prime, \$6.50 to \$7.35; poor to medium, \$4 to \$6; stockers and feeders, \$2 to \$4.35; Texas feed steers, \$3 to \$5.

Hogs—Receipts, 43,000; bulk steady, close weak; mixed and butchers', \$6.10 to \$6.60; good to choice heavy, \$6.35 to \$6.70; roughs, heavy, \$6 to \$6.25; light, \$5.90 to \$6.30; bulk of sales at \$6.10 to \$6.40.

Sheep—Receipts, 28,000; sheep weak to 15c. lower, lambs weaker to 25c. lower; good to choice weathers, \$4.25 to \$5; fair to choice mixed, \$3.50 to \$4; western sheep, \$4.25 to \$4.85; native lambs, \$3.50 to \$6.10; western lambs, \$5 to \$5.80.

British Markets.

London, Jan. 4.—States cattle, 6½d. to 6½d.; sheep, 5½d. to 6d.
Liverpool, Jan. 6.—Canadian cattle, 6½d.; sheep, 5½d. to 6d.; trade better.

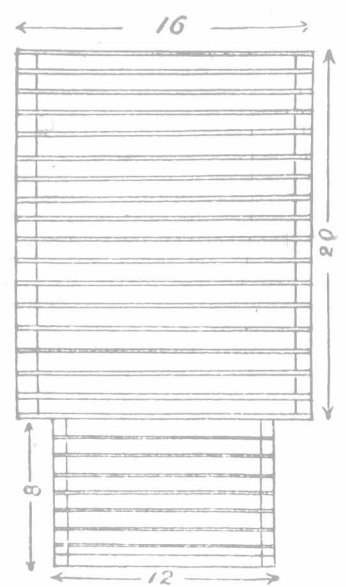


FIG. 67.—GROUND FLOOR.

Chicago Live Stock Trade in 1901.

The Chicago Stock Yards made a record year in 1901, receiving an increase of over 15,000 cars and more than 1,000,000 animals. Cattle receipts showed an increase over 1900 of 291,000, hogs 160,000, and sheep 488,000. Hogs, cattle, and horses sold higher and the average weight of cattle and hogs showed a decided decrease. Tabulated, the receipts for the year were as follows:

Cattle.....	3,030,000
Calves.....	183,600
Hogs.....	8,280,000
Sheep.....	4,000,000
Horses.....	109,000
Cars.....	298,000

The total valuation of all stock received during the year in the Chicago yards was \$300,000,000.



"A letter from a distant land, A cordial grasp from friendly hand, A happy day-dream, pure and fair, Though but a 'castle in the air,' A word that gives us courage new, A smile that beams as fair as true, A voice that hope and sunshine brings— How good, how true, life's common things!"

"The School Trustees -- The Teacher Talking Them Over."

The "Advocate" is doing good service in bringing before its readers, not only in Canada, but in all parts of Greater Britain to which it travels, specimens of the talent of our Canadian artists. Doubly valuable are these when they bring out, by local touches, incidents of daily life in our broad Dominion. Our picture to-day is by Robert Harris, Pres. R. C. A., a record of whose well-earned fame may be found on page 775 of the Christmas number of our paper. By simplicity of attitude, by naturalness of expression, by faithfulness to detail, Mr. Harris brings before us so clear a presentment of any scene he may paint for us, that words of explanation seem almost a superfluity. Our picture, for instance, tells its own simple tale. The young teacher has evidently caught the attention of the four kindly-faced, intelligent men who form the board of trustees of the country school committed to her care. Young as she is, she has the good sense to plead, not to dictate. Her arguments carry conviction

from the very earnestness with which she presents them. She speaks to them in their double capacity as fathers individually and collectively, each a father and head of a household, and all collectively as standing "in loco parentis" to the little family which sit in rows behind those roughly-made desks and dip their pens into those little stone ink-bottles from day to day. Nettie Brown (we may as well give her a name) knows just what she wants, and is fearlessly asking for it on behalf of her little pupils. She has come fresh from her own training, with her heart and head alike enlisted in the success of the good work to which she has put her hand. She says: "Education is not only that of the three R's; it is not just what can be got out of the spelling book and the dictionary. We want to train the hand and the eye; we want to get at the hearts of our children, and we want them to come to school, not because they must, but because they wish to do so. Your board gives us adequate supply for our actual needs. You never let the woodpile get too low down, and when the walls get very grimy, you do send the whitewasher to clean us up, but please let us have a few pictures to hang upon them, not only to beautify them, but to teach our little ones. Let us have a few shelves for our window plants, and a few tools, so that in their playground gardens our children may get a taste for gardening and vegetable culture, which will be laying a good foundation for their future lives. They won't want to be off to the cities if we make life in the country just as full of interests as it ought to be, etc." Nettie has told them that and a good deal more, and those kindly men are not going to say her "nay," all of which goes to prove that the men in the cities have not the monopoly of the common sense of the school boards of Canada

H. A. B.

Gazzam (looking up from the newspaper)—That's the longest sentence I ever heard of. Mrs. Gazzam—What? Gazzam—Fifty years. Mrs. Gazzam (who was once a school teacher)—It isn't a sentence at all. It has no verb.

THE QUIET HOUR.

A New Leaf.

"He came to my desk with a quivering lip— The lesson was done. 'Dear teacher, I want a new leaf,' he said; 'I have spoiled this one.' In place of the leaf so stained and blotted, I gave him a new one all unspotted— And into his sad eyes smiled— 'Do better now, my child.'"

"I went to the Throne with a quivering soul— The old year was done— 'Dear Father, hast Thou a new leaf for me? I have spoiled this one.' He took the old leaf stained and blotted, And gave me a new one all unspotted— And into my sad heart smiled— 'Do better now, My child.'"

Again I have the great pleasure of wishing all my dear "paper friends," as Kit calls them, a very happy New Year! This is a time for looking back and also for looking forward. Have we kept the good resolutions of last New Year's Day? What are our plans and hopes for the future?

There are two sides to everything, and we can always look on the bright side if we will. A good many years ago I was staying in a sanatorium in Dansville—a building nearly filled with nervous invalids. The most important prescription given to patients in that delightful institution was sunshine—physical and spiritual, outward and inward sunshine. We lived out of doors as much as possible; patients were forbidden to discuss their ailments and troubles. Most of us joined the "Bright Side Club," pledging ourselves to look on the bright side of everything. Rule III, read as follows: "It will be our aim to uplift, cheer and encourage all with whom we come in contact." Did we keep our promises? Well, perhaps not always, but we tried to do so sometimes. That is what I am trying to do now.

What has all this to do with the New Year? Simply this: To fret over the mistakes and failures of the past will only paralyze our energies.



Illustration by Harris.

"THE SCHOOL TRUSTEES -- THE TEACHER TALKING THEM OVER."

To start the year with the expectation of failure will take the heart out of our efforts. No soldier can fight with all his strength if he is sure of defeat. We may make mistakes, but it is possible to press even failures and sins into our service. St. Paul's manly and sensible advice is to forget the things that are behind, pressing forward to the things that are before.

Repentance is inspiring, encouraging us to try again, but remorse is crushing, dragging us down to the awful gulf of despair.

"Then begin the journey onward,
Knowing naught of fear,
Keeping sunshine in the heart
Throughout the glad New Year."

Do you remember how the three chosen disciples failed to stand by their Master, failed to help and cheer Him with their prayers and sympathy in His hour of awful agony? Did He overwhelm them with useless reproaches, or encourage them to make a fresh start, trying to do better the next time? "Rise, let us be going," He said to them, and the inspiring words speak with authority and power to us, His weak disciples to-day. We would not waste time in useless regrets. We are not told to go forward alone. With Him for a companion we can dare to mount the steep ascent to Jerusalem. Though the cross may be in the path, it is only a difficulty to be surmounted, not an end to the journey.

"From glory unto glory! Be this our joyous song,
As on the King's own highway, we bravely march along!
From glory unto glory! O word of stirring cheer,
As dawns the solemn brightness of another glad New Year."

Why should we be discouraged? Failure is impossible to those who are working for and with God. They may seem to fail, but what the world calls failure God may call victory—and He is the Judge. No matter how small the labor of love may be it is valuable in His eyes, even though it be only the giving of a cup of cold water. We have every reason, then, to abound in the work of the Lord, as we know that our labor is not in vain. Let us take the new leaf from our Father's hand thankfully, hopefully, and, above all, prayerfully, putting all our energy into the effort to make a fair copy of our Lord's beautiful life. The great thing is to aim right. If our great object is the attainment of worldly riches or honors, it is not surprising if we don't make much progress in holiness. A man may profess that he cares more for spiritual gifts; but if he devotes time, money and talents principally to the attainment of worldly advantages, it proves, as Robertson says, that he really thinks them more valuable, no matter what he may say. "The amount of harvest is proportioned to the seed sown. The harvest is a natural one. The natural result of intemperance is a body ruined and shattered. The natural result of miserliness is money and an unsatisfied craving for more. The natural reward of holiness is holiness and a craving for more holiness. One who aims at holiness will never be satisfied with riches. One who aims at riches would be disappointed if he were offered holiness instead. Seek and ye shall find what ye seek."

The only way to learn to do anything is by doing it; probably doing it very badly at first, but steadily improving day after day. "If you wish to learn to read, read; if you wish to learn to speak, speak; if you wish to learn to write, write. So, if you wish to learn how to assist the poor, assist them; if you wish to learn to do good, do good."

It is necessary to keep at it patiently and persistently, not giving up because our attempts fall far short of the mark.

Let us start this year in the spirit of David's servants, saying loyally: "Behold, Thy servants are ready to do whatsoever my Lord the King shall appoint." Then every day will be to us a glorious New Year's Day.

"Every day is a fresh beginning,
Every morn is the world made new,
You who are weary of sorrow and sighing,
Here is a beautiful hope for you,
A hope for me and a hope for you."

HOPE

Do a Kindness.

Do a kindness, do it well;
Angels will the story tell.
Do a kindness, tell it not;
Angel hands will mark the spot.
Do a kindness; though to story
It may grace, 'twill ring in glory.
Do a kindness; though 'tis small,
Angel voices sing it all.
Do a kindness; never mind
What you lose, the angels find.
Do a kindness, small or great,
'Twill come back in double weight.
Do a kindness, never fret;
No good deed has been lost yet.
Do a kindness, do it now;
Angels know it all somehow.
Do a kindness any time;
Angels weave it into rhyme.
Kindly deeds and thoughts and words,
Bless the worldlike songs of birds.

Selected

THE CHILDREN'S CORNER.

Picture Competition.

I must congratulate you, children dear, for this is the best competition we ever had. About 70 boys and girls sent in descriptions of the picture given in the Advocate of November 5th. Many of them were splendid. I only wish we could give a dozen prizes; but as that is out of the question, some who sent in very good papers will have to be satisfied with honorable mention. As the competitors were so numerous, they have been divided into four classes, according to age: Class I., 14 and 15; Class II., 12 and 13; Class III., 10 and 11; Class IV., 8 and 9.

The prizewinners are: Class I., Elsie A. Zavitz, Walnut, Ont.; Class II., Winnie Weekes, Woodgreen, Ont.; Class III., Martha D. Crowe, Beaver Brook, Col. Co., N. S.; Class IV., Charles Chapman, Donsview, Ont. (Did you write the story yourself, Charlie?)

Those deserving honorable mention are: Class I., Phoebe Thompson, Agnes Little, Florence Adams, Arden Lett, Frankie Fleming, Ethel Smith, Annie Shaw; Class II., Elma Hand, Mary Pinder, Abbie Alderson, Maggie Webster, Clara Kerry, Gladys Alway, Lillian Nixon, Annie Campbell, M. Amos, Sophia Cameron, Nettie Morton, Jessie Smith, Rebekah Stevenson, Arthur McKay; Class III., Hazel Wheler, Annie Bell, Eva Gallagher, Ella Mitchell, Emma Pennington, Roy Smith, Bessie Roberts, Louis Frankfurth, Elsie Clark, Myrtle Roberts, Emory Sibbald; Class IV., Effa Robertson, Florence Fortner, Russell Richardson, Norman Roberts, Francis McDade, Josie McArthur, Cecil Ylager.

Many of the other letters were fairly good, too. Of course, in judging them, the age of the writer, as well as spelling and handwriting, had to be considered. Through somebody's carelessness, a holiday letter from Annie Lamont, posted in September, only reached me a few days ago. It certainly deserves honorable mention. Better late than never, Annie.

COUSIN DOROTHY.

PRIZE STORY—CLASS I.

Tired Travellers.

In passing through the streets of the great City of London, we might see little boys and a great many people hurrying through the streets on their way to work in the morning. The poor little streeturchins, too, were there, many trying to make money.

One one particular corner stood a boy of perhaps ten or twelve years of age, with a hand-organ and a monkey. As we heard the hand-organ playing, we stopped our ponies and tied them up to a post, in order that we might do some shopping, and, besides, we wanted to hear the hand-organ and see the cunning little monkey.

We went into the shop, but when we came out, to our dismay the boy was gone. We said that we would find him anyway, for we wanted to hear the hand-organ and see the cunning little monkey.

We untied our ponies and started on again, and to our joy we saw the boy standing by a dismal-looking house, talking to a woman, who was his mother. We hurried our ponies and got there in time. We asked the boy to play on the hand-organ, which he did. After he had finished, we asked him what his name was and he replied that his name was Charlie Winter and his monkey's name was Dixey. We found, too, that that was his home, and he and his mother and monkey lived there; that his mother took in sewing and he played on the hand-organ to keep their home.

We then started off again and spent the day in town.

As we were coming home we remembered the poor little boy who had played on the hand-organ for us and we had not given him any money. But, as we were talking of this, we noticed him sitting on a stone wall and the monkey near him; both looking very tired and downcast.

We stopped and asked him what made him look so tired and downcast, and he replied that he was very tired; that he had played a great deal on his hand-organ and nobody had given him any money; that he wanted to get a Christmas present for his mother before he went home. We then gave the money to the monkey to give to his master, and both were overjoyed. The monkey was very tired, but acted as if he knew what was going on and treated us very kindly. Charlie thanked us, and he and the monkey started on toward the shops to get the present, while we went homeward, very happy that we had found the boy to give him the money.

ELSIE A. ZAVITZ (aged 14).

PRIZE STORY—CLASS II.

Weary Travellers.

It was a very warm day in July and an Italian boy was wandering along a very dusty road. The fields were looking scorched and withered, and many animals were lazily grazing in the inviting shade of large trees.

This boy, with his monkey, was going from X to the village of Y, where his parents lived. The road was beginning to be familiar to him now, and he soon came to a spring protected from the blazing sun by a house with lattice walls. Here he stopped to drink of the cool, gurgling water, and also to rest.

As soon as he had drunk all he wanted, he sat on the edge of the well to brood over his expected welcome. The monkey seemed to understand the spring was just what he wanted. At last the boy felt thirsty and was drinking.

In the new land he was standing in the street of his native village. As he was passing there, across a black building opposite, he was arrested by the low flutter of loots. At this sudden interruption he turned his eyes and saw a team of ponies approaching who were drawn by a small, fat, portly man, in which were a large cart and two mules. A woman, who was the driver, was carrying a large bundle on her back, and she was talking to the boy with her to get a ride. When

she made known her wants to her nurse, that lady immediately replied: "Perhaps your papa would not be willing for you to take such a ragged boy into his dining-room." "Oh! I do not think he would mind, because he would know I was doing a deed of charity." Thus spoke the kind little maiden. Accordingly, the boy was taken among the cushions.

On the way to the home of the little girl, she asked him his name. His name happened to be the same as hers. She did not think much of that, but her mother did. She admitted "that lots of people have the same names." Then the little boy was summoned and questioned about his parents. At last the truth became vivid. He was their son, and as he (the new attire) sat nestled in his mother's lap, was told how in the two years he had been absent they had been left some money by an unknown relative, and they had risen from the lowest grade to one worthy of a title.

His dream was now disturbed by the rumbling of a wagon in the distance. He opened his eyes, winked hard, rubbed his eyes, and wondering whether he was really in his mother's arms and dreaming or on the road. He at last came to the conclusion that he was in the latter. In his excitement he forgot he ever had a monkey, and got up with such a start that knocked the little animal over. And now, we will leave our "Rested Travellers" to vend their way homeward.

WINNIE WEEKES (aged 12).

The other prize essays will have to wait for our next issue.—C. D.

A New Year Message.

"When the year is young, and the heart is gay,
And the eyes are laughing and blue,
Then the world blooms happier every day,
And love is always true.
Then sing good cheer to the year that's here,
To the laugh in your eyes of blue,
To you and the glad young year, dear heart!
To the glad young year and you!"

The New Year comes to his inheritance. At the hour of midnight, into every home-keeping heart and into every homeless heart under the sun, he enters. Every land upon this earth watches his noiseless coming in reverential silence, from the untracked ice-mountains of the arctic to the hot, moist valleys of the tropics; white always, above him, shine those faithful ones, the stars, bending over him like so many hosts of guardian angels.

The echo of midnight bells comes sweeping over the hills and echoes again in your heart. Like the "horns of Eliland," there is a wily mysterious charm in those far-away bells.

"O hark, O hear, how thin and clear,
And thinner, clearer, farther going;
O sweet and far from cliff and scar,
The horns of Eliland faintly blowing!"

But these bells have the thrilling, stirring, bounding peal that only New Year bells can have, and your whole being seems to vibrate with a kindred chord. The joy of the "glad young year" is upon you.

How beautiful he is—this New Year! His face is rosy and fair and open, his little palms are soft and unsoiled, his feet have never known the sting of thorn nor the bruise of stone. He whispers to you of the blessings he holds for you—blessings of peace, joy, and victory. Then "sing good cheer to the year that's here," and rejoice in Him. Let the flickering flame of God-given purity and holy happiness in your heart blaze up and shine all around you; and pray, O pray, that no thoughtless mistakes, no grievous sins of yours may rob that face of one jot of its beauty, or leave one scar on the hands, or cause those tender feet to bleed.

But in your welcome to the New, forget not the Old. For at the hour of midnight, from every home-keeping heart and from every homeless heart under the sun, the Old Year goes out. Every land upon this earth watches his noiseless departure, like the passing of King Arthur, in reverential silence, while always, above him, shine those faithful ones, ready to carry him hence to his niche in the invisible catacombs of the centuries. The bells have a double meaning. Life and death brush each the other's garments in that strait-gateway of Time.

You have much to love the Old Year for. He has taught you many lessons. He has brought to you storms and buffetings—and peace. He has brought to you some great sorrow, and a hundred little clawing heartaches—and joy. He has brought to you conflicts and temptations—and victory. If you feel that none of these blessings has been yours in some measure, then you must be living under a false standard, and now he is trying to teach you one great lesson and bring to you one great blessing, namely, that "in the way of righteousness there is life; and in the pathway thereof there is no death."

"When the year is old and the rose of spring
Is buried beneath the snow,
And twilight fancies the shadows bring
As we dream in the fireside glow,
To the light that has shone thro' the year that's
gone,
To the tears in your eyes of blue,
To you and the sweet old year, dear heart!
To the sweet old year and you!"

CHRYSOLITE.

Why did the owl hoot? Because the woodpecker would peck her.

Why did the fly fly? Because it spied the spider food her.

Why did the robin pull raise her bill? So that the chicken might see her chin.

Why did Albert meddle? To make Victoria cross.

Ingle Nook Chats.

My dear Guests,—

"Tis midnight's holy hour, and silence now
Is brooding, like a gentle spirit, o'er
The still and pulseless world. Hark! on the winds
The bell's deep tones are swelling—'tis the knell
Of the departed year. No funeral train
Is sweeping past; yet, on the stream and wood,
With melancholy light, the moonbeams rest
Like a pale, spotless shroud; the air is stirred
As by a mourner's sigh, and on yon cloud
That floats so still and placidly through heaven,
The spirits of the seasons seem to stand—
Young Spring, bright Summer, Autumn's solemn form,
And Winter with his aged locks—and breathe,
In mournful cadences, that come abroad
Like the far wind-harp's wild and touching wail,
A melancholy dirge o'er the dead year,
Gone from the earth forever."

Day after day has passed by, each with its
measure of joy or grief, and again we are ushered
into the presence of a mysterious guest—a New
Year, with its three hundred and sixty-five days
all pure and un sullied by the touch of time, and
each fraught with wondrous possibilities of good
or evil. What shall we do with those marvellous
gifts? When the fair seasons shall in turn have
passed away, and time's revolving circle once
more shall find us on the threshold of another
year, shall we be able to present them undimmed
by earthly dross to form a shining gem in the
chaplet of the past, or shall their lustre be so
marred and dimmed by selfishness that we shall
blush to gaze upon them?

If we desire the first alternative (as we certainly
do) we must begin now to study how best
to accomplish that end. It seems a ponderous
undertaking, this resolve to do and be the best of
which we are capable for a whole long year, and
this is why we so often fail, because we have not
learned the secret of living one day at a time, but
are forever harassing ourselves with possible contingencies,
and while we make ourselves miserable
with fears for the future, we forget our good
resolves, fail in the present, and thus build a past
that will one day cause us regret.

Surely, for one short day, we can be what we
should wish to be; and that is all we are
required to do, for each well-spent day will bring
renewed strength for the combat of the morrow
and find us ready for the fray.

"Choose not the cross for the coming week,
For this is more than He bids thee seek.

"Bend not thy back for to-morrow's load,
Thou mayst leave that to thy gracious God.

"Daily 'only He says to thee,
'Take up thy cross and follow Me."

Serious, am I? Truly, it is a grave reflection
to know that so much of the happiness or misery
of this big world is dependent on each and every
one of us, for

"Our shadow-selves, our influence, may fall
Where we can never be."

But too much philosophizing might make us
melancholy, and here, at least, in this cosy realm,
no shade of sadness may be allowed to enter.
Then, while the saucy Frost King holds the outside
world in thrall, let us gather about the
glowing Ingle and make merry while we may. No
magic "open sesame" is required to gain admittance
to our circle, but a warm welcome
awaits all comers, old and new. Now just a few
words about

OUR COMPETITIONS.

I have received several papers on the "skeleton
rhyme" contest, but many of them are below the
average and do not show very careful work. These
contests are meant to be not merely amusing, but instructive
as well, but it remains with the competitors
to make them so. I should be pleased to see greater
evidence of earnest effort on the part of contributors.
Something for the puzzle-lovers will be found in

CONTEST XVII.

We offer three prizes for the largest correct lists
of names of animals to be found in the letters given
below, subject to the following conditions: The letters
may be read vertically, horizontally, diagonally,
upward or downward, backward or forward, but not
zigzag. The following are the letters as they are to
be used:

e l a n d
l i y n o
k a i n g
h m f o x
t a r a o a h z n
b d r o r
y e s n s
a e a p e
k r i r q

This contest will close on Feb. 20, and all work
for it should reach Pakenham on or before that date.
It is both simple and interesting, and I hope to have
a large number of contestants.

Wishing all my readers a New Year replete with
blessings,

THE HOSTESS.

Ingle Nook Chats, Pakenham, Ont.

The following message has come from the village
of Compton, W. Newbury, Berkshire Eng.,
from a friend of one of the staff of the Home
Magazine department of the "Advocate," in acknowledgment
of her Christmas box of the paper
for 1902: "I am delighted with the 'Farmer's
Advocate.' I have already had two copies. Our
Aunt has just seen them, and wants me to send
them to our village reading-room."

A New Year's Day in Toronto.

(A reminiscence of four decades ago.)

"How many old customs are dying out altogether
or have been replaced by new ones, that
of the at-one-time-thought indispensable complimentary
visit at New Year's, for instance," said
our great-Aunt Merriby as we gathered round her
for one of her "long-ago chats," as we called
them. "Why, when I first came to Canada and
made my home in Toronto, a shy bit of a bride
not long out of school, I was aghast at what I
was told would assuredly happen on the coming
New Year's Day. 'You must just sit up in
state,' they said, 'put on your very nicest dress,
smile your sweetest, look your bonniest, and dispense
your hospitality with as much self-possession
as you can possibly muster for the occasion.
You may have a girl friend or two to keep you
company and help you to receive your guests,
but it would be inadmissible for Tom to be with
you, for he is a man, and whilst all the men of
your acquaintance will be calling upon you, your
husband must be going to the houses of your
joint lady friends and be calling upon them.'"

"Why, auntie, that must have been fun! Fun
for you and fun for Uncle Tom, too!" said
Cousin Millie. "We should have enjoyed it,
should we not, Lottie? But we don't have such good
times nowadays." "A matter about which there
might now be two opinions, my dear," said Aunt
Merriby. "Then I had but one, and that was
that I wished that this special custom had never
been thought of, for what in the world should I
find to say to all those men, without Tom to
help me? 'But, cheer up, little woman,' he
had said, 'you have your old friend Katterina
from the Northwest with you already, and we'll
get what Polly in her cage calls 'Terry-don't-teaze-me'—that is, our merry Teresa—to help you
out. It will go hard with you if such a trio as
that cannot manage to come off with flying
colors.' When the eventful morning arrived, our
prettiest glass and silver, our nicest cake and
daintiest little rolls of bread and butter were
placed on a table in the corner, with grave
Katterina as its mistress of the ceremonies, myself
as hostess-in-general, whilst 'Terry-Teresa'
elected to be what she called 'promiscuous.' It
seemed to be the aspiration of every unit amongst
those visiting crowds which from 10 a. m. until
6 p. m. poured in and out of the drawing-rooms
(large and small) of the Toronto ladies of that
day to have at night each a bigger record than
the other of calls paid within the given hours.
Sleigh after sleigh would dash up to the door;
a stamping of feet to shake off the snow; a ringing
of the house bell, to which an 'open
sesame' response was ever ready; a clatter of
voices, a jingle of china and glass; A Happy
New Year to you, and to you, and to you, and
to you—and 'isn't this a glorious day, Mrs. Merriby?—
Don't you think, now, that Canada is
the jolliest country in the world?'—etc., etc.
Some of Tom's more especial chums who knew the
ways of the house would say, insinuatingly,
'You don't mind, do you, Mrs. Tom; we sent our
sleigh round to the office door—may we slip
through? It will save us half a block, and be no
end of a help, etc.' It seemed to me as if, like
the often-quoted brook, that stream of visitors
would 'go on forever.' At the ordinary lunch
hour there was supposed to be a hiatus, but
there was none to be counted upon. 'Girls, you
will get no sit-down meal till half-past seven, and
therefore you must make up with sandwiches and
cake, to be taken by snatches and standing,' and
that was how we managed. There was one rather
suspicious little exception to the general rule,
and that was that no less than three times Capt.
Tregarthen of the Artillery put in an appearance.
He excused himself the second time, somewhat
sheepishly, as he fished up his big fur gauntlet
from behind the coal scuttle, where it could not
have hidden itself without hands. 'I thought I
must have dropped it here, and came back to see,'
etc., etc. Well, having again got possession of
his property, why didn't the man go? But on
my putting that very natural question to that
teasing Terry-Teresa, she only vouchsafed me a
little toss of the head, as one who should say,
'How should I know?' whereas, who should
know but herself, for she must have seen him
poke that mit into its hiding place, with a very
shrewd guess as to the meaning of the manoeuvre?
A little after six, the last man having
seemingly gone, we gathered round our bright
open fire with our feet on the fender, talking over
the events of the day. Polly in her cage once
more wildly hilarious, the cover, which we had
christened her "deadly night shade" for the illusion
of its bedtime and the hour of silence its
use was meant to convey to that garrulous bird,
being removed at last. Again twanged the door
bell, and again the tall figure of the Cornish
captain loomed up behind our chairs. 'Oh! please,
please do not light the gas, Mrs. Merriby, I really
am awfully ashamed to put in another appearance,
but Tom told me I was to come and he will
be here presently; in fact, he sent me.' 'Oh!' said
said that sphinx of a Teresa, 'I thought perhaps
you had dropped something else, Capt. Tregar-

then, and had come again to fetch it,' which, as
it turned out, was just what he had done.
Another chair was drawn up, but somehow the
flow of talk ran more slowly outside the cage,
but from within, in Polly's gentlest accents (for
she had been trained to talk in moderately
human tones), came utterances so persuasive that
who could resist them—certainly not Capt. Tregarthen.
'Hearts are trumps. Yes, hearts are
trumps,' said Polly. 'Terry-don't-teaze-me,
Terry-don't-teaze-me,' reiterated Polly. Upon
these remarks, which might have no special application,
Polly rang the changes, but finally, in
a most insinuating voice, as one not quite
sure how the suggestion might be received, she
half whispered, 'Kiss Terry, kiss Terry-Teresa;
kiss dear little Terry!'

"I will draw a veil over what followed, but just
give you the climax. Capt. Tregarthen did kiss
Terry-Teresa, not only then, up in a corner where
he thought no one saw them, but ever so many
times since, for he married Teresa, and Polly,
'that blessed bird,' as they both called her ever
after, would almost convulse herself over the
'T's' and the 'R's' and 'the Gartha's'
with which she endeavored to explain her part in
bringing it all about. On the whole, that first
New Year's Day of my married life is one of the
pleasant memories of my younger days."

H. A. B.

A Skating Song.

Hurrah for the wind that is keen and chill,
As it skirts the meadow and sweeps the hill;
Hurrah for the pulses of swift delight,
That tingle and heat in the winter's night,
When over the crystal lake we glide,
Flying like birds o'er the frozen tide!

Hurrah for the lad with the sparkling eye,
For the joyous laugh and the courage high!
Hurrah for the health that is glad and strong,
So that life is gay as a merry song,
For the motion fearless, smooth and fleet,
When skates are wings to the flying feet!

Hurrah for the landscape broad and fair
Spread boldly out in the brilliant air!
Hurrah for the folds of the sheeted snow,
On the mountains high, in the valleys low!
Hurrah for the track where the skaters glide,
Fearless as over a highway tried!

Hurrah for the girls who skate so well—
Dorothy, Winifred, Kate and Nell!
Hurrah for the race we're bound to win,
And the curves and figures we mean to spin!
Hurrah for the joy that wings our feet,
When, like dancers gay, we pass and meet!

Who chooses may boast of the summer time,
Hurrah, we cry, for the frost and rime,
For the icicles pendant from roof and eaves,
For snow that covers the next year's sheaves!
Hurrah for the gleaming, glassy lake
Where the skaters hold their pleasure take!
—Margaret Sangster.

In Round Figures.

Not long ago a lady was giving a lecture.
Her subject was the human figure, and the requirements,
in the way of proportion, for beauty.
She herself was of generous—one may say
unwieldy—size, and her manner was supercilious and
lofty. She was trying to demonstrate the relative
sizes of the limbs as they really ought to be.

"For example," said she, "twice round my
thumb"—she held it up—"once round my wrist;
twice round my wrist, once round my neck; twice
round my neck; once round my waist."

Here she paused, and a shrill voice from the
audience exclaimed:

"Twice round your waist, once round Hyde
Park."

The lecturer hastily passed on to another
branch of the subject.

Scotch Proverbs.

Birth's good, but breeding's better.
Take a pint and 'gree; the law's costly.
He is worth no weel that can bide no wee.
Be the same thing that you would be called.
Every man at forty is a fool or a physician.
A dog winna growl if ye fell him wi' a bone.
Far sought and dear bought is good for ladies.
He that winna when he may, shanna when he wad.
Fair words break never a bone, foul words
many a one.—(Good Housekeeping.)

The Jeweller.

Oh, a right brave jeweller is he,
Frosty January!
He lugs with diamonds the great 'ole tree
Rich old January!
He strings his pearls along the eaves,
And when the sun the cold earth leaves,
He works all night while the children sleep,
And the elves of frost come o'er, FROSTY DEEP,
And many a shining word he weaves—
Gay old January!
Mary F. Butts

* Mrs. Nagsby, in pity for Nora, drop something
at once and come to me!
Nora: Yes, ma'am.
Mrs. Nagsby: Now what's the matter with you?
Nora: Once I dropped him, ma'am.

For Tommy.

(By Laura E. Richards.)

It was New Year's Eve, but the tramp did not know that. He was tired and hungry. He had been walking all day, and had not been well treated. At many houses he had been turned away without ceremony; at others work had been offered. Only one woman had taken him in and fed him for nothing, and she had given him soda bread, which always disagreed with him, and cold tea. The profession was not what it had been cracked up to be, thought the tramp, and he began to think that the burglar had the best of it, after all. He had always called himself an honest man, and had now and then split wood, when he could not get food without, but, after all, was honesty the best policy? He knew burglars who had their little homes, as neat and pretty as any one would ask to see. This very afternoon he had been walking with a burglar who was going home to have a cosy time with wife and child, and here was he, the tramp, an honest man, and not able to get a bite of supper. Decidedly, tramping was not what he had been led to believe it. He thought he should try stealing, after all; he stopped, full of thought, and looked around him.

A bright light shone from the window of a cottage hard by: the blind was up; the tramp stepped to the window and looked in. A neat, bright, cosy kitchen; a little old woman busy over the stove. No sign of masculine presence anywhere.

"I'll try here!" said the tramp. He opened the door, without knocking, and went in. The little woman looked up. "Good evenin'!" she said. "I didn't hear ye knock. What can I do for ye?"

"I want some money!" said the tramp, hoarsely, for he had made up his mind now.

"Well, I haven't got a cent!" said the little woman, "and if I had, I wouldn't be fool enough to give it to you. So there it is, you see! But you can do something for me!" she added brightly. "You've come just in the nick of time. I want this soup taken to a sick boy round in the next street. His mother is sick, too, and can't cook things nice as he ought to have 'em; hasn't means to get 'em, neither, I expect; and I set out that he should have something good and hot to go to sleep on, and begin the new year with nourishment inside him."

All the time she was talking the little woman was busy getting out a bowl and cover and finding a clean napkin.

"Here!" she said, and she poured some of the steaming broth into a small cup. "See if that ain't good! I guess likely 'tis."

The tramp gazed at her, but drank the broth and said it was good.

"Then you take this!" said the little woman. "Go round the corner to the fourth white house, and say it's for Tommy. What ye waitin' for?"

"I didn't come here to do errands," said the tramp.

"Yes, you did!" said the little woman, sharply. "That's just what you come for. I've been waitin' the past half hour for the Lord to send some one—I can't go out, at night myself, for fear of the asthma—and He's sent you. Reckon He knows what He's about!"

She pushed the tramp out, gently but decidedly, and shut the door on him.

"Well, I swan!" said the tramp. He carried the bowl safely to the fourth white house from the corner. Once, indeed, he stopped on the way and muttered to himself.

"Tommy!" he said, and his tone expressed deep injury. "You'd think they might have called him William, or something else. There's names enough, you'd think, without hittin' on Tommy. But that's the way! A man don't have no chance!"

A horse and buggy stood before the white house, and when he knocked the door was opened by a short, square man with "doctor" written all over him.

"What's this?" asked the doctor.

"Soup!" said the tramp, "for Tommy!"

"Who sent you, asked the doctor. "Old woman, brown house round the corner? All right! If she sent you I suppose you are a respectable fellow. Just jump into my buggy and drive to 140 Gage Street! Give this note to my wife—Mrs. Jones—and bring back the medicine she will give you. Hurry, now! I can't leave this boy, and I've been waiting half an hour for somebody to come along."

He nodded and shut the door.

"Well, I swan!" said the tramp, again. He pocketed the note and drove rapidly away. He did not know where Gage Street was, but a few questions put him on the right track, and after a drive of some minutes he drew up before a neat white villa standing back among shrubberies.

A lady answered his ring. She began to speak before she saw him. "Why, John!" she cried, "did you forget your key? I heard the buggy wheels—Oh, mercy! Who is this?"

The tramp gave her the note, which she read quickly.

"Yes," she said, "oh, certainly! I will get them at once. And while you are waiting"—she looked at the tramp doubtfully. "The doctor sent you—it must be all—I wonder if you would be so very obliging as to look at the furnace for me? Our man is gone off; I don't know where he can be, and I am sure there is something wrong. The house is cold as a barn, and I can't leave the baby more than a moment, and my girl is sick. If you would be so kind!"

She showed him the cellar door and ran to get the medicine.

The tramp stumped down the cellar stairs, shook the furnace thoroughly, put coal on and shut it up.

"Swannin' ain't in this!" he said. "This goes

beyond any expression I know. They don't give a man no chance!"

When he went up the fire was burning well, and the doctor's wife was waiting for him with a packet and a cup of hot coffee.

"You must be cold," she said. "And I am so much obliged—I cannot imagine where Thomas can be."

"You're a lady, mum," said the tramp.

On the way back he was hailed by a woman, who came to her gate with a shawl over her head.

"Say, mister, was you goin' anywheres near the post office?"

"Most probably I was," said the tramp. "I'm in the delivery business to-night."

"Then if you'd post this letter for me I'd be a thousand times obliged to you. It's to my son, and he'll fret if he don't hear from me New Year's Day. Thank you, sir! I hope your mother feels comfortable about you this cold night."

The tramp winced at this. He said nothing, but took the letter and went.

As he drove by a street lamp a rough voice called to him to stop. He checked the horse, and was aware of the burglar with whom he had walked and talked a few hours before.

"Hello, pal!" said the burglar. "You're in luck! Seems to me you was the feller that was goin' to stay an honest man, was you? And got a team already! That's smart business. Gimme a lift!"

The tramp grunted and shook his head.

"I'm on an errand!" he said, "for a sick child."

"Sick granny!" said the burglar. "You go shares, or I'll holler and give you up!"

He grasped the horse's bridle as he spoke, and his looks were ugly enough.

"All right!" said the tramp. "Jump in."

He threw back the robes and held out his hand. The burglar left the horse's head and was in the act of springing into the buggy when a well-planted blow sent him sprawling on his back in the road.

The tramp drove on rapidly. "Some folks ain't no sense of what's right and fittin'," he muttered.

"There's a time for everything. That's Scripture."

He found the doctor waiting at the door of the white cottage.

"Sharp's the word!" said the doctor. "I was getting uneasy, my man."

"So was I!" said the tramp. He explained that the hired man was gone, and the lady had asked him to see to the furnace.

"Gone, has he?" said the doctor, and his face darkened. "Then that's the last time. He needn't come back, the tippy rascal!"

Again he looked keenly at the tramp, who was shifting a buckle of the harness in a very knowing way.

"Know anything about horses?" he asked.

"Reckon!" said the tramp.

"Who are you, anyhow?" asked the doctor.

"Well, I was wonderin'!" said the tramp. "I took care o' horses five years. I been sick, and since then I've been trampin' a spell. To-night I started out to be a burglar, but I ain't had no chance. I might as well go back to work again, and done with it."

"I think you might!" said the doctor. "Come in and help me with this boy. He's pretty sick, and his mother's not much better."

"Well, it's all in the night's work," said the tramp. "I'll be dressmakin' before I get through with this."

He stepped inside, but stopped short at the bedroom door, with a white face. A child's voice was heard within, asking for water.

"Who's that?" asked the tramp, staring at the doctor.

"Whose voice is that?"

"Tommy's," said the doctor. "Tommy Trent."

"O my Lord!" said the tramp. "How did he come here?"

"His mother came some weeks ago," said the doctor, "to get work in the mill. Good, steady woman! She was doing well till she fell sick, and then Tommy took this fever. Nice boy, Tommy! Do you know anything about them? They seem to be quite alone. There was an older son, I believe, but he seems to have got into bad ways and gone off. Do you know anything about Mrs. Trent?"

"Reckon!" said the tramp. He hid his face against the wall for a moment; then he turned upon the doctor with flaming eyes. "Something's ben after me to-night!" he said fiercely. "Things is all of a piece! I don't say what it is. You may call it the Lord if you're a mind to. I shan't say nothin'! I tell you I ain't had no chance!" He put the doctor aside with one hand, and slipped noiselessly into the low room. "Tommy," he said, softly, "how's things?"

The sick boy started up on his elbow with a cry, looked, then fell back on his pillow, laughing and crying. "It's all right!" he said. "Mother, it's all right! I'll get well now! Brother Jim's come!"

"Reckon!" said the tramp.

A Friend in Need.

"My dear fellow, delighted to meet you. Just the very man I wanted to see. I wish you would kindly lend me twenty dollars. I unfortunately left my money at home and I haven't a cent on me."

"I'm awfully sorry, old chap, but I haven't that amount about me just now. I can fix it, though, so that you can get it almost immediately."

"Ten thousand thanks, dear boy."

"Here's ten cents. Take the street car and go home and get your money."

The Boy Kept Step.

The other day while waiting at a desolate way-station in Illinois for a train which seemed to have declared itself against schedule time and human patience, my attention was attracted by a man and a small boy who sat on a bench near the end of the platform. The man's face bespoke oppressive weariness, and the exhausted manner in which he leaned back against the station house showed that he had been subjected to some great strain. The boy was given to excessive liveliness. He found a large barrel hoop, and in turning it around for closer inspection, struck the man on the nose. Then, securing an old oyster can, he filled it with water from a neighboring puddle and poured it on a carpet-bag which some one had left on the platform. Then, wiping his hands on his clothes, he approached the man. The man sighed deeply and said:

"Run along now."

"What fur?"

"Because I don't want you here. No, I don't want you to put your arms around my neck," he added, when the boy had climbed up on the bench.

"I want to love you."

"Well, but you can love me without choking me. Look out; don't put your muddy feet on me."

"Why?"

"Because I don't want you to, that's why."

"Will people think you have been playing in the dirt?"

"Yes."

"Why will they?"

"Because they will."

"Why will they will?"

"Oh, get down and hush. You are sometimes the most foolish child I ever saw."

"Are you an Anarchist?" the boy asked when he had climbed down, not, however, without wiping his muddy feet on the man's pantaloons.

"Of course not."

"What is an Anarchist?"

"A man who tries to destroy the law."

"What law?"

"The law of the land."

"What land?"

"This land."

"This land right here?" pointing to the ground.

"Yes."

"What is law?"

"It's a—a—rule of civil—that is—look here, sir, are you going to hush and let me alone?"

After a short silence. "What is law for?"

"To make people behave themselves."

"Can I see the law if I go out there and look on the land?"

"No."

"Then how is it the law of the land?"

"I don't know. Hush."

"Then how do you know it is the law of the land?"

"I don't want to box your ears, but I'm afraid that I'll be driven to it."

"Box my ears because I talk?"

"Yes."

"And would you box my tongue because I hear?"

The man sprang to his feet and began to walk up and down the platform. The boy followed, attempting to keep step with him. After a while the man, glancing at his watch, muttered that the superintendent of the road ought to be hanged.

"Is he an Anarchist?" the boy asked.

"No."

"Then why ought he to be hanged?"

"Because he has no regard for the public."

"What's the public?"

"The people."

"Am I the public?"

The man wheeled around and walked away. The boy kept step with him. The man resumed his seat on the bench. The boy found an old shoe, put it on and began to "scuff" around on the platform, pretending that he was lame. Then, declaring that he was a horse, he began to gallop. The old shoe flew off and struck the man on the head, just as he had taken off his hat to run a handkerchief over the polished surface covering his mine of thought.

"I didn't go to do it," the boy exclaimed.

"Come here, sir, and sit down. Come here this instant. Sit down here, now, and don't let me hear another word out of you. This is the last thing you shall ever go anywhere with me. Do you hear? Hah, do you hear? Why don't you answer me, sir?"

"Because you said you didn't want to hear another word out of me."

The man sprang to his feet and began a nervous march up and down the platform. The boy kept step with him. (OPTIC READ.)

She—"You know, John, you promised me a seal-skin wrap and—"

He—"And you promised to keep my stockings darned, and you haven't done it."

She—"Well, you don't mean to say you'll break your promise on that account?"

He—"Well, it's like this—You don't give a darn, and I don't give a wrap"—Philadelphia Press.

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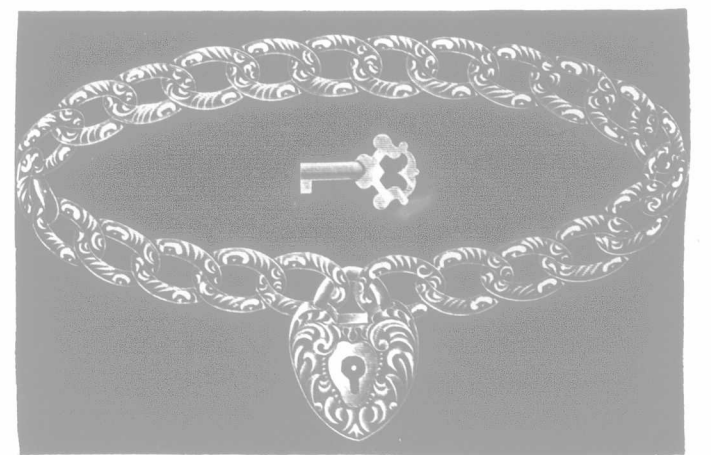
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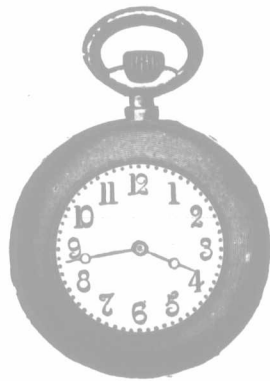
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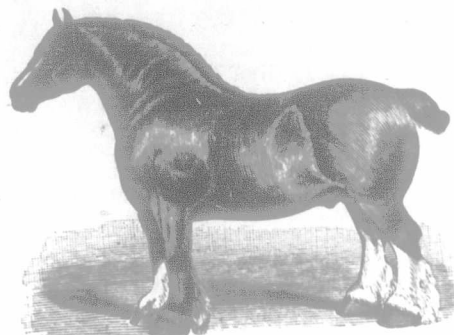
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Exceedingly well-bred mares, fillies, one (imp.) two-year-old stallion. Bulls, cows, heifers (all ages) from Caithness. Apply: PURVES THOMPSON, Pilot Mound, Man.

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APPLY TO T. M. CAMPBELL, "HOPE FARM," St. Jean Baptiste, Manitoba.

GOSSIP.

H. V. Clendenning, of Bradwardine, Man., is a student in attendance in the short course of the Wisconsin Agricultural College at Madison.

A joint stock company is being organized to erect a farmers' elevator at Snowflake. Those applying for incorporation are J. F. Drew, Robt. A. Garrett, S. Handford, Jos. Spence and Adam Maxwell.

A grain and poultry show was held in connection with the annual meeting of the Manitoba Agricultural Society. Following were the successful exhibitors of grain: Two bushels fine wheat—1st, Mrs. C. H. Brown; 2nd, R. Shelton; 3rd, Jas. McGregor. Bushel any other variety of wheat, named—1st, John S. Robson; 2nd, R. Shelton; 3rd, John E. Gayton. One bushel barley, six-rowed—1st, R. Shelton; 2nd, Jos. McGregor. One bushel white oats, named—R. Shelton. Half bushel flax—1st, Jas. Farley; 2nd, Jas. E. Law; 3rd, Jos. McGregor. In the poultry exhibition there were 38 entries, the strongest competition being in Barred Plymouth Rocks. The prizewinners were: Barred Plymouth Rocks—1st, W. E. Baldwin; 2nd, Jas. Law. White Plymouth Rocks—1st, John E. Gayton; 2nd, W. F. Crosbie. Hamburgs—Alex. Scott. White Leghorns—Jas. E. Law. Brown Leghorns—Mrs. Foley. Silver-laced Wyandottes—Jas. Berry. Best pen of birds exhibited, irrespective of breed—1st, John E. Gayton; 2nd, Mrs. Foley. Pair turkeys—1st, Jos. McGregor; 2nd, R. Owens. Geese—1st, Mrs. C. H. Brown; 2nd, Jos. McGregor. Pen Plymouth Rocks—John E. Gayton. Pen Wyandottes—Jas. Berry. Ducks—1st, Jos. McGregor; 2nd, W. E. Baldwin.

MACMILLAN'S GREAT STOCK SALE AT BRANDON.

Words will not do justice to the magnificent offering of live stock by J. A. S. Macmillan, Brandon, Man., which will come under the auctioneer's hammer on January 31st, at the Wheat City. Brood mares in foal, cows with calf, sows with litters or in pig will be included in the sale. The records of winners at the fairs attest to Mr. Macmillan's ability to pick, breed and exhibit live stock of exceptional character, and we are confident that prospective visitors to the sale, whether as buyers or on-lookers, will be surprised and gratified at the merit displayed before them. The strongest feature of the sale will be the Clydesdales, comprising brood mares, fillies and colts of the right conformation and irrefragable lineage. Animals have not been brought to the Roxey Stock Farm simply because they were cheap, or because they had good pedigrees, or because their conformation was attractive. Conformation and breeding had to go together, with the resultant effect that no better lot of stock has ever been offered to a critical Western public than will be offered on January 31st to the breeders and farmers of Manitoba and the Territories. In an offering embracing 25 or more registered Clydesdales, several Shorthorns and Berkshires, space will not permit a lengthy description of the animals. We mention a few, but would advise attendance at the sale and a personal inspection by our readers, so that they may judge for themselves.

Among the brood mares is Queen Natalie, now in foal and the mother of Montauk, the Bradwardine Syndicate stallion. She is by Imp Purity (3112), out of Natalie 5612, and through her dam traces to the noted Prince of Keir (1795). Natalie is well known to many of our readers as the mother of Pilgrim, the Winnipeg champion, 1900, now the property of Menzies Bros., Shoal Lake. Another mare of note is the brown Jenny, June 9057, by the great sire, MacLure (7023) (imp.), a full sister also in the sale being Mawsette, whose daughter, Princess Darnley (also in the sale list), will be an evidence of her worth as a brood mare. Princess Darnley is by Prince Darnley 7561. A mare of old-fashioned breeding is the six-year-old bay, Marguerite, whose list of male ancestors include such noted horses as MacFoppy (6709), McGregor (1487), Darnley (2222) and a pair of good bays and containing Prince of Wales (673), blood as the light bay aged mare, Carrie 7649. In the Patrick, that noted stud horse, is represented in the sale by Princess Handline, a dark bay four-year-old, with little white, a mare in foal, and, like the others, a safe investment. A son of Marguerite, Peter the Great, will be offered, and, as he promises well, having fine style and weight, should grow into money for his purchaser. The yearling stallion, Baron of Ayrval, by the well-known Nansen, out of Maid of Ayrval, will also be in the sale. This colt was first in the yearling class at Brandon, 1901, and was highly thought of by the judge, Mr. Birch, of Bowmanville. The Baron has developed since then and is a very promising colt. A big mare with considerable quality is the black Queen Macgregor, in foal, four years old, and by Stanley 7672. Several other good mares are included in which we will draw attention later.

The Shorthorn cows are by Aberdeen 2nd 21642 and are in calf to the Mare, field imported bull, Harry 21972. D. S. H. B. The pen of old-time, registered Berkshires, containing the field and of Chalmers 2829. A very fine lot of cows and some Hackneys are also in the sale. Remember the date and place and place it on your calendar for the sale, January 31st, at Brandon, Man.

Alex. Galbraith, Janesville, Wisconsin,

OFFERS FOR SALE AT

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An extra superior lot of Imported

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Also a few choice

Hackneys, Yorkshire Coachers and Percherons.

Every horse in the lot, without exception, is a prizewinner, and all thoroughly guaranteed. If interested, call and examine this superb lot of horses, or write for particulars at once to—



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80 HEAD TO SELECT FROM.

BERKSHIRES: Two boars at \$15.00 each (crated); sows in pig at \$25.00. Farm seven miles north of Winnipeg. Telephone connection.



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CLYDESDALES, SHORTHORNS, SHROPSHIRE, BERKSHIRES and YORKSHIRES.

Shorthorn herd headed by Judge, imp. Jubilee, and Ribbon's Choice. Ayrshires of the best quality; herd headed by Surprise of Burnside. Oak Lodge Mighty 7th and a large number of Yorkshires. The Berkshire boar, Victor (Teasdale), sweepstakes at Brandon and Winnipeg, 1900, and 30 sows of faultless conformation and superior breeding, make up the Berkshire herd. Farm one mile from the station. Visitors welcome. Prices and quality right.

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Herd headed by Sittytan Stamp (imported). Females bred from or tracing to Windsor (imported).

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Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale.

SHORTHORNS

I am offering three red bulls, one aged, of the heavy-fleshed type, also well-bred females. LEICESTERS of both sexes for sale. GEO. ALLISON, R. R. STATION, ELKHORN, C. P. R. Burnbank, Man.

SHORTHORNS FOR SALE

of Scotch breeding, seven bulls and forty cows and heifers, mostly all in calf or calf at foot. A few Clydesdales of both sexes. Geo. Rankin, Melrose Stock Farm, Hamlet, Man.

Shorthorns, Shropshires, Yorkshires. Buff Plymouth Rocks.

YOUNG STOCK OF ALL CLASSES FOR SALE. J. S. LITTLE, OAK LAKE, MAN.

SHORTHORNS

Gold Medal herd of 1899-1900. Bulls in service are: Noblemann (imp.) and Topsman's Duke. Some good young bulls for sale. J. G. BARRON, Carberry, Manitoba.



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He has left his hide in good hands. Send for our circular in reference to custom tanning. We send samples of work with circular.

CARRUTHERS & CO., TANNERS, and dealers in hides, wool, sheepskins, furs, tallow, etc., 9th Street, Brandon, Man.

Shorthorns and Clydesdales.

Six Shorthorn bulls for sale, sired by Indian Warrior 2nd and Sittytan Hero 7th, sweepstakes bull at Winnipeg in 1900 and 1901. Females of the best Scot families, headed by the best bulls (regardless of price) makes this herd second to none for breeding and quality. Correspondence solicited.

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10 bull calves for sale, 8 to 11 mos. old. 3 York-shire boars, fit for service. 1 Tamworth boar, fit for service. White Wyandotte cockers.

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HEREFORDS.

The range favorites. Good rustlers and feeders. Prizewinners, either male or female, for sale.

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Thorndale Shorthorns.

25 BULLS, and about 100 FEMALES, of all ages, to choose from.

JOHN S. ROBSON, Manitou, Man.

SHORTHORNS

Have sold all bulls of serviceable age, but have a few choice females to go yet. Prices right; pedigrees good; cattle typical.

Wm. McDonald, Pilot Mound.

Lakeview Stock Farm.

SHORTHORNS FOR SALE.

I am offering for sale bulls and heifers of good quality. Cheap if sold soon.

THOMAS SPEERS, OAK LAKE, MANITOBA.

SHORTHORNS. Persons wishing to purchase young stock of either sex will do well to call on us before buying elsewhere. Some youngsters of choice quality and breeding for sale at reasonable prices. Correspondence solicited. PAUL BROS., Killarney, Man.

CYPHERS INCUBATORS.

Gold medal at Pan-American; first at Winnipeg Industrial, 1900 and 1901. Ten years' guarantee.

POULTRY SUPPLIES.

Fresh cut bone, 3c lb. \$2.50 per 100 lbs. Cut lean beef, 3c lb. 2.50 " " Crushed oyster shells. 1.00 " " Sharp cut limestone grit. 1.00 " "

Also bone mills, shell crushers, wire netting, incubator thermometers, leg bands, and general poultry supplies. I keep acclimatized utility breeds of

TURKEYS, GEESE, DUCKS, CHICKENS, and have stock and eggs for sale. Incubator and poultry catalogue mailed free. 20 prizes, 2 medals, 1 diploma, at Winnipeg Industrial. Address:

MAW'S POULTRY FARM, WINNIPEG, MAN.

J. H. KINNEAR & SON, SOURIS, MAN., BREEDERS OF SHORTHORNS.

IMP. BARON'S PRIDE 28855 head of the herd. Three young bulls for sale, aged 11, 10 and 9 months.

Maple Grove Stock Farm SHORTHORN BULL CALVES FOR SALE.

From three months to eight months old. Sired by Lord Stanley 25th—29247—. Also have left a few

P. R. COCKERELS.
**WALTER JAMES,
ROSSER, MAN.**

15 miles west of Winnipeg, on main line C. P. R.

YORKSHIRES!

Boars all sold. A few sows left. Order at once or you will be too late. Some choice White P. Rocks and Pekin ducks. Address:

KING BROS., Wawanesa, Man.

For Sale: A Tamworth boar, fit for service. Also a fine litter of pigs, three months old. Apply to **LEWIS E. HUTCHISON,** Neepawa, Man. Box 56.

Pedigreed Improved Yorkshire Pigs.

Sows and boars, four months old, for sale.

YORK SHAW, MIDNAPORE, ALTA.

Chambers' Barred Rocks are winners. The shows prove it. Read the record. Has also Blk. Minorcas, Hamburgs, S. C. B. Leghorns, and S. L. Wyandottes. Eggs, \$2 a setting. See my exhibit at the next Brandon show. Stock bred by me is fit to head any yard. Write for particulars. **THOS. H. CHAMBERS, Brandon.**

MAW'S POULTRY FARM WINNIPEG, MANITOBA.

I keep acclimatized utility breeds only of the very best, and can supply you eggs guaranteed to arrive in good order. Mammoth Bronze turkeys, Toulouse geese, \$2.00 per setting. Very large, deep-keeled Pekin ducks and English Rouen ducks, \$1.00. English White Leghorns, \$1.00. Large pure White Wyandottes and Laced, great winter layers, great table fowl (they pay to keep), \$2.00. Plymouth Rocks, straight "Hero" strain. They are the ideal fowl. Cockerels, last season, weighed nine pounds. Great egg strain. Great winter layers. Eggs, \$2.00 for 15; \$3.00 for 30. Large illustrated catalogue mailed free. You want to keep poultry for profit? The varieties mentioned in this ad. will suit you. **M. MAW, Manager.**



KILLS ALL KINDS OF

Lice on Cattle and Horses.

It is simple in application, and very effective.

50c., 75c., \$1.50 & \$2.50 a Tin, sent to any address.

FLEMING'S DRUG STORE, Brandon.

E. J. C. SMITH,

Agent for Canadian Kodak Co.

Supplies of all Kinds.

Printing and Finishing for amateurs.

276 SMITH ST., WINNIPEG.

Send for Catalogue. Established 1892.

SOMERVILLE & CO.

Steam Marble and Granite Works, BRANDON.

Dealers in Marble and Manitoba Granite.

MONUMENTS, HEADSTONES, MANTELPIECES, CEMETERY FENCING TABLETS, ETC.

ROSSER AVE., BRANDON, MANITOBA.

Represented by W. Somerville, W. C. Stewart, A. W. Thomson, E. Patterson.

WHEN WRITING MENTION THIS PAPER.

GOSSIP.

A Western Grain Growers' Association is being formed at Indian Head. A well-attended meeting was held there recently, when a committee was appointed to draft a constitution and by-laws.

Wm. Maxwell, Moropano, Man., has purchased a registered Clydesdale mare from J. A. S. Macmillan, Brandon, Man. Fenella 9268 is one of the low-set, blocky, draft type of Clydesdales, and in her new owner's hands should prove a remunerative investment as a brood mare.

John Lippington, of Bredenburg, and Mr. Lingfield, Saltcoats, called at this office recently while going east on a purchasing tour to Ontario. Mr. Lippington intends purchasing half a dozen Clydesdale mares and to fill the balance of a car with Shorthorn heifers two and three years old to add to his already well-established herd of Shorthorns. Mr. Lingfield also purpases bringing some Shorthorn females and is on the lookout for a bull to head his herd. Being a believer in good stock, he is prepared to pay a good price for a really good individual.

The stallions imported to Brandon this fall by Alex. Galbraith, Janesville, Wis., met with such a ready demand that another importation was considered imperative in order to try and cope with the demand for good stallions in the Canadian West. That hustling salesman, Jimmy Smith, "Frae Aberdeen," is in charge and will exchange any of the horses imported for cash or good paper. The shipment consists of nine stallions and one mare, among them being that grand three-year-old horse, Gold Medal, illustrated in this issue. This horse is a dark brown, with some white on face and hind legs; is a thick, low-set, smooth horse and a good mover. In a hot class at the Chicago International he was placed second and might have been placed higher by some judges. Anyone wishing a sure thing for the showing should look this horse over. Medalist, a low-set, thick imported horse, sired by Patrician, out of Crosby Jewel, is a 1,900-lb. stallion, bay in color, and has strong, flinty feet. Another one is the four-year-old McBarnet, by McMartin, dam Madge of Airlieholm, dam of McTopper and McTinker, a hefty fellow, as is shown by his weight, which is 1,800 lbs. Earl of Blacon, the brown son of Montrave Kenneth, and therefore a grandson of the \$15,000 Prince Albion, is out of the McTregor mare, Countess, and is a draft horse, being well up to weight, topping the scales at 1,950 lbs. The mare is Queen Ethel, a light bay, big, six-year-old, by Cedric, the noted Holloway horse. She has raised two cracking foals. She is an actor, with lots of bone and quality, and is out of Dolly Dutton, a Highland winner. Young Blazer, the chestnut four-year-old bred by Peter Hood-y-Towa, represents that hardy, useful, light-draft breed, the Suffolks. Two French-bred horses, Wallace, a dark grey Percheron three-year-old, and the French draft, Amelon, make up a very useful and valuable consignment. Included in the lot is an aged Shire stallion, Czar 3995, bred in Ohio.

PUMPS THAT PUMP—H. Carter, of the Brandon Pump Works, writes us, under recent date, that he has had a remarkably good season in the pump business. The force of his pumps, and especially his 20th Century cattle pump, is reaching all parts of the West, and among recent sales is one to J. W. Colson, of Federby, French Columbia.

4 Great Books Free

The Practical Horse and Cattle Doctor,
The Family Doctor Book,
The American Family Cook Book,
Home Amusements for Winter Evenings.

These four valuable books, neatly bound in attractive paper covers, are offered FREE as an

Alternative Proposition

to subscribers to **The Weekly Tribune**. That is, subscribers have the choice of one set of our great premium pictures of the King and Queen or Duke and Duchess, or these four great books, together with

The Weekly Tribune to Jan. 1, 1903, all for \$1.00.

Remember these four valuable books will be mailed free to all subscribers who prefer them to a set of our great premium pictures. This is an offer that is without a parallel in journalistic experience. Get your names on the list early—the premium books or pictures are sent in the order in which subscriptions are received. Address all orders to—

The Tribune Publishing Co'y, WINNIPEG, MAN.

IN WRITING PLEASE MENTION FARMER'S ADVOCATE.

STARTLING SALE OF

Men's Heavy Underwear

\$1.25 PER SUIT. REGULAR PRICE, \$2.00.

The balance of a manufacturer's lot bought up at a specially low figure. These are being sold out at less than wholesale cost.

DON'T DELAY, SEND IN YOUR ORDERS EARLY.

Made of heavy-weight Canadian wool in plain natural colors. Beautifully finished. Strong wearing. In small, medium and large sizes.

THE HUDSON'S BAY CO., 178 to 184 MAIN ST., WINNIPEG.



BRANDON COLLEGE.

ACADEMIC DEPARTMENT—Three years' course leading to matriculation.
COMMERCIAL & STENOGRAPHIC—Complete business, shorthand and typewriting courses.
ARTS—General course of first and second years, and special course in mental and moral science of third and fourth years of the University of Manitoba.
THEOLOGY—Regular courses.
NEW BUILDING—RESIDENCE.

For calendars write the principal.

Rev. A. P. McDiarmid, D. D., Principal.

YOU CAN MAKE 12 TO 20 PAIRS PER DAY

THE IMPROVED MONEY MAKER

YOU CAN GET 10, 15, & 20¢ PER PAIR.

Guaranteed Reliable and—

A Complete FAMILY KNITTING MACHINE.

AT A SPECIAL AND LOW PRICE (A BARGAIN).

ADDRESS: **Creelman Bros.,** Box 503. Georgetown, Ont., Can.

H. R. H. THE PRINCESS OF WALES

Ogilvie's Hungarian Flour.
Ogilvie's New Rolled Oats.
Ogilvie's Whole Wheat Flour.
Ogilvie's Royal Breakfast Food.

ASK YOUR GROCER FOR **OGILVIE'S PRODUCTS** THE BEST THE WORLD PRODUCES



THE OLD RELIABLE.

LIGHTNING HAY PRESSES

HORSE AND STEAM POWER CATALOGUE FREE
KANSAS CITY HAY PRESS CO
439 MILL ST. KANSAS CITY MO

McCullough & Hubert, Secyrs., Eastern Dist. of Man. (Incorporated) 1000-1001
Corner St. Joseph and E. 3rd, Brandon, Man. Telephone 100-1001. Branch Office
at Regina, Sask. Catalogue sent 20 Cents. A. W. C.

Authorized Capital,
\$500,000.00.
 Head Office, Wawanesa, Man.

THE WESTERN CANADIAN HAIL INSURANCE COMPANY

How many out of each hundred farmers in Manitoba have ever suffered loss from fire? A very small percentage indeed.
 How many for that reason carry no fire insurance? Very few, we believe.
 This is evidence of good judgment. Is the same good judgment shown in regard to insuring against loss from hail? We think not generally, and in a later issue will tell you why we are of that opinion.
 Keep your eye on this ad. We want to get you thinking right on this subject, though we may not insure you.

JOS. CORNELL, SECRETARY AND MANAGER.

Canadian Pacific Rail'y

EASTERN EXCURSIONS

VIA THE
 Canadian Pacific Railway.

LOWEST ROUND-TRIP RATES TO ALL

Ontario Points

And MARITIME PROVINCES.

GOOD FOR THREE MONTHS.
 STOP-OVER PRIVILEGES
 EAST OF FORT WILLIAM.

Daily Tourist, & First-class Sleepers

These tickets are first-class, and first-class sleepers may be enjoyed at a reasonable charge.
 For full information apply to

C. E. McPHERSON,
 General Passenger Agent,
 WINNIPEG, MAN.

Manitoba Commission Co'y,

LIMITED,
 LICENSED AND BONDED.

Consign your grain and save middleman's profit. Perfectly reliable.

251 GRAIN EXCHANGE,
 P. O. BOX 1382. WINNIPEG.
 H. S. PATERSON, MANAGER.

UNION MUTUAL LIFE INSURANCE CO'Y,

PORTLAND, MAINE.
 (Incorporated 1848.)

DECEMBER, 1901.

Assets	\$ 8,482,038.00
Surplus Standard	586,040.24
Paid to policy-holders	32,738,402.97
Outstanding Insurance	50,191,853.00
New Insurance Written	10,988,132.00
Income	1,959,882.01

EXTRACTS from Directors' Report of business for the year 1900. Comparing the figures for December 31, 1900, with the standing on December 31, 1901, the period covered by the present administration, there appear these **SEVEN-YEAR INCREASES.**

Gain in Insurance in Force, 13,975 Policies; \$14,277,436 Insurance.
 Gain in Assets, \$2,028,728.44.
 Gain in Surplus, \$356,747.28.
 Growth of Annual Premium Income, \$610,975.17.

Insurance in Force in Maine Gained Premium Income in Maine 300.

A satisfactory increase, year after year, has been shown in dividends paid by the company during the above term.

Among the death claims paid during 1900 were 21, under policies aggregating \$36,500 of insurance, 21 of which had been kept in force by the terms of the MAINE NON-FORFEITURE LAW, the payment of premiums having been discontinued months or years before the deaths occurred.

Total payments under the MAINE LAW, 124 claims, representing in Insurance, **\$865,757.**

Address: A. D. IRISH, Manager, Grain Exchange Building, Winnipeg, Man.

GOSSIP.

The annual meeting of the Dominion Shorthorn Breeders' Association will take place in Toronto on Tuesday, 4th of February, 1902, and the directors' meeting the evening before. Other live-stock meetings will also be held during the same week, notice of which we hope to receive.

John Wallace, the Hereford breeder, of Cartwright, took seven head of Herefords to the International Show at Chicago, and although not successful in the prize-ring against the exceptionally strong competition there, he sold by private sale the whole seven head at satisfactory prices, realizing \$600 each for the two two-year-old bulls, and something over \$200 each for the bull calves.

Eighty horses were purchased in Brandon recently by Messrs. T. E. Kelly, Trotter & Trotter, and Jno. Fleming for the new Canadian contingent for South Africa. Dr. Cox was the inspecting veterinarian. The horses were, to use the inspector's words, of the cow pony type, and netted their former owners from \$75 to \$100 apiece. They were mostly Western-bred (in the Northwest Territories) and should wear like iron. Manitoba and the N.-W. T. can furnish hundreds of horses of a useful type for South African warfare. No trouble is experienced in procuring them if business methods are followed, the recent quick response to advertising at Brandon proving our contention.

Peninsular herd of up-to-date Chester White hogs is the property of Mr. Geo. Bennett, of Charing Cross post office, Ont. The farm lies in the County of Kent, about three miles from Charing Cross station on the Michigan Central Railway, and is the home of a herd of seventy head of as fine bacon-type Chester White hogs as Canada produces. The herd was founded on imported stock, and imported sires have been almost exclusively used, and have been selected for their individual excellence of conformation of bacon type. Mr. Bennett aiming to excel, and that he has succeeded is amply demonstrated by his extraordinary success at the late fall exhibitions. Exhibiting at seven of the fall shows, he carried off everything in the prize list in this class, and at the Winter Fair at Guelph, out of twenty entries he won six first prizes, five seconds, and three thirds, which is a record that is calculated to prove the superiority of Mr. Bennett's Chester Whites. The sales are enormous, hogs being shipped all over the Dominion. Mr. Bennett has superior shipping facilities, being able, from the favorable location of his farm, to ship on either the Michigan Central, Grand Trunk, Canadian Pacific or Detroit & Lake Erie Railways, so that no matter from what quarter an order comes, it can be shipped direct, thus effecting a great saving in both time and expense for the purchaser.

LOCAL AGENTS WANTED TO REPRESENT
 THE WESTERN FARMERS'
Live Stock Insurance Co.

HEAD OFFICE:
 ROOM 251 GRAIN EXCHANGE, Winnipeg.

Chartered by the Manitoba Govt. and the N.-W.T.
 P. O. Box 1382.
 D. PRITCHARD, H. S. PATERSON,
 President, Secretary.

DR. BARNARDO'S HOMES.

The managers of these institutions invite applications from farmers and others for the boys and youths who are being sent out periodically from their English training homes. The older boys remain for a period of one year at the Farm Home at Russell, during which time they receive practical instruction in general farm work before being placed in situations. Boys from eleven to thirteen are placed from the distributing home in Winnipeg. Applications for younger boys should be addressed to the secretary, 115 Pacific Avenue, Winnipeg, or P. O. Box 206, and for older boys possessing experience in farm work, to Manager, Dr. Barnardo's Farm Home, Barnardo, Man.

WHAT THEY THINK OF IT

Should Appeal to Westerners.
 I do not know of anything in the shape of a premium that should so appeal to the average man in this western country.—C. H. Spera, Port Arthur.

A Dandy.
 I think that your thermometer and barometer is a dandy. I am well pleased with it. I thank you very much for it.—Charles S. Yeo, Douglas, Man.

Sensible.
 It is both useful and ornamental; the most sensible premium I ever got with any paper.—D. McGregor, Forrest.

The Best.
 The best premium I have seen.—J. N. Johnson, Underhill.

Nothing Could Be Better.
 Where the weather conditions are so closely watched all the year round as in this country, nothing could be better.—David Elliot, Sourisford.

A Leader.
 I don't see how you can send it with such a good paper. But I look to the Free Press as a leader. Long may it prosper.—Thomas Speers, Oak Lake, Man.

Best Ever Sent Out.
 Best premium ever sent out.—John Parr, Bradwardine.

Never Anything Equal to It.
 Have been getting premiums from newspapers for the last ten years, and have never got anything to equal it.—Walter F. Poppel, Minto, Man.

All He Could Wish.
 It's all I could wish.—David Kirkpatrick, Sr., Kemnay.

All Right.
 It is all right; worth the subscription.—V. E. Caselman, Lauder.

The Best.
 It is the best I have received or seen since I came to this country.—H. Kolterman, Lacombe, N.-W. T.

Most Useful Ever Seen.
 It is the best and most useful premium I ever received or saw.—G. Ernest Gregory, Cochrane, Alta.

THE WEEKLY FREE PRESS

for one year and the combined **Thermometer and Barometer**, as referred to above, to any address for **\$1.00.**

R. A. BONNAR,
 Barrister, Notary Public,
 Conveyancer, Etc.
 Office 494½ Main St., Winnipeg, Man.
 Special attention to collections. Solicitor for "Farmer's Advocate," Winnipeg. 24-a-m

J. M. PERKINS,
SEEDS.
 221 MARKET ST.,
 Winnipeg.
 1902 Seed Annual ready Jan. 1st. Send for it.

VINCENT & MACPHERSON,
 The Leading Western Undertakers and Embalmers.
 Arrangements made for funerals in any part of Western Manitoba.
 School supplies, picture framing, furniture upholstery.
 Rosser Avenue, Brandon.

GOSSIP.

IMPORTANT SHORTHORN SALE IN SIGHT.

The announcement made by Mr. Robert Miller, Stouffville, Ontario, in an advertisement elsewhere in this issue, that on Feb. 5th he will sell at auction, at his farm there, 27 miles from Toronto, 45 head of high-class Scotch-bred Shorthorns, is one of more than ordinary interest to breeders and farmers generally throughout the Dominion, and will doubtless attract not a few from beyond the confines of our own country. Mr. Miller's widely extended experience, ripe judgment and acknowledged skill as a breeder and importer is a good guarantee that the stock comprised in this offering will be up to a high standard of excellence when he states his conviction that there is no cleaner or better bred lot of Shorthorns in Canada than those to be included in this sale, and that he will not put anything in it that is not perfectly right in regard to breeding, health and condition. A large number of the best of the popular Scotch families will be represented, and Mr. Miller assures us that the imported bulls and cows included would grace any herd. Orders for the catalogue will be booked as received, and the catalogue mailed as soon as printed.

THE HIGH PARK GALLOWAYS.

The herd of registered Galloway cattle owned by Messrs. A. M. & R. Shaw, High Park Farm, Brantford, Ont., ranks high among the best in America of this hardy, thrifty beef breed, in breeding, type and quality, representatives of the herd having won a large share of the best prizes at leading Canadian shows in recent years. The engraving on another page of this issue, of a bull and two heifers from this herd, will give an idea of the stamp of the cattle, though the photograph fails to do them justice. The bull now at the head of the herd is imported Viceroy of Castlemilk (7062) 19064, a model of the breed, low down, smoothly turned, and full of character, bred by Sir Robert Jardine, Bart., Castlemilk, Locherbie, Scotland. He was sired by Lodestar of Castlemilk, dam Lady Vaudeville of Castlemilk. He won the first prize and sweepstakes as best bull any age at the Western Fair at London in 1901, where the High Park herd also won the first prize, in addition to a large proportion of the other first prizes in the class. The handsome 2-year-old heifer in the engraving, Flora McErin 2nd, by McCartney, out of Flora McErin, won first at London, second at Toronto, and first at the Ontario Provincial Winter Fair at Guelph in 1901. And the yearling heifer, Belle B. 2nd, by College Gambler (a Toronto sweepstake), out of Belle B. of High Park, won second at Toronto and first at Guelph. These are but sample numbers of the High Park herd, which for breed type and quality of flesh and hair measure well up to the highest standard.

SHORTHORN HERDBOOK.

—Vol. 17 of the Dominion Shorthorn Herdbook has been received through the courtesy of the editor and secretary of the Association, Mr. H. Wade, Toronto. It is in two parts, containing the pedigrees of 4,065 bulls and 5,361 cows, or a total of 9,406, an increase of 2,582 more than in Vol. 16, which was the largest volume issued up to that time. The pedigrees of 126 imported bulls and 121 imported cows are included. Part I. contains the pedigrees of bulls and the breeders' and owners' index for both parts. Part II. contains the pedigrees of cows, the transferees and the list of members, numbering about 1,400. It is a very creditable production and will be appreciated by the Shorthorn breeders.

Annual Meeting of Dominion Draft Horse Breeders.

The 15th annual meeting of the Dominion Draft Horse Breeders' Society was held at Clinton, Ont., on Dec. 10th. For the first time in the history of the society, the president's chair was vacant, and the kindly greeting and wise counsel of the veteran president, the late Mr. John McMillan, were sadly missed by all.

The annual reports received and discussed were those of the delegates to the Canadian Horse Breeders' Association at Toronto, and the Western Fair, London; reports of the secretary, treasurer and auditors. From these it was shown that the work of registration, which for some years had fallen off, was again on the increase and the revenue had met the annual expenditure without impairing the substantial balance of nearly \$800 in the bank. A resolution was carried raising the standard of registration to five crosses of registered sires, to take effect Dec. 1, 1902, and stock imported for breeding purposes from the Old Country will be registered free.

The election of officers resulted as follows:
 President, David McIntosh, V. S., Brucefield; vice-president, S. Smillie, Hensall; secretary, James Mitchell, Goderich; treasurer, P. McGregor, Brucefield. Members of Council: Alex. Innes, Clinton; James Henderson, Belton; John Watt, Harlock; J. E. Blackall, V. S., Clinton; John McDairmid, Lucknow; D. M. Cole, Lakeside; John Busch, Sebringville; Geo. Stanbury, Clinton; Wm. Sinclair, Chisholm; Thos. Green, Mitchell; John Ketchen, Brucefield; C. E. Mason, Brucefield; John Amery, Clinton.

Messrs. Henderson, Innes and the Secretary were appointed delegates to the Canadian Horse Breeders' Association, and Messrs. Cole and Blackall to the Western Fair.

The Society enters upon its 16th year with renewed interest in its objects, and a financial basis not equalled by any other horse register in the country. It aims to afford a registry for horses of Clyde and Shire crosses, of which there are many in Canada, and from which breeding have come many of the animals which have given Canada a name for the draft horse not excelled perhaps by any other country.

45 Head Imported and Home-bred Scotch Shorthorns

of the best families and of the greatest merit

WILL BE SOLD BY AUCTION, ON

Wednesday, the 5th day of February, 1902,

BY

Robert Miller, Stouffville, Ontario.

Sale will consist of absolutely straight cattle of the most valuable ages and in the most valuable condition, of the following families: Cruickshank Village Girls, Village Blossoms, Lavenders, Brawith Buds, Broadhooks, Butterflies, Duchesses of Gloster, Floras, Nonpareils, and Secrets; Marr Missies, Claras, Princesses Royal, and Floras; Campbell Clarets and Minas.

THERE WILL BE NO RESERVE. ASK FOR CATALOGUE.

R. W. BARCLAY, WEST LIBERTY, IOWA, AUCTIONEER.

Stouffville is 27 miles from Toronto. Farm 1 1/4 miles from station.

GREAT DISPERSION SALE OF Shorthorn cattle, Cotswold sheep, German Coach fillies and Berkshire Sows.

I will sell by public auction, on Wednesday, 29th January, 1902, about 40 head of Shorthorns—26 females, 5 bulls, the rest calves. Also 19 Cotswold ewes, 4 ewe lambs; 3 fillies, by the German Coach horse, Amandus; 3 Berkshire sows. Stock in fair condition. Terms: 9 months' credit, on approved security, or 5 per cent. discount per annum.

Farm 10 miles south of Stratford, G.T.R. Teams will be at Stratford on morning of sale to convey intending purchasers to farm. Catalogues mailed on application after January 8th.

Capt. T. E. Robson, M.P.P. (Auctioneer.)
Chas. Youngs, Brookside P.O., Ont.

Howbury Hall, Bedford, England.

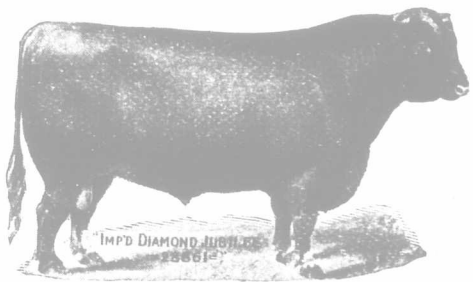
SALE OF MR. PLATT'S CELEBRATED ENTIRE PRIZE HERD OF

PURE-BRED

Red Polled Cattle.

JOHN THORNTON & CO. will sell by auction, on Wednesday, March 19, at Howbury Hall, Bedford, the famous prize herd of RED POLLED CATTLE belonging to James E. Platt, Esq. In founding this herd the choicest specimens were purchased from the late Mr. J. J. Colman, as well as from the very noted dairy herds of Lord Rothschild, Mr. G. Gooderham, and Mr. Garrett Taylor. The sale contains many beautiful and great dairy cows, including all the prizewinners at the Royal and principal shows. The herd is in an excellent breeding state and in a high state of perfection, most of the cows being forward in calf; in fact, the herd may be considered one of the most distinguished in the United Kingdom.

Catalogues may be had of JOHN THORNTON & Co., 7 Princes Street, Hanover Square, London, W., who will execute commissions and attend to shipment and insurance.



T. DOUGLAS & SONS, STRATHROY, ONT., BREEDERS OF **Scotch Shorthorns.**

100 HEAD TO SELECT FROM.

Offer for sale 20 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (imp.) Diamond Jubilee = 28861 =, at head of herd. Farm one mile north of town.

DISPERSION SALE BY AUCTION.

Attention is directed to the advertisement elsewhere in this issue of a dispersion sale, on January 29th, of Shorthorn cattle, German Coach fillies, Cotswold sheep, and Berkshire sows, the property of Mr. Chas. Youngs, Brookside, Ont., 10 miles south of Stratford station, G. T. R. We hope to give further information and particulars of the stock in our next issue. Meanwhile application should be made for the catalogue by those who are interested.

IMPORTED CLYDESDALES

For Sale—4 Imported Stallions and 1 Filly.

Ratepayer, bay, rising 6 years, the largest horse in Canada, sire Prince of Carruchan. **Coyton**, black, rising 4, will make a horse 2,200 pounds, sire Ethiopia. **Baltevain Fashion**, roan, rising 3, will make a horse 2,000 pounds or over, sire Prince of Fashion. **Choice Gift**, brown, rising 3, hind pasterns only white, will be a very large horse, sire Good Gift. **Jessamine**, brown, rising 3, a very fine mare, sire Gold Mine. Prices right, and must be sold. Apply to

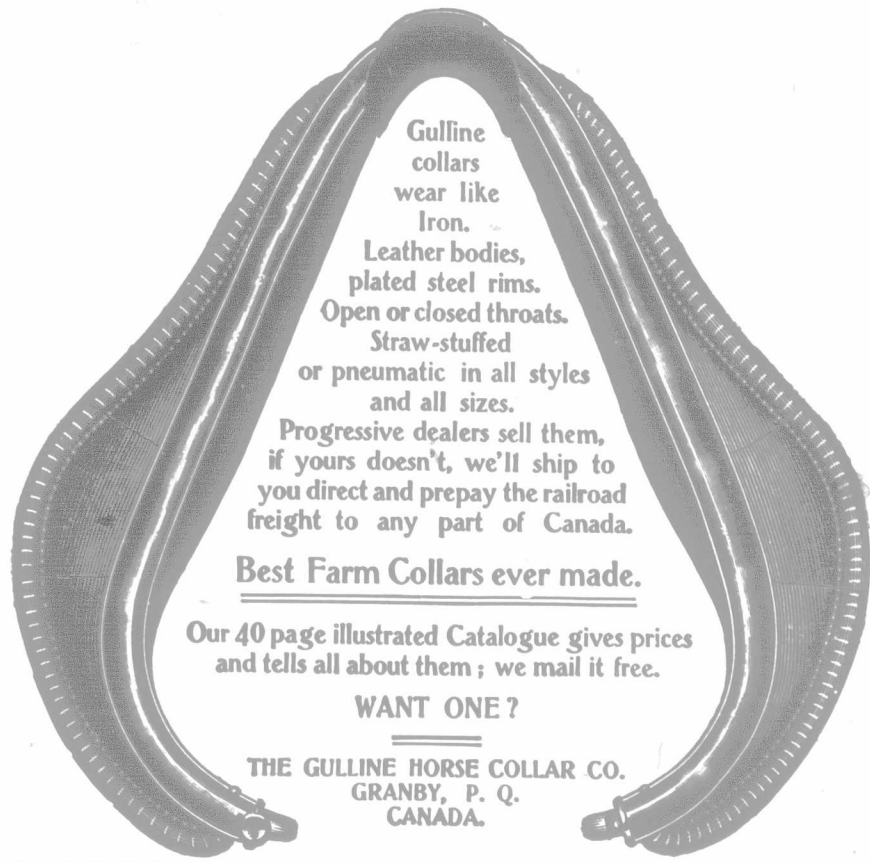
NEIL SMITH, BRAMPTON, ONT.

Shires, Shorthorns, and Leicesters.

Young stock of both sexes for sale. Imported Prince Louis = 32082 = heads the herd. Write for prices or come and see them.
John Gardhouse, Elghfield P. O., Weston, G. T. R. and C. P. R.

MODEL FARM SHROPSHIRE.

This farm, the property of Mr. W. S. Carpenter, is situated in the County of Norfolk, about one mile from the Town of Simcoe, Ontario, on the G. T. R., and is known as the Model Farm on account of it being awarded the Ontario Provincial Agriculture and Arts Association bronze medal for best-managed farm in North Norfolk in 1880, also the gold medal for best-managed farm in group No. 1. The farm proper consists of 300 acres of Canada's choicest farm land, on which stands commodious outbuildings of modern design, while the residence is a veritable mansion. Mr. Carpenter, although possessed of plenty of "the needful," still centres all his energies on his beautiful farm, and among his favorite occupations none affords him greater pleasure than looking after his magnificent flock of imported and home-bred Shropshire sheep. The flock, representatives of which are shown in the photo-engraving on another page, consists of about 116 head, of which 60 are breeding ewes, the balance being mostly lambs of both sexes. This year's importation consisted of 20 ewes and 2 rams, 15 of the ewes being bred by Mr. Philo L. Mills, Ruddington, Nottingham, and 5 from the noted flock of Mr. A. E. Mansell. The stock ram is of Mr. Mills' breeding, and is sired by Escutcheon 10333, by Court Favor, and going back on his dam's side to Plymouth Champion, who won the first prize at the Royal Show at Plymouth, and sold for 150 guineas. After purchasing this ram, Mr. Carpenter was offered an inducement to leave him where he was, which, considering his grand individuality and Royal breeding, is not to be wondered at. The bulk of the Mills ewes are sired by Scotland's Hero 10116, whose record as a prizewinner is first and championship at the Highland and Agricultural Society's Show at Kelso, first in pen of five rams at the Royal Agricultural Society's Show at Birmingham. He was bred by Mr. D. Buttar, Corston, Coupar-Angus. The five Mansell-bred ewes are sired by Dream-Star 8977, winner of second prize at the Royal and Shropshire and West Midland as a lamb, and second at Bath and West of England, and second in a pen of five rams as a shearerling at West Midland show. These Mansell-bred ewes are closely related to the great ram, Fortitude 9025, who, it will be remembered, is the sire of Fortification, who sold for 240 guineas. The other ram of this year's importation is a lamb bred by Mr. Edward Nock, and sired by Thorpe Chieftain 9724 by Endson Chief, dam by Carbon. It is very doubtful if a better lot of Shropshires left the shores of Great Britain this year than these, either individually, collectively, or from their rich pedigree breeding. The home-bred sheep of the flock are of Tanner, Fowler and Bird foundation stock, and very many of them are the equals of the imported ones in form, quality and covering. This flock, all through, are in the pink of condition, and are kept so throughout the year, so that whatever good qualities they possess are brought to the surface. This season's crop of lambs are a good even lot, and among them can easily be picked out prizewinners.



Gulline collars wear like Iron.

Leather bodies, plated steel rims. Open or closed throats. Straw-stuffed or pneumatic in all styles and all sizes.

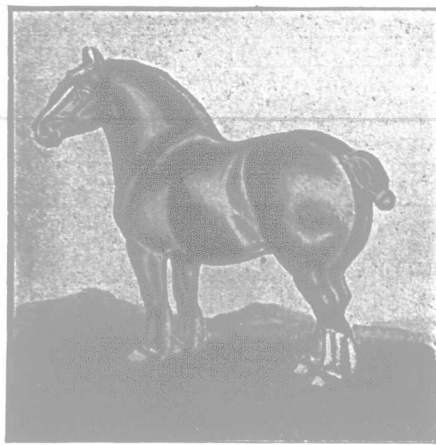
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Best Farm Collars ever made.

Our 40 page illustrated Catalogue gives prices and tells all about them; we mail it free.

WANT ONE?

THE GULLINE HORSE COLLAR CO. GRANBY, P. Q. CANADA.



LATELY IMPORTED A FRESH LOT OF

Glydesdale Stallions,

Comprising sons and grandsons of many of the most noted Scotch showyard winners and sires, all in the pink of condition without surplus flesh, and personally selected to meet the best Canadian markets, having, without exception, the best of bone, hair, feet, and action, coupled with true Clyde character. I will make further importations as the times demand. Inspection invited. Prices consistent with quality.

ROBERT GRAHAM, Ringwood P. O., Ont.

Stouffville Station, G. T. R., and telegraph office.

THEY WANT

Dr. Hess' Stock Food in England

Read what the great English importer, Mr. M. G. Rich, Bath Bridge, Tetsbury, Gloucestershire, Eng., and owner of 1,000 acres of land, writes:

BATH BRIDGE, TETSBURY, GLOUCESTERSHIRE, ENG., Aug. 8th, 1901.

DR. HESS & CLARK, Ashland, O.: GENTLEMEN—Where can I get Dr. Hess' Stock Food in England? In my travels in America I find it in many stables, and highly recommended by my friends. Yours respectfully,

P. S.—I farm nearly 1,000 acres.

M. G. Rich.

DR. HESS' STOCK FOOD IS NOT A STIMULANT,

but a tonic. It expels worms, cleanses the blood and system generally; calls into healthy action very organ of the animal body; allows no food to pass off undigested. It pays to feed it as a health promoter and as a flesh and milk producer.

EVERY PACKAGE GUARANTEED.

7-lb. sack \$.65	25-lb. sack \$2.00
12-lb. sack 1.00	50-lb. sack 3.75
		100-lb. sack \$7.00

If your dealer can't supply you, send your order to

THE GREIG MFG. CO., W. R. ROWAN, MGR. **Winnipeg, Manitoba.** P. O. Box 603.

FREE.—Dr. Hess' new scientific veterinary work, giving the symptoms and latest treatment on stock diseases, will be mailed you for the asking. Address—Dr. Hess & Clark, Ashland, Ohio.

LESS LABOR AND MORE MONEY ON THE FARM.

BUY A LOW-DOWN, THICK-FLESHED

Hillhurst Shorthorn Bull,

Scotch-topped, from Cumberland, Gloucestershire, or Canadian dairy strain, and raise DEEP-MILKING, BIG-FRAMED COWS AND BABY BEEF in nature's way. Many cows that do not pay board at the pail will give a handsome return in growing beef. Four handsome young bulls, seven to nine months old, reds and roans, by the celebrated imported sires, "Joy of Morning" and "Scottish Hero," for sale at moderate prices. Low freights.

M. H. COCHRANE, COMPTON CO., P. Q.,

G. T. R., 117 MILES EAST OF MONTREAL.

HILLHURST STATION.

GOSSIP.

Attention is directed to the advertisement in this issue by Messrs. John Thornton & Co. the great English auctioneers of the dispersion sale, on March 19th, of the entire herd of Red Polled cattle belonging to Mr. James E. Platt, Howbury Hall, Bedford, England. The herd has an excellent reputation as a dairy producer and good feeder. Those interested should apply for catalogue.

FOR SALE:

CLYDESDALES AND SHORTHORNS.

Stallions from six king foals up. Brood mares and fillies of superior quality and breeding. A few grand young Shorthorn heifers, bred in the purple. Special mention, the great four-year old stallion "Prince Lyon."

THOS. GOOD,

Richmond P. O., Ont. R. R. Station, Stittsville, C.P.R.

SKUNK!
KILL THE CHICKEN THIEF!
SKIN HIM AND SHIP HIS
SKIN AND ALL.
RAW FURS,
GINSING AND DEERSKINS
TO THE OLD-ESTABLISHED SHIPMENT HOUSE
MILLAN FUR & WOOL CO.
MINNEAPOLIS, MINN.
THREE DOLLARS IN IT
Write for Price Circulars

BAWDEN & McDONEL,
EXETER, ONTARIO.

IMPORTERS OF
Clydesdales, Shires
AND HACKNEYS.
OUR last importation of 14
Stallions comprises winners
at the leading shows in England
and Scotland; all of which we
are offering at living prices, including
the champion Shire stallion, Bel-
shazzar.

WM. SMITH, COLUMBUS, ONT.,
IMPORTER AND BREEDER OF
Clydesdale Horses & Shorthorn Cattle
Clydesdales and Ayrshires
Imported and home-bred. Also Dorset Horned
sheep, and the leading varieties of poultry.
ROBERT NESS & SONS, Howick, Que.

4 Imp. Clydesdale Stallions
31 Imported Shorthorn Cows and Heifers.
7 Canadian-bred Cows and Heifers.
3 Imported Shorthorn Bulls.
5 Canadian-bred Bulls.

GEO. ISAAC & BROS., BOMANTON, ONT.
COBURG STATION, G. T. R.

Wm. Brash, Ashburn, Ont.,
BREEDER OF
CLYDESDALE HORSES and SHORTHORN CATTLE.

FOR SALE:
Nine Shorthorn bulls, from 8 to 15 months old.
Also pure-bred Clydesdale stallion, bred from im-
ported stock, rising 2 yrs.; brown in color.
McDONALD BROS., WOODSTOCK, ONT.

6-POLLED ANGUS BULLS—6
Six young bulls, from 6 to 16 months old; prize-
winners among them. All for sale.
Alex. McKinnon, Hillsburg P. O. and Station.

THE REASON
You should use
THE WINNIPEG HEATER
Is because it will give you more com-
fortable and healthy heating at less ex-
pense. Our booklet will explain.
THE WINNIPEG HEATER CO. OF TORONTO.
77 Victoria St., Limited.
TORONTO, CANADA.

90 HEAD
High quality,
Early-maturing
Herefords
Prizewinners.
Young bulls,
cows,
heifers.

The blood of "Corrector," "Eureka," "Ancient
Briton," and "Rupert," on an "Anxiety" foundation.
Send for illustrated catalogue.

H. D. SMITH, COMPTON, QUE.

HEREFORDS FOR SALE.
THE HERD of upwards of 90 head of registered
animals contains the blood of the best English
herds, with imported True Briton and Likely
Lad at the head. Stock of both sexes and all ages
for sale. Correspondence or a personal visit invited.

A. S. HUNTER,
DURHAM, ONT.

The Sunnyside Herefords.
Imp. Sunny Slope Tom 1st
No. 8685 at head of herd. The
blood of Lord Wilton, Garfield,
Grove 3rd and Beau Real rep-
resented. Special offering: 5
bulls, from 8 to 11 mos.; 10
cows and heifers, from 10 mos.
to 3 yrs. old. Inspection and
correspondence solicited.
O'NEIL BROS., Southgate, Ont.
Lucan station, G. T. R. Hilderton station, L. H. & A.

LAWNRIDGE STOCK FARM.
JERSEYS FOR SALE: Yearling bull, 5 bull
calves, also some very fine registered cows, heifers
and heifer calves—fresh calved and springers.
One hundred head to select from. Cows a spe-
cialty.

J. L. CLARK,
Norval station: G. T. R. Norval P. O.

J. & W. B. WATT,
SALEM, ONTARIO
(POST AND TELEGRAPH OFFICE).

BREEDERS OF—
Shorthorn Cattle, Clydesdale Horses,
Leicester and Oxford Sheep, and
Berkshire Pigs.

Our herd contains such families as Matchless,
English Ladies, Mildreds, Village Buds, Misses, Stam-
fords, Clarets, and Marthas. Royal Wonder = 34682 =,
junior champion of 1901, now heads the herd. A
choice lot of young bulls and a few females for sale.
We offer our whole flock of Leicesters for sale—
thirty-five ewes and ewe lambs and fifteen rams.
**Farms 2 miles from Elora Stn., G. T. R. and
C. P. R., 12 miles north of Guelph.**

J. R. McCallum, Iona Station, Ont.
Offers young SHORTHORN BULLS and
HEIFERS, of choice breeding, at reasonable prices.
Iona Stn. on M. C. R., half a mile from farm.

For Sale: 3 Shorthorn bulls of first-class
breeding, sired by such noted bulls as
Scotland's Fame (imp.) and Bold Britain, bred by
John Isaac, Markham. Also some choice cows and
heifers. **F. A. GARDNER, Britannia, Ont.**
PERL COUNTY.

SHORTHORNS.
Fashionably bred, of both sexes and all ages.
Nothing reserved.
H. PARKER, Durham P. O. and Station.

SHORTHORNS FOR SALE:
Seven choice young bulls, from 9 to 12 months old.
Also a few choice heifers, in calf to the grandly bred
Marr bull, Spicy Marquis (imp.).
JAS. GIBB, Brookdale, Ont.

SHORTHORNS (IMPORTED).
Five choice young bulls, from 6 to 10 months old,
by Imp. Capt. Mayfly, out of Indian Chief dams.
JAMES A. CREEAR,
Shakespeare P. O. and Station, G. T. R.

ROSEVALE SHORTHORNS
Are of the up-to-date
sort. We have for sale
a number of young
bulls and heifers of all
ages. Marengo Heydon
Duke (imp.) heads the
herd.
W. J. SHEAN & CO.,
Owen Sound, Ont.

SHORTHORN CATTLE
AND LINCOLN SHEEP.
Imp. Prime Minister at head of herd. Seven young
bulls for sale—good ones. Also a few females. Stud
rams all imported from H. Dudding, Esq.; the same
blood as the 1000-guinea ram.

J. T. GIBSON,
DENFIELD, ONT.
FOR SALE:
Three grandly-bred Ayrshire bull calves, 12 to 15
mos. old. Also young calves, by Napoleon of Auchen-
brair (imp.), whose dam has a record of 72 lbs. of
milk per day. A few choice young Berkshire and
Yorkshire sows could be served before shipping.
Collie pups, from Perfection Queen. Address—
T. D. McCALLUM,
Nether Lea, -om Danville, Que.

Bonnie Burn Stock Farm, 40 rods north of
Stouffville Station,
Ont., offers Shorthorn bulls and heifers with calf.
Shropshire ewes with lamb, and Berkshire pigs. All
at farmers' prices. Inspection invited.
D. H. RUSSELL, Stouffville, Ontario.

LAKE VIEW STOCK FARM.
SCOTCH SHORTHORNS, both sexes, all ages.
As good as the best.
Menford Station, **JAMES BOWES,**
G. T. R. North, -om Strathairn P. O.

10 SHORTHORN BULLS
From 6 to 18 months old. Nearly all from
imp. dams, and sired by the imp. Golden
Drop bull, Royal Prince. Catalogue upon
application.
John Miller & Sons, Brougham P. O.
CLAREMONT STATION, C. P. R. ONT.

Shorthorns
For Sale: Choice young cows and heifers in calf
to Imp. bull. A few choice heifer
calves. Bulls of various ages. Shropshire ram
lambs, out of Imp. Mansell-bred ewes. Prices
moderate.
G. A. BRODIE, - BETHESDA, ONT.
Stouffville Station, G. T. R.

Maple Lodge Stock Farm.
ESTABLISHED 1851.
SHORTHORNS. First-prize milking strains, best
scotch breeding. Young bulls and heifers for sale.
LEICESTERS. A grand lot of ewes, bred to our
imported rams, and a few choice rams, now for sale.
Also Bronze turkeys.

A. W. SMITH,
Ailsa Craig Station, **Maple Lodge P. O.,**
G. T. R., 3 1/2 miles, -om

PLEASE MENTION FARMER'S ADVOCATE.

Ontario Winter Fair Prize List
of 1901.

BEEF CATTLE.
SHORTHORN.—Steer, two years and
under three—1 Geo. Dickie, Hyde Park.
Steer, under one year—1 Jos. Kirby,
Armstrong's Mills; 2 Robt. McEwen,
Hyron; 3 G. Walker, Ilderton. Cow or
heifer, three years and over—1 And. B.
Baxter, Hamilton; 2 J. & R. McQueen,
Elora; 3 John Brown, Galt. Heifer,
two years and under three—1 H. Smith,
Hay; 2 E. Jeffs & Sons, Bond Head; 3
James Gibbs, Brookdale. Heifer, un-
der two years—1 Jas. Leask, Green-
bank; 2 E. Brien & Son, Ridgeway; 3
J. Fried & Son, Roseville. Best steer—
Robt. McEwen, Hyron. Best cow or
heifer—Jas. Leask, Greenbank.

HEREFORD AND POLLED ANGUS.—
Steer or heifer, two years and under
three—1 F. W. Stone Stock Co.,
Guelph; 2 and 3 Walter Hall, Washing-
ton. Steer or heifer, one year and un-
der two—1 and 3 F. W. Stone Stock
Co.; 2 W. Hall. Steer or heifer, under
one year—1 and 2 Jas. Bowman,
Guelph; 3 S. Young, Birkham. Cow or
heifer, three years and over—1 F. W.
Stone Stock Co.; 2 and 3 W. Hall.

GALLOWAY AND DEVON.—Steer or
heifer, two years and under three—1 A.
M. & R. Shaw, Brantford; 2 W. J.
Rudd, Eden Mills. Steer or heifer, one
year and under two—1 A. M. & R.
Shaw; 2 and 3 W. J. Rudd. Steer or
heifer, under one year—1 W. J. Rudd;
2 A. M. & R. Shaw; 3 D. McCrae,
Guelph. Cow or heifer, three years and
over—1 D. McCrae.

GRADE OR CROSS.—Steer, two years
and under three—1 Jas. Leask; 2 R. J.
Robinson, Ailsa Craig; 3 T. Lloyd-
Jones & Sons, Burford. Steer, one
year and under two—1 Jas. Green, Fer-
rus; 2 Jas. Leask; 3 John Dickinson,
Eramosa. Steer, under one year—1 J.
Fried & Son, Roseville; 2 N. H. Black,
Rockwood; 3 A. McDougal, Guelph.
Cow or heifer, three years or over—1
Jas. Leask; 2 Jas. Bowman; 3 Jas.
Green. Heifer, two years and under
three—1 Jas. Leask; 2 J. Fried & Son;
3 G. G. Parkinson, Eramosa.

**Heifer, under two years—1 Jas. Leask;
2 M. Wolfe, Hespeler; 3 Geo. Kitching,
Corwin. Best steer, any age, sired by
pure-bred Aberdeen-Angus bull—1 Jas.
Bowman. Best grade steer, fed in
County of Wellington, and owned three
months previous to show—Jas. Green.
Best grade steer, sired by pure-bred
Shorthorn bull—1 Jas. Leask; 2 Jas.
Green. Best three export steers—1 G. B.
Hood, Guelph; 2 John Brown, Galt; 3
J. Fried & Sons; 4 G. B. Hood. Best
pair fat animals, any age or bred,
bred by exhibitor (Bell Organ Cup)—1
Jas. Leask. Best animal, any age or
bred, bred and fed by exhibitor (Halli-
day Cup)—1 Jas. Leask. Dressed car-
cass, pure bred—1 W. J. Rudd (Devon);
2 Jas. Gibb (Shorthorn); 3 D. McCrae
(Galloway); 4 J. & R. McQueen, Elora
(Shorthorn). Grade or cross—1 J.
Brown, Galt (Shorthorn); 2 James
Bowman (Angus); 3 T. Lloyd-Jones &
Son (Galloway); 4 J. Fried & Sons
(Shorthorn).**

DAIRY CATTLE.
SHORTHORN.—Dairy cow, 36 months
and over—1 L. D. Currie, Hillsburg
(Bonnie Doon); 2 A. W. Smith, Maple
Lodge (Irish Ivy); 3 Jas. Brown, Nor-
val (Indian Rose). Heifer, under 36
months—1 H. C. Graham, Ailsa Craig
(Belvedere); 2 H. C. Fairbairn, Thed-
ford (Juliet).

AYRSHIRE.—Cow, 36 months and
over—1 W. M. Smith, Scotland (An-
nette); 2 N. Dymont, Clappison (Nelly
Grey); 3 H. & J. McKee, Norwich
(Annie Laurie). Heifer, under 36
months—1 W. M. Smith (Ladysmith); 2
H. & J. McKee (White Rose); 3 N.
Dymont (Ruby 2nd of Hickory Hill).

HOLSTEIN.—Cow, 36 months and
over—1 Geo. Rice, Currie's Crossing
(Winnie Win); 2 G. W. Clemons, St.
George (Queen De Kol 2nd). Heifer, un-
der 36 months—1 Geo. Rice (Vertelle
4th); 2 Jas. Rennie, Norwich (Merceda
3rd); 3 Jas. Rennie (Cornelia Schuil-
ings).

GRADE.—Cow, 36 months or over—1
A. McDougal, Guelph (Utopia, Short-
horn-Jersey grade). Grade heifer, under
36 months—1 Jas. McCormack & Son,
Rockton (Nellie, Ayrshire grade); 2 W.
M. Smith, Scotland (Ayrshire grade); 3
A. McDougal (Ayrshire grade).

SHEEP.
COTSWOLD.—Ewe, under one year—1
and 2 J. C. Ross, Jarvis; 3 E. Brien
& Sons, Ridgeway. Wether, one year
and under two—1, 2 and 3 John Park
& Sons, Burgessville. Wether, under
one year—1 and 2 John Rawlings,
Ravenswood; 3 and 4 John Park &
Sons. Three ewes, under one year—
1 John Rawlings; 2 and 3 John Park
& Sons. Three ewes, under one year—1
J. C. Ross; 2 John Rawlings; 3 E.
Brien & Sons. Dressed carcass, wether,
one year and under two—1, 2 and 3
John Park & Sons. Wether, under one
year—1 John Rawlings; 2 and 3 John
Park & Sons.

LINCOLN.—Ewe, under one year—1
and 2 J. T. Gibson, Denfield; 3 G.
Walker, Ilderton. Wether, one year and
under two—1, 2 and 3 J. T. Gibson.
Wether, under one year—1 and 2 G.
Walker; 3 J. T. Gibson. Three wethers,
under one year—1 J. T. Gibson; 2
G. Walker; 3 Three ewes, under one
year—1 J. T. Gibson; 2 and 3 G.
Walker. Dressed carcass, wether, one
year and under two—1 J. T. Gibson.
Wether, under one year—1 J. T. Gib-
son; 2 G. Walker.

LEICESTER.—Ewe, under one year—
1 and 2 John Kelly, Shakespeare; 3 A.
& W. Whitehead, Guelph. Wether, one
year and under two—1 Orr & Lillies,
Galt; 2 J. M. Gardhouse, Highfield; 3
John Kelly. Wether, under one year—1
(Continued on next page)

HORSEMEN!—THE ONLY GENUINE IS

GOMBAULT'S
CAUSTIC BALSAM.

None genuine without the signature of
The Lawrence, Williams Co.
Sole Importers & Proprietors for the
U. S. & CANADA, } CLEVELAND, O.
The Safest, Best BLISTER ever used. Takes
the place of all liniments for mild or severe action.
Removes all Blisters or Hemorrhoids from Horses and
Cattle. SUPERSEDES ALL CAUSTERY or
FIRING. Impossible to produce scur or blench.
Every bottle is warranted to give satisfaction. Price
\$1.50 per bottle. Sold by Druggists, or sent by
Express, charges paid, with full directions for its
use. Send for free descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

Queenston Heights Shorthorns

SCOTCH AND SCOTCH TOPPED.
Headed by the Sittytown Secret bull, Imp. Derby,
assisted by Lord Montalis = 39279 =, sired by Hon.
John Dryden's Duthie-bred Collie Arch. Young
stock of both sexes for sale.

HUDSON USHER, QUEENSTON, ONTARIO.
Farm 3 miles north of Niagara Falls.

BELLEVUE SHORTHORNS.
Both sexes. IMPORTED AND HOME BRED. All ages.
Prizewinners at home and abroad.

EDWIN BATTYE,
GORE BAY P. O. AND PORT.
MANITOULIN ISLAND, -om

HIGH PARK STOCK FARM.
GALLOWAYS of the choicest breeding and most
fashionable strains. Inspection or correspondence
invited. **A. M. & ROBERT SHAW,**
-om P. O. Box 294, Brantford, Ont.

FOR SALE:
SHORTHORNS: 8 young bulls, from 3 to 8 mos.
old, sired by Let's Lad and out of deep-milking
cows. **H. E. HIND, Hagersville P. O. and
Station, G. T. R. and M. C. R.**

A QUICK, SHARP CUT
hurts much less than a bruise, crush or tear.
Done with the
DEHORNING KEYSTONE KNIFE
is the safest, quick, sharp cut. Cuts from four
sides at once. Cannot crush bruise or tear.
Most humane method of dehorning known.
Look highest award World's Fair. Write
for free circulars before buying.
Owned and Manufactured by R. H. McKenna, V. S., Picton, Ont.

SHORTHORN BULLS.
RARE GOOD BULLS, SCOTCH-BRED
BULLS.
Write for bull catalogue free.

H. SMITH, Hay P. O., Huron Co., Ont.
Exeter Station on G. T. R., half a mile
from farm -om

W. G. PETTIT & SON,
FREEMAN P. O., ONT.,
IMPORTERS AND BREEDERS OF

**Scotch Shorthorns and
Shropshire Sheep,**

Are offering 10 Imp. bulls from 10 months to
2 years old; 10 home-bred bulls from Imp.
stock, 10 to 15 months old; 10 Imp. cows
and heifers, all ages. Home-bred cows and
heifers all ages. Also a grand lot of ram and
ewe lambs and yearling ewes for sale. -om

Burlington Jct. Stn. Tele. & 'Phone, G. T. R.

Agents Wanted
for the New Pictorial Stock Doctor and
Live Stock Cyclopedia, revised to 1901 with the
assistance of the Professors of the Ontario
Agricultural College, Guelph. The finest il-
lustrated, cheapest and best book of its kind
ever published. Large wages to agents. A
full-page announcement of the issue of June 5th,
in the ADVOCATE of the issue of June 5th.
Particulars mailed free. Address WORLD
PUBLISHING CO., Guelph, Ont.

SHORTHORNS: We are offering for sale 8
years old, by Mungo 2nd and Scottish Bard. Also
a few cows bred to Baron's Heir. -om
ROBT. GLEN, Owen Sound, Ontario.

SCOTCH SHORTHORNS.
We are now offering a few young bulls, from
6 to 11 months; also a few heifers, from 6
months to 2 years; all showing No. 1 quality.
W. G. HOWDEN, -om COLUMBUS P. O.

Newcastle Herd Shorthorns and Tamworths
Two bull calves and two heifer calves, 6 to 9 mos.
old. Twenty Tamworth boars and sows, soon fit to
wean. Sows safe in pig and boars fit for service. All
from Toronto prize stock. Prices right, quality con-
sidered. -om Colwill Bros., Newcastle, Ont.

EIGHT SHORTHORN BULLS FOR SALE—6 to 23 months old, two of them prizewinners. Write for breeding and prices. Terms easy. F. MARTINDALE & SON, YORK, ONT.

HIGH-CLASS SCOTCH SHORTHORNS of the following families, for sale at moderate prices: Village Girls, Broadhooks, Beaufort Roses, Missies, Clares, Marr Floras, Nonpareils, Minas and other choice families. Write for catalogue. Shropshire rams and ewes for sale as usual. ROBERT MILLER, Stouffville, Ont.

SHORTHORNS FOR SALE. Bulls and heifers from such families as Stamfords, Matchless, Fashions, Lovelies, etc. Dams and sires all prizewinners. In 1900 we took all the prizes in this northern country, some of the dams being prizewinners in Toronto and other large shows, and others have produced Toronto prizewinners. Sire at the head is Village Squire 24993, by Abbotford. Royal Sailor bull two years old. Five young bulls, some nice heifer calves, cows in calf, and heifers. Write for prices or come and see them before buying. THOS. MERCER, Markdale, Ont. Farm 1 mile from Markdale P. O. and C.P.R. station.

JOHN DRYDEN, BROOKLIN, ONTARIO. BREEDER OF CRUICKSHANK SHORTHORNS AND CHOICE SHROPSHIRE SHEEP. Choice Young Bulls and Ram Lambs for sale. Write for prices.

SHORTHORNS (imported) One bull, 2 years old, and 1 imported cow, and 7 home-bred heifers. THOS. RUSSELL, EXETER, ONT.

SHORTHORNS. One bull, 1 year old; two bulls, 7 months old; a few heifers of choice breeding and superior quality. AMOS SMITH, Listowel station, Trowbridge P. O., Ont.

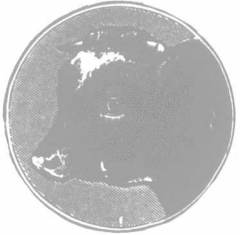
SHORTHORN BULLS. Scotch-bred and rare good ones. Also females all ages. Write for particulars, or, better, come and see them. DAVID MILNE & SON, Huron Co., Ont. Ethel, P. O. Ethel Station, G. T. R., half mile from farm.

SHORTHORNS: We are offering 3 extra choice yearling bulls, all from imported sires, straight Cruickshank, with Lavender and Miss Ramsden dams. THOS. ALLIN & BROS., Oshawa, Ont.

Shorthorns, Berkshires, Leicesters Am offering at present the grand stock boar, Crown Prince; also some young ones. ISRAEL GROFF, ALMA, ONTARIO.

HAWTHORN HERD of deep-milking Shorthorns for sale. Six young bulls of first-class quality and breeding and from A1 dairy cows. WM. GRAINGER & SON, Londesboro, Ont.

Charles Rankin WYEBRIDGE, ONT., IMPORTER AND BREEDER OF SHORTHORNS, OXFORD DOWNS AND BERKSHIRE PIGS. Young stock always on hand.



GREENGROVE HERD OF SHORTHORNS. This herd was founded over 18 years ago, by John Fletcher, and contains such Scotch-bred tribes as the Missies and Mysies, Languishes and Butterflies, and is now headed by the famous stock bull, Spicy Robin = 28259 = (bred by J. & W. B. Watt), a worthy grandson of Imp. Royal Sailor = 18959 =, and of Barmpton Hero and of Ruby Venscarth = 15559 = and is of the noted English Lady family. Some good young stock for sale. For prices and particulars, address GEORGE D. FLETCHER, BINKHAM, ONT. C. P. R. Station, Erin.

GEO. RAIKES, BARRIE, ONT., BREEDER OF SHORTHORNS & SHROPSHIRE. YOUNG STOCK FOR SALE.

SHORTHORNS—Scotch and Scotch-topped. War Eagle = 27609 = at head of herd. Young bulls, cows and heifers for sale. Railway station: Coldwater, Midland branch, G. T. R. Write for prices. S. Dunlap, Eady P. O., Ont.

FOR SALE: SHORTHORN BULLS AND HEIFERS from such sires as Mariner (imp.), Royal Judd 17499, Sultan Selam (imp.), Grenadier 26251, and Roseville Abott 30874, on a Victoria foundation. Also one extra Kinellar Stamp 10-mos. red bull. Come or write. THOS. CUDMORE & SON, Hurondale, Ontario.

Hillside Shorthorns and Shropshires. Bulls, from 8 to 18 months old; heifers, various ages, of true type and fashionable breeding; also 25 ram lambs and 15 ewe lambs, from imp. sire. Will quote prices right for quick sales. L. Burnett, Greenbank P. O., Ont.; Uzbridge Stn., G. T. R.

PLEASE MENTION FARMER'S ADVOCATE.

ONTARIO WINTER FAIR PRIZE LIST (continued).

and 2 Orr & Lillico; 3 J. M. Gardhouse. Three wethers, under one year—1 and 2 Orr & Lillico; 3 H. Parks, Woodstock. Three ewes, under one year—1 John Kelly; 2 A. & W. White; 3 John Hoggard, Ranelagh. Three ewe lambs (special), open only to exhibitors that have never won prizes at a Provincial Fat Stock Show—1 John Hoggard; 2 J. & W. B. Watt; 3 D. H. Taylor. Dressed carcass, wether, one year and under two—1 Orr & Lillico; 2 and 3 Jno. Kelly. Wether, under one year—1 and 2 H. Parks; 3 Orr & Lillico.

OXFORD.—Ewe, under one year—1 Smith Evans, Gourcock; 2 and 3 K. Finlayson, Campbellton. Wether, one year and under two—1 and 2 J. H. Jull; 3 S. Evans. Wether, under one year—1 and 2 S. Evans; 3 J. H. Jull. Three wethers, under one year—1 S. Evans; 2 J. H. Jull. Three ewes, under one year—1 K. Finlayson; 2 S. Evans; 3 J. H. Jull. Dressed carcass, wether, one year and under two—1 S. Evans; 2 J. H. Jull. Wether, under one year—1 J. H. Jull; 2 S. Evans.

SHROPSHIRE.—Ewe, under one year—1 and 2 John Campbell, Woodville; 3 Geo. B. Phin, Hespeler. Wether, one year and under two—1 R. Gibson, Delaware; 2 Jno. Campbell; 3 W. E. Wright, Glanworth. Wether, under one year—1 and 2 R. Gibson; 3 Jno. Campbell. Three wethers, under one year—1 R. Gibson; 2 Jno. Campbell; 3 W. E. Wright. Three ewes, under one year—1 Jno. Campbell; 2 Geo. B. Phin; 3 W. E. Wright. Dressed carcass, wether, one year and under two—1 W. H. Beattie, Wilton Grove; 2 W. E. Wright; 3 T. Lloyd-Jones & Son. Wether, under one year—1 and 2 W. E. Wright; 3 T. Lloyd-Jones & Son.

SOUTHDOWN.—Ewe, under one year—1 and 2 Jno. Jackson & Son, Abingdon; 3 Wm. Martin, Binbrook. Wether, one year and under two—1 Telfer Bros., Paris; 2 W. H. Beattie, Wilton Grove; 3 T. C. Douglas, Galt. Wether, under one year—1 Telfer Bros.; 2 and 3 T. C. Douglas. Three wethers, under one year—1 T. C. Douglas; 2 Telfer Bros.; 3 Wm. Martin. Three ewes, under one year—1 Jno. Jackson & Son; 2 Wm. Martin; 3 T. C. Douglas. Wether, one year and under two—1 W. E. Wright; 2 T. C. Douglas; 3 John Jackson & Son. Wether, under one year—1 Lloyd-Jones & Son; 2 Wm. Martin; 3 John Jackson & Son.

DORSET HORN OR MERINO.—Ewe under one year—1 and 2 R. H. Harding, Thorndale; 3 Jno. Hunter, Wyoming. Wether, one year and under two—1 and 3 R. H. Harding; 2 Jno. Hunter. Wether, under one year—1 R. H. Harding; 2 and 3 Jno. Hunter. Dressed carcass, wether, one year and under two—1 and 3 R. H. Harding; 2 John Hunter. Wether, under one year—1 R. H. Harding; 2 and 3 Jno. Hunter.

HAMPSHIRE AND SUFFOLK.—Ewe, under one year—1 Telfer Bros.; 2 and 3 Jno. Kelly. Wether, one year and under two—1 and 2 James Bowman. Wether, under one year—1, 2 and 3 James Bowman. Dressed carcass, wether, one year and under two—1 and 2 Jas. Bowman. Wether, under one year—1 Jas. Bowman.

GRADES AND CROSSES.—Ewe, one year and under two—1 John Campbell; 2 E. Brien & Sons; 3 L. D. Gibson. Wether, one year and under two—1 and 2 John Campbell; 3 R. Gibson. Three wethers, under one year—1 John Campbell; 2 R. Gibson; 3 Orr & Lillico. Wether, under one year—1 John Campbell; 2 And. Richardson, Peepabun; 3 R. Gibson. Ewe, under one year—1 Hastings Bros., Crosshill; 2 John Campbell; 3 Andrew Richardson. Ewe or wether, under two years—1 John Campbell; 2 T. C. Douglas; 3 R. Gibson. Dressed carcass, wether, one year and under two—1 John Brown, Galt; 2 R. Gibson; 3 W. E. Wright. Wether, under one year—1 John Brown; 2 R. Gibson; 3 W. E. Wright.

SWINE.

BERKSHIRE.—Barrow, six months and under nine—1 Snell & Lyons, Snelgrove; 2 Geo. Green, Fairview; 3 Durham & Cavan, Toronto. Barrow, under six months—1 Durham & Cavan; 2 and 3 Snell & Lyons. Sow, nine months and under fifteen—1 Geo. Green; 2 John Kitching, Corwhin; 3 Wm. Wilson, Snelgrove. Sow, six months and under nine—1 Wm. Wilson; 2 Geo. Green; 3 Snell & Lyons. Sow, under six months—1 Geo. Green; 2 and 3 Snell & Lyons. Three pigs, offspring of one sow, bred by exhibitor—1 Geo. Green; 2 and 3 Snell & Lyons.

YORKSHIRE.—Barrow, six months and under nine—1 J. E. Brethour, Burford; 2 R. J. Kerr, Mimosas; 3 Colin Campbell, Guelph. Barrow, under six months—1 H. Dedels, Breslau; 2 H. J. Davis, Woodstock; 3 J. Featherston & Son, Streetsville. Sow, nine months and under fifteen—1 J. E. Brethour; 2 and 3 J. Featherston & Son. Sow, six months and under nine—1 and 2 J. E. Brethour; 3 H. J. Davis. Sow, under six months—1 H. Dedels; 2 and 3 J. E. Brethour. Three pigs, offspring of one sow—1 J. E. Brethour; 2 H. Dedels; 3 H. J. Davis.

CHESTER WHITES.—Barrow, six months and under nine—1 and 2 Bennett & Pardo, Charing Cross; 3 D. DeCourcy, Bornholm. Barrow, under six months—1 D. DeCourcy; 2 and 3 Bennett & Pardo. Sow, nine months and under fifteen—1 and 2 Bennett & Pardo; 3 D. DeCourcy. Sow, six months and under nine—1 and 2 Bennett & Pardo; 3 D. DeCourcy. Sow, under six months—1 and 2 Bennett & Pardo; 3 D. DeCourcy. Three pigs, offspring of one sow—1 and 3 Bennett & Pardo; 2 D. DeCourcy.

(Continued on next page.)

A CARD. PARIS SEPARATOR AWARDS. The De Laval Cream Separators received the GRAND PRIZE award at the Paris Exposition, in the name of "SOCIETE ANONYME SEPARATOR," which is the French translation of "AKTIEBOLAGET SEPARATOR," the Swedish name of the De Laval European organization, both names meaning "SHAREHOLDER'S SEPARATOR COMPANY, LIMITED." The repeated misrepresentation of the VERMONT FARM MACHINE CO. (manufacturers of the so-called "U. S." separator) in this regard, culminating with the malicious falsehood that no such award was made and that the De Laval Company is guilty of "lying" in so claiming, brings the matter to a point where common business self-respect demands that some radical action be taken. We have, therefore, this day instructed counsel to at once take such legal steps as may be justified and proper in the circumstances against both the VERMONT FARM MACHINE CO. and, where practicable, such papers as may have given advertising publication to these false and libelous statements. THE DE LAVAL SEPARATOR CO. New York, Dec. 17, 1901.

We beg to call your attention to a new and indispensable article in Barclay's Patent Attachment FOR THE CURE OF BALKING AND KICKING HORSES. Will control any vice known to a horse. Invaluable for breaking-in colts. Can be adjusted in two minutes, and used with any harness, vehicle or implement. Sent, charges paid, to any part of Canada, with full directions for use, on receipt of price, \$5. Reliable representatives wanted. For further information, address THE BARCLAY MFG. CO., Brougham, Ont. A Good Thing EVERY FARMER SHOULD HAVE ONE. This cut represents our steel Storm King Forge. It is without doubt the most perfect article of its kind. It has a powerful blast, and is capable of taking off a welding heat of considerable size. Height, 30 inches. Size of pan, 26 x 27. PRICE, \$8.50. FRED. HAMILTON, HAMILTON, ONT. Wholesale and Retail Hardware and Implements. If you are building, or want anything in Hardware or Implements, write us for prices.

Spring Grove Stock Farm. Shorthorn Cattle AND Lincoln Sheep. HERD prize and sweep-stake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by the Marr Missie bull, Imp. Wanderer's Last, last of the get of the great sire, Wanderer, of the Cruickshank Brawith Bud tribe. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply T. E. Robson, ILBERTON, ONT. ARTHUR JOHNSTON, GREENWOOD, ONTARIO. BREEDER OF POST OFFICE AND TELEGRAPH OFFICE. IMPORTER OF SHORTHORNS ONLY. FOR SALE: 9 imported bulls and bull calves. 11 home-bred bulls and bull calves, from imported cows and by imported bulls. 17 home-bred bull calves. A large and excellent lot of young cows and heifers of various ages. RAILWAY STATIONS: PICKERING, G. T. R., 22 MILES EAST OF TORONTO. CLAREMONT, C. P. R., 28 MILES EAST OF TORONTO.



Cured—32 Years of Awful Pile Agony.

Sioux Falls, S. D., Feb. 18, 1901. For 32 years I suffered constantly from protruding piles and finally had to abandon my trade of stone-mason. Four months ago I began using Pyramid Pile Cure, and before I had used up one 50c. box the disease had entirely disappeared and there is no sign of it ever returning. I am completely cured. F. Capps, 216 N. Minnesota Ave. Sold by all druggists, 50c. a box. Book, "Piles, Causes and Cure," mailed free. Pyramid Drug Co., Marshall, Mich.—Adv.

Jerseys and Cotswolds. For sale, three-year-old stock full, Count of Pine Ridge 53682, a grandson of Adelaide of St. Lambert, that gave 824 lbs. milk in a day, and 2,003 lbs. in a month. Also two of his sons—one year old, and a few daughters; and a useful lot of Cotswold rams and ewes. For particulars and price write: WILLIAM WILLIS, Newmarket, Ontario.

Ridgedale Farm Holstein-Friesians for Sale. 2 yearling bulls; also bull and heifer calves; all of choice breeding. Prices always reasonable. Write, or come and see them. R. W. WALKER, Utica P. O. Shipping stations: Port Perry, G. T. R.; Myrtle, C.P.R. om

SUCCESS WITH HOLSTEINS depends on starting right. Brookside has furnished foundation stock for some of the best herds in the country. We have 250 head, and if you want to establish or strengthen a herd, can supply you with animals of the right sort. We have 50 young bulls on hand, and females bred to the best sires living. Let us know just what you want. Catalogue of bulls now ready. We also have six fine thoroughbred Jersey Red boars, 6 months old, for sale, \$9 to \$10 each. HENRY STEVENS & SONS, LACONA, OSWEGO CO., N. Y. om

4 HOLSTEIN BULLS For Sale: From 4 to 7 months old, having sires in their pedigrees from such strains as Inks, Netherland, Royal Aaggie, and Tritonia Prince, and out of imported females that have proven their worth at the pail. THOS. B. CARLAW & SON, Warkworth. om

Maple Glen Stock Farm. EXHIBITION OFFERING: Two bull calves under 1 year. Also a Sylva and an Abbe Kirk bull calf, with spring and fall heifer calves of Sylva breeding, bred from winners and ones that will make winners. Prices according to quality. om

C. J. GILROY & SON, Brookville, on C.P.R. and G.T.R. Glen Buell, Ont.

RIDGELING CASTRATION. om—Dr. J. WILSON, V. S., WINGHAM, ONT., Specialist in the castration of ridgeling horses and colts. Terms and testimonials on application

F. L. GREEN, BREEDER OF Jersey Cattle and Yorkshire Pigs. Choice stock of each sex for sale. om PICKERING STATION, G. T. R. GREENWOOD P. O. CLAREMONT STATION, C. P. R.

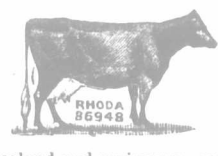
FOR SALE: A SPLENDID LOT OF Jersey Cattle.

41 HEAD TO CHOOSE FROM. Close descendants of my most noted prizewinners, and closely related to many animals I have sold that have won easily in the Northwest and all over Canada. My shipments last summer ranged from Manitoba to State of Delaware, U. S. om

MRS. E. M. JONES, BOX 324, BROCKVILLE, ONT., CAN.

JERSEYS FOR SALE. Two choice bull calves of the highest breeding and of true dairy type, at moderate prices. om W. W. EVERITT, Chatham, Ont. DEN-DIN FARM FARM, P. O. BOX 552.

BRAMPTON JERSEY HERD For sale: 2 yearling bulls; 8 bull calves, sired by Brampton's Monarch (imp.), and out of first-class cows. A number of cows and heifers in calf. Also some unregistered cows and heifers, fresh calved and springers—grand family cows. om B. H. BULL & SON, BRAMPTON, ONT.



ONTARIO WINTER FAIR PRIZE LIST (continued).

POLAND - CHINA. — Barrow, six months and under nine—1 and 2 R. L. Smyth, Fargo; 3 W. M. Smith, Scotland; Barrow, under six months—1, 2 and 3 R. L. Smyth; Sow, nine months and under fifteen—1 and 3 R. L. Smyth; 2 W. M. Smith, Sow, six months and under nine—1 R. L. Smyth; 2 and 3 W. M. Smith, Sow, under six months—1, 2 and 3 R. L. Smyth; Three pigs, offspring of one sow—1 R. L. Smyth; 2 and 3 W. M. Smith.

ESSEX.—Barrow, six months and under nine—1 T. A. McClure, Meadowdale; 2 and 3 J. Featherston & Son, Barrow, under six months—1 and 2 Featherston & Son; 3 T. A. McClure, Sow, nine months and under fifteen—1 and 3 Featherston & Son; 2 T. A. McClure, Sow, six months and under nine—1 T. A. McClure; 2 and 3 Featherston & Son, Sow, under six months—1 T. A. McClure; 2 and 3 Featherston & Son, Three pigs, offspring of one sow—1 and 2 Featherston & Son.

TAMWORTH.—Barrow, six months and under nine—1 A. Elliott & Son, Galt; 2 D. Douglas & Son, Mitchell; 3 J. C. Nichol, Hubrey, Barrow, under six months—A. Elliott & Son, Sow, nine months and under fifteen—1 Douglas & Son; 2 Elliott & Son; 3 J. C. Nichol, Sow, six months and under nine—1 Douglas & Son; 2 J. C. Nichol; 3 Elliott & Son, Sow, under six months—1, 2 and 3 W. R. McDonald, Ridgetown. Three pigs, offspring of one sow—1 Douglas & Son; 2 Elliott & Son; 3 J. C. Nichol.

DUROC - JERSEYS.—Barrow, six months and under nine—1 and 3 W. N. Tape, Bentpath; 2 W. M. Smith, Barrow, under six months—1, 2 and 3 W. N. Tape, Sow, nine months and under fifteen—1 W. M. Smith; 2 and 3 W. N. Tape, Sow, six months and under nine—1 and 2 W. N. Tape; 3 W. M. Smith, Sow, under six months—1 and 3 W. N. Tape; 2 W. M. Smith, Three pigs, offspring of one sow—1 and 3 W. N. Tape; 2 W. M. Smith.

GRADES AND CROSSES.—Barrow, six months and under nine—1 A. Elliott & Son; 2 Bennett & Pardo; 3 W. M. Smith, Barrow, under six months—1 Bennett & Pardo; 2 John Park & Sons; 3 J. C. Nichol, Sow, six months and under nine—1 and 2 A. Elliott & Son; 3 Durham & Cavan, Sow, under six months—1 A. Elliott & Son; 2 John Park & Sons; 3 J. C. Nichol. Export bacon hogs, three pure-breds—1 and 3 J. E. Brethour; 2 J. Featherston; 3 J. H. Newall & Son, Cramp-ton.

Three export bacon hogs, grade or cross—1 A. Elliott & Son; 2 John Park & Sons; 3 T. A. McClure.

Three export bacon hogs, any breed—1 J. E. Brethour. Dressed carcasses, pure-bred—1 J. E. Brethour; 2 J. Featherston & Son; 3 D. DeCourcy.

Dressed carcasses, three grades or crosses—1 All Hales; 2 T. A. McClure; 3 John Park & Sons.

Three best swine carcasses, any breed—All Hales. Best pen of four bacon hogs, between 170 and 200 lbs.—1 J. Featherston & Son; 2 J. E. Brethour.

SNELGROVE BERKSHIRES.

For the last forty years there is no name in Canadian Berkshire history better or more favorably known than that of Snell, of Snelgrove, Ont. During all these years, in the prize ring, in the councils of the Berkshire Swine Breeders' Association, in the contributions to the literature of this Association, in the vast improvement that has taken place in the conformation of this popular breed, to bring them to the ideal bacon type of to-day, the name Snell will be found to be intimately associated. In fact, so closely and so extensively have the Snells been associated with the breeding of pure-bred Berkshire hogs, that there is scarcely a herd of pure-breds on the continent that has not representatives that trace directly or indirectly to their breeding. The present firm of Snell & Lyons, who are still doing business on the farm close to Snelgrove, which is their post office and station, on the C. P. R., have on hand something over 70 head of imported and home bred, of both sexes and all ages. The head of the herd is Col. Brant 5950, winner of first prize at Toronto in 1899 for hog under one year. He has proven his superiority as a sire as well as in the prize ring, his get being distributed to almost every part of the country. Among the many dams the sow, Lady Shields 7697, sired by Col. Otter 7690, dam Belle of Milton, stands pre-eminent, a sow of great length and wonderful smoothness. She won first prize at both Toronto and Ottawa in 1900, also at the Guelph Winter Fair same year. A close second to her is the sow, Morning Mist, that won first as sow and first as sow and four of her pigs at Toronto in 1898, while in 1899, at Toronto, she won second as sow and four of her pigs. This sow has proved her superiority as a producer, her pigs showing great length, evenness, and smooth to a turn. At the late Winter Fair in Guelph, this firm won first and third on barrows under six months, second and third on barrows under six months, second and third on sows under six months, second and third on three pigs, the offspring of one sow, and they came fifth in the contest for bacon hogs alive. In their advertisement now running in these columns they offer young boars and sows from two months upwards, and sows bred to their best stock boars.

This saves The Fence. The tension curve is a little thing but it means long life and good service in the fence. Go examine the nearest AMERICAN Field & Hog FENCE and see how tight it can be stretched—the tension curve allowing for contraction. This is the most popular fence in the world to-day, because the Best and Cheapest. Sold everywhere. If your dealer hasn't it, write to AMERICAN STEEL & WIRE CO., Chicago, New York, San Francisco, Denver.

Agricultural College.

- (1) Three Weeks' Creamery Course—Dec. 2, 1901. (2) Twelve Weeks' Dairy Course—Jan. 4, 1902. (3) Two Weeks' Course in Stock and Grain Judging—Jan. 8, 1902. (4) Four Weeks' Course in Poultry Raising—Jan. 10, 1902.

Ladies admitted to Dairy and Poultry Courses. SEND FOR SPECIAL CIRCULARS. GUELPH, NOV., 1901. om JAMES MILLS, M. A., President.

"Popularity Is a Proof of Excellence."

BIBBY'S CREAM EQUIVALENT

As a Substitute for Milk or for Enriching Separated or Skimmed Milk for Calf Rearing is explained by the fact of its being the best article on the market for this purpose.

IT IS AN EASY MATTER TO TRY IT.

Price: 50-lb. bag, \$2.25; 100-lb. bag, \$4.00, f. o. b. Brandon. FOR SALE AT ALL CREAMERIES.

A. E. McKenzie & Co., Brandon, Manitoba.

Rapids Farm Ayrshires.

REINFORCED BY RECENT IMPORTATIONS of 2 bulls and 20 cows, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows last year. Imported Douglasdale of Dam of Aber, champion at the Pan-American, heads the herd. Representatives of this herd won the first herd prize at the exhibitions at— om



Toronto, London and Ottawa in 1900, and at the Pan-American in 1901.

Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

Come and see or write for prices.

Robert Hunter, Manager for W. Watson Ogilvie, Lachine Rapids, Quebec.

NO HUMBURG—3 Perfect Tools in One. Humane Swine V. Stock Marker and Calf Identifier. Stops swine of all ages from rooting. Makes 48 different ear marks, large or small. No change of blade. Extracts Horns. Testimonials free. Price \$1.00, or send \$1.00, get it on trial. 1711 So. 1st St., Chicago, Ill. April 23, 1901. FARMER BRIGHTON, FAIRFIELD, IOWA.

Maple Cliff Dairy and Stock Farm. BREEDERS OF AYRSHIRE CATTLE, IMPROVED BERKSHIRE AND TAMWORTH PIGS.

FOR SALE: 5 bull calves, a few heifers; young pigs, pairs not akin; 2 boars, 4 months old; young pigs. Farm adjoins Central Experimental Farm, Ottawa. R. REID & CO., Hintonburg, Ont.

TREDINNOCK AYRSHIRES Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchinbrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars address JAMES BODEN, Mgr., St. Anne de Bellevue, Quebec. Farm close to St. Anne Station, G.T.R. & C.P.R., 20 miles west of Montreal. om

AYRSHIRES.

I offer four choice August (1901) bull calves, two yearling heifers due to calve next August to imported bull, and a pair of March and April heifer calves. All bred from imported stock of choice milking strains.

W. W. BALLANTYNE, Stratford, Ontario. "Neidpath Farm" adjoins city, main line G.T.R.

Ayrshire Bulls from 1 1/2 years to 6 months, from special milking stock, sired by the sweepstakes bull, Cock of the North—9987—, also females all ages, Shropshire sheep, Berkshire pigs, either sex, and B. P. Rocks. For particulars write om

J. YUILL & SONS, Carleton Place, Ontario.

THE ONTARIO VETERINARY COLLEGE (LIMITED), TEMPERANCE ST., TORONTO, CANADA.

Affiliated with the University of Toronto. Patrons: Governor-General of Canada, and Lieut.-Governor of Ontario. Fee \$65.00 per session. Apply to ANDREW SMITH, F.R.C.V.S., Principal. 18-2-y-om

GOSSIP.

IMPORTED CLYDESDALES.

Four imported Clydesdale stallions and one filly are advertised for sale in this paper by Mr. Neil Smith, Brampton, Ontario, twenty miles west of Brampton, on the G. T. R. and C. P. R. These horses were personally selected and imported by Mr. Smith, who is acknowledged to be an excellent judge of Clydesdales, and has imported and bred many good ones. He likes a good big horse, and goes for that kind, believing that too many of the modern Clydesdales are under size and lacking in bone to produce the big draft horses which bring the best prices. The horses he offers have lots of size, combined with quality, and he is not looking for fancy prices, but is satisfied with a fair profit and quick return. Those wanting big, good horses should write for prices and particulars, or call on Mr. Smith and see the stock.

BIRMINGHAM FAT STOCK SHOW.

The Birmingham Fat Stock Show, held at Bingley Hall the first week in December, was well patronized, the number of visitors passing through the gates in the three days being 35,200. His Majesty the King exhibited largely from the Royal farms at Windsor in Hereford, Shorthorn, Aberdeen-Angus and Devon cattle, and the classes throughout were well filled with animals of superior merit. In two-year-old Hereford steers the first place and championship cup was given to Mr. W. H. Cooke's entry, weighing 1,990 lbs. at 2 years and 10 months. The second-prize steer and the reserve number for the cup was the King's Lancelot. In Shorthorn two-year-old steers the first place was worthily filled by the King's Robin Hood, weighing 1,940 lbs. at 2 years and 11 months, bred by the late Queen, and got by Prince Victor, the sire of Cicely, the imported cow sold at Mr. Platt's Chicago sale in November last for \$5,000. His Majesty was also the 1st-prize winner in the female class with Melinda, by Prince Victor, weighing 1,650 lbs. at 2 years 10 months 2 weeks. She was also the cup winner as best Shorthorn in the championship competition of the breed. The breed championship in the Devon class and the reserve number for the championship of the show fell to the King's steer of that breed, weighing 1,701 lbs. at 2 years and 10 months. The Aberdeen-Angus breed supplied the champion over all breeds in the Earl of Strathmore's heifer, Brunhilde, bred by the exhibitor, weighing 1,832 lbs. at 2 years and 9 months. The first-prize two-year-old steer of this breed was an exceedingly good one named Cock of the North, shown by Mr. J. J. Cridlan, and which weighed, at 2 years and 10 months, 2,025 lbs. Mr. W. E. Learner's two-year-old Meikle Tarrel bred heifer, Madaline, got by an Aberdeen-Angus bull, and out of a cross-bred cow, by the Shorthorn bull, Kingleader, was the championship winner in the cross-bred class, and is said to come very near the standard which the great feeders have aimed at. She weighed 1,790 lbs.


Sheep were strongly shown in all the Down breeds, the longwools being unrepresented. In Southdown yearling wethers, first and second awards went to Col. McCalmont's entries. The first-prize pen of three weighed 652 lbs., and the second-prize pen, 693 lbs. The same exhibitor was first for pen of lambs, the weight of the trio being 479 lbs.

The first-prize pen of Shropshire yearling wethers were bred and shown by P. L. Mills, Ruddington, and were a very sweet and well-matched pen, weighing 801 lbs. The first-prize pen of lambs were from the flock of Lady de Rothschild, and scaled 480 lbs. The first-prize pen of Oxford wethers were shown by Miss A. de Rothschild, and were ripe sheep, weighing 756 lbs. Mr. Stigoe's first-prize pen of Oxford lambs were remarkably ripe, and weighed 535 lbs. the trio.

Hampshires were out in capital form and condition, Lord Rothschild's yearling wethers being first in the class of half a dozen entries. They were a remarkably fine pen, and carried off the championship for the best pen of Down sheep in the show, their weight being 888 lbs. Mr. P. F. Luxton had the first-prize pen of lambs. They were full of quality, and their weight was 579 lbs., an average of 193 lbs. each.

Pigs were well shown in the Berkshire, Middle White, and Tamworth breeds, the Large Whites being sparsely represented. In Berkshires, Mr. Benjafield had the first-prize pair not exceeding nine months; Mr. J. A. Fricker was second. For pair between nine and twelve months, Mr. Fricker had the first. For single pigs of this breed exceeding twelve months there were half a dozen competitors, and Mr. Benjafield's entry was the winner, Mr. Fricker's being second. The Tamworths showed very marked improvement in quality and color, the entries being handsome pigs, shapely and of the rich golden color that is so much admired. Their capital hair bespeaking the right kind of flesh underneath. The first award for a pair between nine and twelve months went to Mr. H. R. Stock's entry, Mr. Ibbotson's being second and third. In the class under nine months, Mr. Mitchell was first and Mr. D. W. Phillip second. For the single pig prize, Mr. R. Ibbotson won first with a 20-months pig of good quality.

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If you have horses or cattle afflicted with any lump, swelling or enlargement, you can cure them with Fleming's Lump Jaw Cure.

Ordinary lumps usually removed by one application. Lump Jaw once incurable, now cured by one to three applications.

FLEMING'S LUMP JAW CURE

Every Bottle Guaranteed.

Cures Spavin, Curb, Splint, Ringbone, etc. A reliable blister and counter-irritant, and a certain horn-stop.

Institute, Muncney, Ont., July 25th, '99.
Gents.—Send another bottle of Lump Jaw Cure. The last was a success in a far advanced state of the disease.
REV. W. W. SHEPHERD, per Secretary.

Our Illustrated Pamphlet on cure of Lump Jaw and other diseases should be in the hands of every farmer and stockman. Free to readers of this paper.

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Write to-day Ask for Pamphlet No. 1.

FLEMING BROS., 58 Bay St., Toronto, Ont.

At the annual meeting of the Canadian Banded Rock Club, held at the time of the Winter Fair at Guelph, Ont., Dec. 11th, the following officers were elected: President, Wm. McNeil, London; Vice-Presidents, W. C. Fyfe, Montreal; J. S. Jentry, St. Catharines; J. Geo. Goodwin, Halifax; Secretary-Treasurer, J. W. Kedwell, Petrolia; Director, J. F. Bennett, Toronto; A. E. Sherrington, Walkerton; J. McKay, Clarksburg; Gus A. Langher, Quebec; L. K. Willard, Dundas; N. Cosh, London; W. R. Graham, Guelph; J. W. Porteus, Galt; J. W. Kedwell, Petrolia.

GOSSIP.

D. G. Ganton, Elmvale, Ont., writes: Our trade in Shropshire sheep and Yorkshire hogs has been all that we could wish for the past season. We have had numerous enquiries from all parts of the Dominion and several States, thanks to the wide circulation of the "Advocate," and made many good sales, a few of which we give below. One brood sow to G. Goddard, of Hillsdale; to Isaac Ritchie, Saurin, Ont., one brood sow; to John Tracey, Minesing, Ont., one boar; to James Goddard, Hillsdale, Ont., one boar; to Robert Petters, one sow; to H. S. Hugh, Wis., one ram; to A. A. Armstrong, Minesing, Ont., ewe and ram; to James Reynolds, Wyebridge, two ewes; to J. J. Robinson, Vasey, Ont., four ewes and one ram; to P. Grant, Greenbank, Ont., two ewes; to G. Nightingale, Wyevale, Ont., one stock ram; to J. A. & M. Rowat, Hillsdale, Ont., one ram to head flock; to Albert Palmer, Renfrew, Ont., one ram; to T. W. Vansicle, one ram; to Daniel Ragan, Vergennes, Vt., two ewes and ram; to Dr. A. W. Heaslip, Hillsdale, Ont., six ewes and ram; to Robert Petters, twenty ewes in lamb to Mansell ram; to Robert Miller, Stouffville, Ont., 30 lambs; to John Anderson, Crossland, Ont., one collie pup; to P. Hart, Belleville, Ont., one collie pup; to G. Crawford, Minesing, Ont., one collie pup; to Mrs. W. K. McCulloch, Oshawa, Ont., one collie pup. Our flock is now headed by two choice Mansell rams, and is the largest flock in the county.

LEONARD BURNETT'S SHORT-HORNS AND SHROPSHIRE.

Hillsdale Stock Farm, situated about three miles east of the Town of Uxbridge, on the G. T. R., is composed of 333 acres of ideal farm land, watered by living springs, and furnished with first-class farm buildings, the basement stables being splendidly arranged for facility of feeding, with good light and ventilation and filled with a splendid lot of low-down, fleshy, up-to-date Shorthorns. The owner, Mr. L. Burnett, whose post office is Greenbank, Ont., has been breeding Shorthorns for twenty years. The herd was founded on animals purchased from the late J. M. Bell, of Atha, and the Hon. John Dryden, and were bred directly from imported stock. Mr. Burnett being a business man and knowing that nothing succeeds like success, and that success is only secured by keeping and breeding the best, has been extremely careful in the selection of the sires used on his herd, always choosing those as nearly perfect in conformation and best type as possible. Knowing full well that like begets like, a recital of the names of a few of the sires used on this herd will show that, from a breeder's standpoint, the selections could scarcely have been improved on. Royal Bampton (imp.), Stanley (imp.), Sussex (imp.), William Rufus (imp.), Victory (imp.), Bold Boy, Prince Rowan, Golden Earl, the last three bred by Mr. Dryden. The present stock bull is Imp. Count Sarcasm, imported by Cargill & Son, bred by Duthie, and of the fashionable Cruickshank Secret family. He is a perfectly-balanced, meaty bull, showing in his make-up those desirable qualities always seen in the top notchers, while as a sire, the young things on the farm indicate that he will make a name among the noted sires. The herd, which now numbers about thirty head, are all sired by the various bulls mentioned, and among them are some young bulls and heifers that Mr. Burnett will price that are good ones indeed: short-legged, deep, fleshy bodies, splendid backs, and bred in the purple. Representatives of this herd can be found in nearly every section of the country, but, notwithstanding the numerous sales this year, there is still young stock of both sexes that are well worth looking after by intending purchasers. In another building on the farm can be seen Mr. Burnett's splendid flock of Mansell-bred Shropshire sheep, which are in the pink of condition, and in build and covering are perfect types of first-class Shropshires. This year's lambs are sired by an imported ram of Harding's breeding. There are for sale, 25 ram lambs and 15 ewe lambs, extra good ones.

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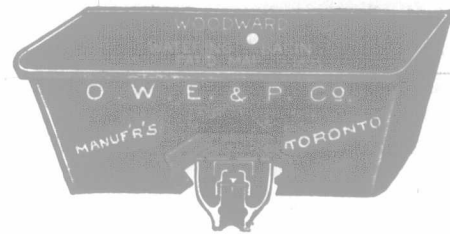
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FOR SALE: Berkshires (both sexes), Shorthorn stock bull, cows, heifers and young bulls. Prices reasonable. Write or come and see us.

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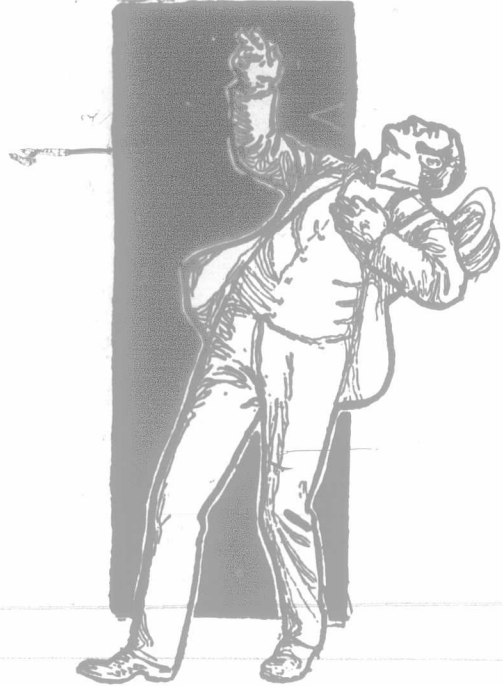
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Ninety Per Cent of it Really Caused From Poor Digestion.

Real organic heart trouble is incurable, but scarcely one case in a hundred is organic.

The action of the heart and stomach are both controlled by the same great nerves, the sympathetic and pneumogastric, and when the stomach fails to properly digest the food, and it lies in the stomach fermenting, gases are formed which



distend the organ, causing pressure on the heart and lungs, causing palpitation, irregularity and shortness of breath.

The danger from this condition is, that the continued disturbance of the heart sooner or later may cause real organic heart trouble, and, in fact, frequently does so.

Furthermore, poor digestion makes the blood thin and watery, and deficient in red corpuscles, and this further irritates and weakens the heart.

The most sensible thing to do for heart trouble is to insure the digestion and assimilation of the food.

This can be done by the regular use after meals of some safe, pleasant and effective digestive preparation, like Stuart's Dyspepsia Tablets, which may be found at most drug stores, and which contain the necessary digestive elements in a pleasant, convenient form.

Thousands of people keep well and vigorous by keeping their digestion perfect by observing the rule of taking one or two of these tablets after each meal, or at least, after each hearty meal.

Stuart's Dyspepsia Tablets contain U. S. P. pepsin, diastase from malt and other natural digestives, which act only on the food, digesting it perfectly and preventing acidity, gases, and the many diseased conditions which accompany a weak stomach.

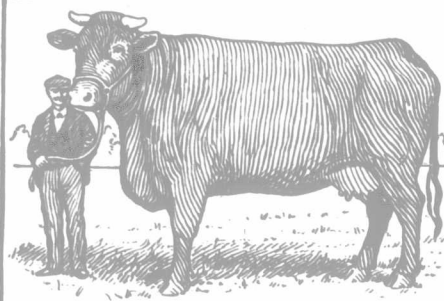
When Stuart's Dyspepsia Tablets are used you may know you are not taking into the system any strong medicine or powerful drug, but simply the natural digestive elements which every weak stomach lacks.

So widely known and popular have these tablets become that they are now sold by every druggist in the United States, Canada, and Great Britain.—Adv't.

GOSSIP.

Canada's foremost herd of bacon-type Poland-China hogs is owned by R. L. Smyth & Sons, whose well-appointed farm lies in the County of Kent, one mile north of Fargo station on the Erie, Huron & Michigan Central Railway, and seven miles from Chatham. Mr. Smyth has been breeding this strain of hogs for 17 years, and during that time great changes have taken place in the type and conformation of the breed, as bred by Mr. Smyth, till to-day they are getting very close to the ideal bacon type, and still retaining their well-known easy-feeding and rapid-growing qualities, thus making them a very profitable breed of hogs for the ordinary farmer. The herd, which now numbers some 80 odd, was founded on stock imported from the famous herd of Mr. John F. Somerville, of Ohio, and as the breed improved, regular importations were made in order to keep them up to the highest possible standard, until now there is probably no better herd of Poland-China hogs in the world than Mr. Smyth's owns. His present stock bear a certain resemblance to a large, lean, racy fellow, and his stock shows that as a rule he is all that could be desired. At all the leading county fairs and exhibitions, as well as at the late Guelph Fair Stock Show, this herd invariably won the boards, winning practically every honor offered. Anyone wanting any of the breed at Fargo post office, where they can be assured of square dealing.

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This Book Contains 183 Large Colored Engravings of Horses, Cattle, Sheep, Hogs, Poultry, etc., and of this Cow. It costs \$3000 to have our Artists and Engravers make them. It contains a finely illustrated Veterinary Department that will save you Hundreds of Dollars. Gives description and history of the Breeds of Horses, Cattle, Sheep, Hogs and Poultry. THIS BOOK FREE, Postage Prepaid, If You Write Us a Postal Card and Answer 3 Questions: 1st—Name this Paper. 2nd—How much stock have you? 3rd—Did you ever use "INTERNATIONAL STOCK FOOD" for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs or Pigs. The Editor of this Paper will tell you that you ought to have a copy of our finely illustrated book for reference. The information is practical and the book is Absolutely Free. The information is practical and the book is Absolutely Free. We Won the Highest Medal at Paris in 1905.

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Canadian Hereford Breeders' Association.

The 11th annual meeting of the Canadian Hereford Breeders' Association was held in the City of Guelph on Wednesday, December 11th, at the Royal Hotel, and was the best attended in the history of the Association. The President, Mr. W. H. Hunter, of "The Maples," Ont., occupied the chair, and among others present were: Messrs. Mossom Boyd, Bobcaygeon, Ont.; J. A. Chapman, Beresford, Man.; Asa Warnick, Painswick; A. H. Stone, Guelph; H. Reid, Mimosa; W. K. Gooding, Arkell; H. G. Wade, Toronto; J. McDiarmid, Duntroon; W. H. Hammell, Beeton; J. A. McDiarmid, Stayner, and H. Wade, Toronto.

In opening the meeting the President said that the steps taken to improve the Hereford breed were meeting with success. A brighter day was dawning for that breed, and the outlook was most hopeful. The secretary, Mr. Henry Wade, of Toronto, in his annual report, said that the year had been a good one for Hereford owners. They had taken high standing at Winnipeg, Toronto, Sherbrooke and Nova Scotia fairs. Sales had been excellent in Canada and the United States, a number of Canadian animals having been sold at good prices for shipment to Texas. There were now 1,050 pedigrees ready to print in volume two, one-third as many as those in volume one. During the year 263 registrations and 127 transfers were paid for, 37 less than the previous year. If exhibitors at the Industrial Exhibition were compelled, as requested by the directorate, to register with the Association the members would be materially increased. The membership of the Association showed a gain of five. The financial statement showed a cash balance of \$407.

The following is a synopsis of the resolutions adopted: (1) That the editor, Mr. H. Wade, be authorized to publish the second volume of the Canadian Hereford Herdbook. (2) That the Hereford Breeders' Association join the Cattle Breeders' Association on the same terms as has already been done by other associations. (3) That the Hereford Association will be pleased to have the managers of the St. Louis World's Fair appoint Mr. Skinner, of Chicago, a member of the International Live Stock Association as commissioner for the management of the live-stock department of that fair, and that the President and Secretary sign a memorial to that effect. (4) That the Hereford Breeders' Association resolve that the Dominion Government be petitioned to change the present veterinary act as regards the restrictions on shipping between Britain and Ontario, and also to the United States, and that a deputation be appointed by this Association to act with the Shorthorn Breeders' Association in this matter. The President and Secretary were appointed to act under this resolution. (5) That Mr. C. F. Complin, of London, Ont., be appointed auditor. The following officers were elected: President, W. H. Hunter; Vice-President, A. Stone; Vice-Presidents for the Provinces: Ontario, J. A. McDiarmid, Stayner; Quebec, H. D. Smith, Compton, Que.; Manitoba, J. A. Chapman, Beresford, Man.; Maritime Provinces, W. W. Black, Anherst, N. S.; Directors: A. Rawlings, Forest; A. S. Hunter, Dundas; F. Copland, Harrison; A. H. O'Neill, Southgate; Mossom Boyd, W. J. Hammell, H. Reid, Asa Warnick. Representatives to the Provincial Winter Fair, All Stone, W. R. Goodwin. Delegates to Toronto Industrial Exhibition, W. H. Hunter and W. J. Hammell; to the London Exhibition, H. Wade; the Ottawa Exhibition, Mossom Boyd; Winnipeg Exhibition, J. A. Chapman.

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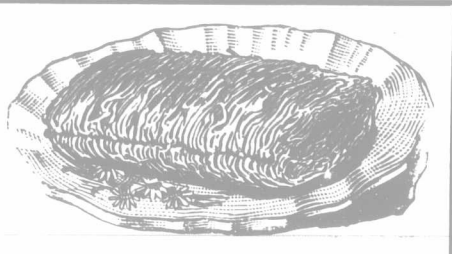
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Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission. Quotations given, and all enquiries answered.

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American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.

BROAD LEA OXFORDS.

We have a choice lot of lambs this year, bred from our imported rams, Royal Warwick 3rd and May King 1st, some weighing 17 lbs. at birth. Also some good shearing ewes and rams. Also a few shearing ewes and rams fitted for show purposes. All of which we are offering for sale at reasonable prices.

HENRY ARKELL & SON, Teeswater, Ont.

SUMMERHILL OXFORDS.

Present offering: A choice lot of ram lambs and ewe lambs. Also 50 extra nice yearling ewes. PETER ARKELL & SONS, Teeswater, P. O. and Station.

IMPORTED COTSWOLDS

We are now offering some choice shearlings of both sexes; also this season's crop of lambs, sired by Imp. Swanwick.

BROOKS & LANGMAID, COURTICE P. O.

SIX MILES FROM OHAWA STATION, G. T. R.

COTSWOLD HILL STOCK FARM

Offers imp. and home-bred Cotswolds of both sexes and all ages, from the champion flock of Canada for the last six years.

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Pure-bred Cotswolds—choice quality

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Cotswold Ewes and Ewe Lambs

of good quality and breeding. Also a registered station, 1 year old, and one hilly foal. Good ones. Write for particulars.

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Rams and ewes (all ages), consisting of those bred at Fairfield and importations from the flocks of Dudding, Dean, Wildsmith and Wright. A new importation of 103 head will arrive at Fairfield, Sept. 1st, including first-prize yearling ram, yearling ewes, ewe lambs and ram lambs, also first-prize and champion 2-year-old ram and third-prize 2-year-old ram at the Royal Show, and 70 yearling rams and 30 yearling ewes. I can supply show flocks that will win.

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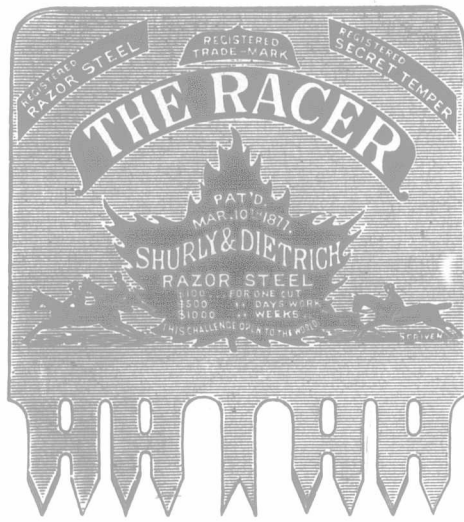
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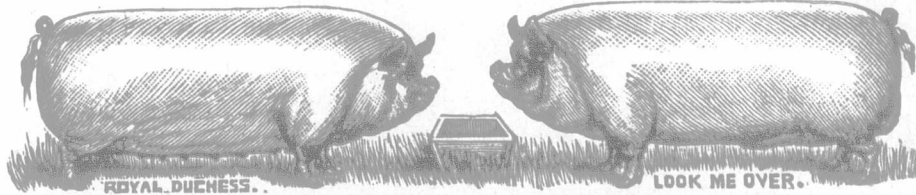
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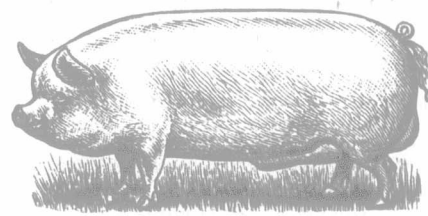
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