



Volume XLI. Number 4.

TOPEKA, KANSAS, THURSDAY, JANUARY 22, 1903.

Established 1863. \$1 a Year

KANSAS FARMER.

Established in 1863.

Published every Thursday by the
KANSAS FARMER CO., - - TOPEKA, KANSAS

E. B. COWGILL.....President
J. B. McAFEE.....Vice President
D. C. NELLIS.....Secretary and Treasurer

SUBSCRIPTION PRICE: \$1.00 A YEAR

E. B. COWGILL.....Editor
I. D. GRAHAM.....Associate Editor
H. A. HEATH.....Advertising Manager

Entered at the Topeka, Kansas, postoffice as second-class matter.



ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch). Continuous orders, run of the paper, \$1.54 per inch per week.
Special reading notices, 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per agate line for one year.
Annual cards in the Breeders' Directory, consisting of four lines or less, for \$16.00 per year, including a copy of the Kansas Farmer free. Special rates for displayed live stock advertising.
Special Want Column advertisements, 10 cents per line of seven words per week. Cash with the order.
Electros must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.
To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.
All advertising intended for the current week should reach this office not later than Monday.
Every advertiser will receive a copy of the paper free, during the publication of the advertisement.
Address all communications to

KANSAS FARMER CO.,
116 West Sixth Ave., Topeka, Kans.

Table of Contents

Abortion problem solved, the cattle.....	83
Alfalfa as a bone-producer.....	101
Borman, T. A.....	90
Coburn and the exposition.....	81
Coburn report, a big.....	81
Cottrell, H. M.....	101
Cream of the business, the.....	93
Dairying in Kansas from a stock-breeders' standpoint.....	92
English blue-grass culture, and its special value.....	95
Graham, I. D.....	85
Honors won by Kansas breeders.....	85
Jensen, W. F.....	92
Kansas feeds and Kansas cows.....	91
Kansas improved stock-breeders' association.....	83
Live-stock pedigrees—value and abuses.....	100
Moffet, Geo. W.....	100
Marple, W. W.....	93
Mayo, Dr. N. E.....	99
National live-stock association.....	83
Otis, D. H.....	102
Plants injurious to animals.....	99
Plumb, Geo.....	95
President Harrington's annual address.....	82
Secretary Heath's annual report.....	82
Sheep industry for Kansas, general discussion on the.....	98
Show-ring, fitting cattle for the.....	85
State board of agriculture, the.....	83
Stock-breeders' duty to Kansas farmer.....	90
Stock-breeders, to Kansas.....	81
Swine at the Agricultural College, results of feeding.....	102
Tomson, J. G.....	85
Webster, Ed. H.....	91
Wolf, Dr. O. O.....	83

BLOCKS OF TWO.

The regular subscription price for the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for both. In like manner two new subscribers will be entered, both for one year, for one dollar. Address, Kansas Farmer Company, Topeka, Kansas.

The great amount of live-stock matter presented in this week's KANSAS

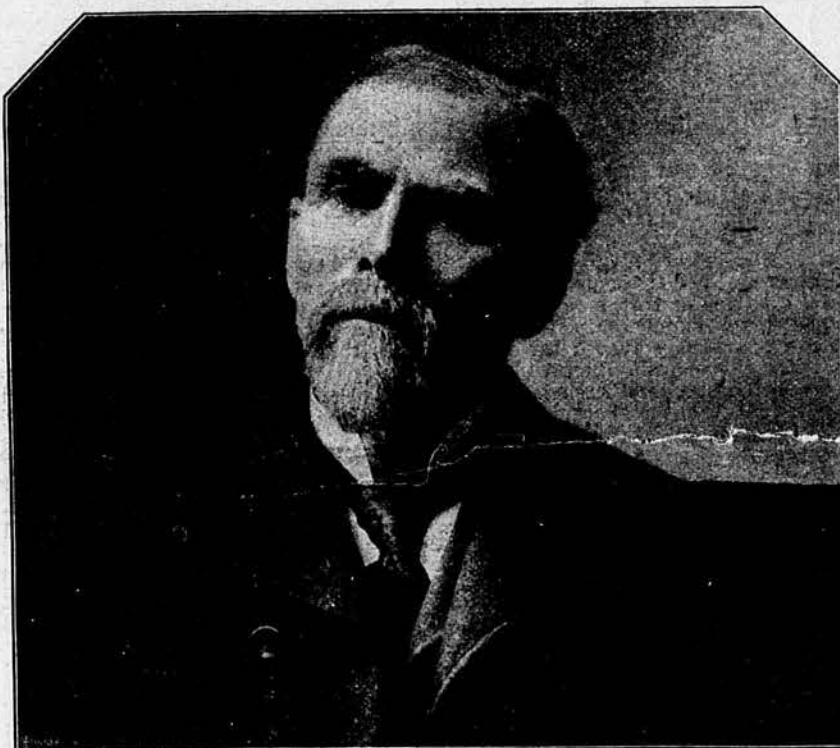
FARMER makes it necessary to crowd out almost everything else. If the general reader will but be patient he shall have his innings very soon. But really the papers given in this KANSAS FARMER are an exceptionally interesting and valuable lot.

Under satisfactory assurances of a clean State fair the farmers of Kan-

spring. Address H. A. Heath, secretary Kansas Improved Stock-Breeders' Association, Topeka, Kans.

COBURN AND THE EXPOSITION.

One of the important events in the development of the Universal Exposition in commemoration of the Louisiana purchase is the success of the management in securing Sec. F. D. Co-



F. D. COBURN,

Chief of Department of Live Stock at the Universal Exposition.

sas favor it and in general will justify a suitable appropriation to place the Kansas fair in the same class with the State fairs of neighboring States. That a State fair can be so managed as to be entirely free from the characteristics which have caused farmers to shun and even oppose them was abundantly proven and conspicuously illustrated last year by the Missouri State fair. But the Legislature can not make too iron-clad the provisions to insure freedom from objectionable features.

TO KANSAS STOCK-BREEDERS.

This week's KANSAS FARMER contains a very complete report of the thirteenth annual meeting of the Kansas Improved Stock-Breeders' Association, the best ever held. Over one hundred new members have been added to the roll, which makes about 650 in all to date. The membership should be increased to one thousand by February 1, 1903, as soon after that date the association will get out a very large edition of the Stock-Breeders' Annual for 1903 and the classified Kansas Breeders' Directory. Every stockman interested in pure-bred stock or improved methods of breeding and feeding is urged to become a member for 1903 for only one dollar. It is proposed to materially advance the initiation fee for next year and the present time is the only opportunity to become identified with this great organization for the present nominal fee. The benefits received are worth many times the cost. In sending in your dollar be sure to mention the class of stock you breed, the number you own, also what you have for sale or wish to buy this

burn, of the Kansas State Board of Agriculture, as chief of the department of live stock. Congratulations are due to the president of the Exposition Company, Ex-Governor Francis, on the acquisition of Coburn, a man known throughout the civilized world, and especially well known for his public services in the interests of improved live stock.

Under Coburn's management there will never be any jobbing in his department and no breed or class of animals will fail to receive just recognition. Breeders will know that a great and each will be eager for a part in it. exposition of live stock will be made. The KANSAS FARMER last week stated the conditions on which it thought Kansas might spare a part of Mr. Coburn's services for the creation of a fitting exhibit of live stock. It will be seen from the following letter from the exposition president and the resolutions adopted by the Kansas State Board of Agriculture that the terms outlined by the KANSAS FARMER were complied with:

FRANCIS' LETTER TO COBURN.

My Dear Sir:—After long consideration of the most suitable chief for the live stock section of the Louisiana Purchase Exposition our executive committee authorizes me to tender you the position and requests that I urge your acceptance at the earliest possible moment, your services to begin at once and date from January 1 proximo. In consideration of the importance and significance of this position to the live-stock interests of the country our committee and myself trust the Kansas Board of Agriculture will see its way clear to cheerfully grant you such temporary leave of absence from its detail

work as will make your services available here. We can not but feel that your people will regard our choice as no small compliment to the board and its secretary. Very truly yours,
D. R. FRANCIS, President.

RESOLUTIONS OF THE STATE BOARD OF AGRICULTURE.

Whereas, At the approaching Louisiana Purchase Exposition, to be held in St. Louis in 1904, the greatest opportunity ever offered in the history of civilization will be easily available to our people for the exhibition, exploiting, and advertising of their varieties of live stock, including horses of all classes, asses and mules, beef and dairy cattle, swine, sheep, goats, and poultry; and

Whereas, Whatever revelation of our live stock resources may be made at St. Louis will redound to the glory of our common country and contribute to its prosperity; and

Whereas, It is essential to the highest success of this department of the great exposition that it shall be in the hands of the most capable management possible to name in order that the generalship of the magnificent business be not marred by incompetency or unfairness at headquarters; and

Whereas, Without the solicitation of himself or his friends, our secretary, Hon. F. D. Coburn, has been appointed to the headship of this department, the important and honorable position of chief of the department of live stock of the Louisiana Purchase Exposition, and the loan of his services urgently requested from this board for its duties.

Resolved, That the State Board of Agriculture, fully appreciating the high compliment paid to our State, to this board and its secretary, by his appointment, urges Secretary Coburn to accept the position tendered, and cheerfully awards to him whatever temporary leave of absence may be necessary for the performance of the important duties with which the exposition management desires to intrust him, he to continue in general supervision and control of our board's office work as heretofore, with the details in the hands of the assistant secretary, conditioned only on his furnishing an assistant in performing the routine duties of his office while temporarily absent.

The success of the live-stock exhibit at the great exposition is now assured. The one million dollars that it is said will be devoted to prizes will be judiciously and fairly placed and honestly awarded, and the greatest show of live stock ever made in any country will be created.

This work will occupy a large part of Mr. Coburn's time and energy for the next two years, after which Kansas will again claim his undivided services.

A BIG COBURN REPORT.

The Thirteenth Biennial Report of the Kansas State Board of Agriculture has just been issued from the press by the State printer. It is a stout volume of 1,127 pages. The value of the work is sufficiently attested by the name "Coburn" printed at the bottom of the cover. The book is arranged in six parts containing information upon the origin, history, characteristics, adaptability merits and performances of Shorthorn, Hereford, Aberdeen-Angus, Galloway, Red Polled and Polled Durham cattle; wheat and wheat-growing in Kansas; the breeding, rear-

(Continued on page 83.)

KANSAS IMPROVED STOCK-BREEDERS' ASSOCIATION....

Thirteenth Annual Meeting Held at Topeka's New Auditorium, January 12, 13, and 14, 1903. The Greatest Meeting Ever Held by the Association. A Magnificent Program with a Big and Enthusiastic Attendance. A Complete Report.

OFFICERS FOR 1903.

President.....Chas. E. Sutton, Russell
Vice President.....Dr. O. O. Wolf, Ottawa
Secretary-Treasurer.....H. A. Heath, Topeka
Assistant Secretary.....I. D. Oraham, Topeka
Directors.
J. C. Robison, Towanda; A. L. Sponsler, Hutchinson; E. W. Melville, Eudora; H. W. Avery, Wakefield, and C. M. Irwin, Wichita.

The thirteenth annual meeting of the Kansas Improved Stock-Breeders' Association was the largest and most enthusiastic in its history. It was characterized by a large attendance, a very high quality of papers presented, and the genuine Kansas enthusiasm. The interest increased from the beginning and the members and visitors retired from the closing session with regrets that it could not continue longer. Whatever else may be said in favor of this association it must be denominated as a strictly business body. The entire time of the members was occupied in the listening to and profitable discussion of the papers presented. Only fifteen minutes were required to elect the new board of officers, and this one statement alone, coupled with the statement that during the seven sessions of the meeting both the interest and attendance grew, is sufficient explanation of the success which has placed this association at the head of its kind. It is now the largest breeders' organization in the United States, and by far the most enthusiastic. A large accession to the membership has been had at this meeting and much credit is due to the retiring officers for the great success obtained. President Harrington made a very efficient presiding officer, and it is with regret that we see him leave the chair, although we have peculiar pride in the wisdom of the association which placed a young man, a former Agricultural College student, a prominent breeder, and a genuine Western hustler, in the chair. If Charles E. Sutton, the new president, can retire from the chair at the expiration of his term with such genuine affection as was felt for his predecessor, he will have done well, but no more than we predict for him.

To the untiring energy and well-directed efforts of Secretary Heath was due in large measure the splendid program which was rendered and the successful outcome of the meeting. The Secretary and his new assistant received many congratulations on the beautiful souvenir program which they got up for this meeting.

This association is by far the most powerful and influential in the State of Kansas, and when it asks of the Legislature the passage of any bill looking to the good of the State, we have no fear of failure. Several resolutions, for the future good of the State, were acted upon, as shown by the proceedings, and we feel that the enthusiasm generated at this meeting will result in a new era for the pure-bred livestock and allied interests of the State in the future.

In place of the usual breeders' banquet, the members of the association accepted the invitation of the Topeka Commercial Club to an informal reception and smoker at the New Oxford Hotel on Wednesday evening, January 14. It was a great social session and over 300 members of the association, State Board of Agriculture, and members of the Legislature had a regular jollification. Senator Harris was present and a number of other notables, and it was a function that everybody greatly enjoyed.

Following will be found a complete report of the proceedings and a reproduction of the papers read at this great meeting. We feel sure that the members of the association who were not able to attend as well as the farmers of the whole Southwest will preserve this great number of the KANSAS FARMER for the many good things it contains as a result of this meeting.

MONDAY AFTERNOON SESSION.

The thirteenth annual meeting of the Kansas Improved Stock-Breeders' Association was called to order by President E. Harrington promptly at 2 o'clock in the council chamber, City Building, in the city of Topeka. Upon notice, the recommendation of the executive committee as to delegates to the National Wool Growers' Association was approved, and the President named a delegation of ten members.

Secretary's Annual Report for 1902.

H. A. Heath, secretary and treasurer, presented his annual report, which was, on motion of F. P. Maguire, unanimously approved and adopted:

The year 1902 has been the most satisfactory from every standpoint in the career of our association. Our members have, according to my information, enjoyed a year of unusual prosperity notwithstanding the shortage of feed and the high prevailing prices paid for the same by those who had to buy feed early in the year. However, the bountiful crops and higher prices realized for all classes of stock later in the year made 1902 a record-breaker of prosperity for Kansas stock-breeders.

In my last annual report I said:

"We have already received up to and including Saturday, January 4, 1902, 123 membership applications for 1902, of which number 91 are new members, and still there are more to follow. Our total membership for 1901 numbers 284, and does not include the names of 1900 members who renewed their membership for 1901. It is the top-notch record for members since the consolidation with the Kansas Swine-Breeders' Association in 1899 brought the membership up to 173. In 1900 it increased to 188, and last year, 1901, the membership advanced to 284. If the good work and interest continues, the present year should realize at its close at least 500 active members. It ought to be 1,000."

It now appears that the interest and good work has continued and during 1902 we reached the high-tide mark for membership and the year just closed gave our association 521 members representing seventy-seven counties in Kansas. It has the largest and wealthiest membership of any of the industrial State societies. The Kansas Improved Stock-Breeders' Association also enjoys the distinction of being the largest association of its kind in the United States.

The breeds of pure-bred cattle represented by the membership rank in numerical strength as follows: Short-horns, Herefords, Aberdeen-Angus, Galloways, Red Polls, Jerseys, Polled Durhams, and Holstein-Friesians.

Breeders of pure-bred swine come next in the following order: Poland-Chinas, Duroc-Jerseys, Berkshires, and Chester Whites. Other pure-bred classes of stock are well represented, comprising Percheron, Clydesdale, Coach, Saddle-bred, and Standard-bred horses, jacks, and all breeds of sheep, Angora goats, etc. Then there is a miscellaneous list representing the general farmer and feeder and other allied interests.

The management of the affairs of the association during the year are left entirely in the hands of the officers and directors and in my last report I had occasion to score these officials for permitting the secretary to assume the composite of multiplied duties and responsibilities. In this report, however, I have no cause to rebel or to make a similar complaint because I have had the efficient cooperation of every officer and director, and it is very gratifying to me to make this public acknowledgement. Our excellent program this year is something of a new departure from former ones and this year's proceedings will be a practical and valuable acquisition to up-to-date livestock literature.

I wish to urge members to be active fifty-two weeks instead of one week in the year. Keep your secretary promptly informed on all matters of interest about improved stock in your locality. If your experience or observation has given something of value that is a benefit to you in particular or the

live-stock industry in general, give it to the secretary for the benefit of the association and you will receive the same in kind from others. Another thing, secure more new members from your county. This work on the part of the members is important and necessary, if we are to continue to improve the usefulness and influence of our association. We should not only maintain our present position but progress and expand.

Most fruitful results have obtained from the work of our association during the past year. The interest in pure-bred stock of all kinds and the demand for the same, as well as the attention to improved methods of livestock husbandry, has increased beyond all comparison. The farmer and the ranchman have never before manifested such deep interest and attention in improved stock as now. The big and attractive feature of all the county, State, and National fairs and expositions during 1902 was the display of fine stock. In Kansas the county and district fairs offered more liberal prizes than ever before for live stock, and it is gratifying to announce that all the fair associations not only paid out but laid up a snug balance, excepting those that were rained out.

Several thousand copies of our last year's proceedings, also the Stock-Breeders' Annual for 1902 and Kansas Breeders' Directory were distributed after supplying members. Your secretary received inquiries for many extra copies from all parts of the country and a considerable number were distributed at fairs, public sales, and farmers' institutes. We have on hand a limited number of our bound reports and those present who want any extra copies should secure them at this meeting and save the expense of mailing them out.

It is the intention of your secretary to get out an annual for 1903, which will contain the complete proceedings of this meeting and the classified Kansas Breeders' Directory. The directory will contain only the names of the members of this association. It will be classified first alphabetically by names, then by counties, and lastly by breeds of stock and other divisions. Members in attendance at this meeting who desire extra copies should leave their orders with the secretary. The cost to members for extra copies in quantity will simply be the expense of mailing, 5 cents per copy, and I suggest that every member send a copy to each of his customers and friends, with his compliments.

For this meeting your secretary has sent out about 3,000 letters to stockmen in Kansas who should be members of this association and invited them to attend this meeting. Quite a number of names were furnished by members and we have already received a large number of applications for new memberships for 1903.

FINANCIAL REPORT.—RECEIPTS FOR 1902.

For membership fees.....\$397.00
From sundry accounts..... 16.00

\$413.00

Book accounts.....\$73.50
Due from membership fees..... 89.00

162.50

Resources Dec. 31, 1902.....\$575.50

The expenditures for the year 1902, including the expenses of the twelfth annual session, annual banquet, stationery, postage, clerical help, stenographic work, compiling and distributing the Stock-Breeders' Annual and Kansas Breeders' Directory, etc., per itemized statement herewith...\$305.55
Secretary's salary..... 100.00

Total expenditures for 1902...\$405.55

Owing to the aggressive policy of expansion of our association we are not creating a great surplus, in fact we are giving every member five times the value of his annual dues whether he attends the meeting or not. Those who do attend get twice the benefit of the stay-at-homes. However, it has always been the desire to make every member realize that it is a good thing to be identified with this association.

The Stock-Breeders' Annual for 1902 was an 84-page book, containing the proceedings of the twelfth annual meeting of the Kansas Improved Stock-Breeders' Association. It also contains the Kansas Breeders' Directory. This is a classified directory of the membership by names, counties, and breeds. This Annual is certainly a creditable exponent of Kansas' greatest industry. No State in the Union has ever made so notable an exhibit of the advance movement in improved

stock as does Kansas in this Annual and Directory.

With the large edition of the Annual and the special edition of the KANSAS FARMER we distributed some thirty thousand copies of our last year's proceedings, thanks to the liberality of the KANSAS FARMER, and to the patronage of the advertisers who contributed the greater portion of the cost of the edition of our 1902 Annual. In appreciation of this public-spirited enterprise of our publisher, the KANSAS FARMER, and our advertisers, it should be the pleasant duty of every member to reciprocate the favor so far as possible.

The Kansas Breeders' Directory makes a magnificent showing of the magnitude of the improved stock interests of the blessed State of Kansas. It cost just three times as much to mail out the 1902 Annual as it did the one we got out in 1901. The Annual and Directory has been a great benefit to the membership, as well as a valuable contribution to live-stock literature for the information of the farmers and stock-raisers of the State; also a potent factor for promoting the objects of our association.

I think I may refer with pride to the Souvenir program which we have for this session. It is an appropriate innovation never before undertaken by any of the State industrial societies. Our members will find a list of the leading business firms of Topeka who would be glad to meet you while at the State capital. It will also be observed that in place of our annual banquet that we are to be the guest of the Topeka Commercial Club who tender us a complimentary reception and smoker.

In closing my annual report I desire to express my thanks to the daily and weekly newspapers for their enterprise and kindness in giving publicity to the Kansas Improved Stock-Breeders' Association.

President's Annual Address.

E. HARRINGTON, BAKER, KANS.

I greet you at this, our thirteenth annual meeting, and congratulate you that we are permitted to meet under such favorable circumstances.

While our friends of the Eastern States are wrestling with the dreaded foot and mouth diseases among their cattle, Kansas, so far as we know, is entirely free from that or any other contagious disease, making it safe to ship the cattle of Kansas to any part of the known world without fear of spreading any infectious disease.

Horses, always healthy in Kansas, have maintained their records for health, for a diseased horse is rarely, if ever, seen in the State. I am glad to report that the dreaded disease known as hog-cholera has made its appearance in but a few localities. There may be some scab among the sheep, but the dipping process is fast correcting that, so that the flocks and herds of Kansas can pass inspection anywhere. Up to date I know of no disease that has had the nerve to tackle the Billy-goat or the Angora.

Providence has dealt kindly with the members of this association, for which we are truly thankful. Our membership is constantly on an increase. We have grown from 22 to the high-water mark of 550, giving us the largest membership of any State in the Union. The quality is equal to the quantity, for our members are all live, active wealth-producers. As I have been called upon from time to time during the last year to give you standing and reputation for truth, veracity and reliability as breeders, I have been accustomed to say that if he is a member of the Stock-Breeders' Association in good standing and advertises in the KANSAS FARMER, then you can trust him.

The fine-stock breeders of Kansas have established, and they must maintain, a reputation for honesty and fair dealing. In all their dealings they must be, like Caesar's wife, above reproach.

If any of you know of a disreputable or dishonest breeder among us, report his name and case to me, and if I find upon investigation that the charges are true I will recommend his expulsion from the association.

While our membership has grown, yet there are lots of good reliable breeders in Kansas who do not belong to our association. Kansas is a grand State, 200 miles broad, 400 miles long, 600 miles deep and reaching to the Heavens. That we may be the grand organization we should be I urge that each member make himself a commit-

TO CURE A COLD IN ONE DAY
Take Laxative Bromo-Quinine Tablets. This signature *B.T. Jones* on every box, 25c

tee of one to cooperate with the secretary of this association in increasing our membership, and that he keep the secretary posted upon all matters in his county that will be of interest or of benefit to the stock breeders of the State.

I am sorry to have report to you that the following members have passed over the river, and on to the great beyond since our last meeting one year ago: R. S. Cook, W. O. Park, R. J. Burgan and Julius Peterson. There may have been others but their names have not been reported to me. If there are others let their names be reported to the secretary. The good book tells us that not a sparrow falls to the ground without the notice of our Heavenly Father. I hope to see our association so well organized that not a member shall pass away without fit and appropriate resolutions being passed and placed on file with the secretary of the association.

I am proud of the last annual gotten out by our secretary. It ought to be in the hands of every breeder and farmer in the State. There has been a demand for it outside of the State. I have been called upon to furnish it to friends in several States. The secretary has been called upon to send it to

all its most sanguine friends could hope for. It was a grand exhibition of fine stock. The Shorthorn was there in all his glory, but the Hereford breeders did not sulk in their tents. The Shorthorn and the Hereford were not alone, for the Bonny Blacks were there and as they were brought into the ring with their hair all curled, they looked so sleek and fat, that I could not help but say that it was only a question of time when the Shorthorn and the Hereford will have to improve or to be distanced in the race.

Yes, the horse and cattle show was truly grand. But never in the history of the State was there such a gathering of swine on exhibition. As a stock show it was a grand success and the thanks of this association are due to the men who managed it, members of this association.

I want to call your attention to the fact that in 1904 there is to be the greatest stock exhibition at St. Louis, that the world has ever seen, and perhaps ever will see, in your time and mine. We all want to be there and we want Kansas to be there with the best stock on the grounds. We must prepare for it, for it will be a battle-royal and we must begin to get ready now. As a preparation for that show we want

ly is this true of swine. Farmers are learning this and they will come to the State fair and there select the animals best suited for their wants and have them shipped when they are wanted for use. They can select them from a breeder in their own State and perhaps in their own county and can get just what is needed. The breeder can study the wants of the farmer and both will be benefited, and in due time Kansas will become the greatest stock-breeding State of the Union.

Some complaint has come to me of the difficulty in shipping breeding animals from one locality to another, on account of the excessive freight rates charged. This matter should be taken up by the traffic managers of the different roads and if it is properly placed before them, I have no doubt that they will meet the just demands of our stock-raisers, and that by a mutual co-operation the best interests of both the breeder and common carrier will be assured. Such questions need to be handled by our association and not left for the individual breeder to wrestle with. This is an age of combination, and organization must be met with organization. It must be evident to all of us that one of the results of the railway consolidations of the country and the centering of the railway management in a few hands, means readjustment of freight rates. Railway managers will no longer quarrel with their men when they demand an increase of wages, but will grant their requests and make this an excuse for boosting freight rates higher and higher. This will mean an increase of wages to the railway employees and an increase in profits to the railway capitalists, and the producer and the consumer will of necessity pay the freight. It behooves us then as stockmen and breeders to prevent unjust discriminations at our expense. I regard this as one of the most important works before us as an association.

I have said nothing to you about the grand American Royal at Kansas City last fall, simply because I am unable to do the subject justice. It needed to be seen to be appreciated and every stock-raiser in Kansas ought to have seen it. The cattle-show was immense, the hog-show was great, the sheep-exhibit was grand and the goat-show was beyond description. As I stood behind those great prize-winners and tried to comprehend the magnitude of the great exhibition, a friend came up to me and said, "Harrington, I wish I had my boy here." What a pity that every farmer's boy could not have seen that show. It was a grand object lesson. Many Kansas breeders were there and carried off their share of ribbons, and I trust that their successes will make us emulate them and spur us on to use every effort to make Kansas the greatest prize-winner at all future shows.

The Cattle Abortion Problem Solved.

DR. O. O. WOLF, OTTAWA, KANS.

In considering this subject I shall not attempt to be technical, but rather plain and practical, as I know I am addressing practical men, men who desire light on a subject that appeals to them forcibly because of the loss sustained thereby.

I question whether there is a single breeder in this presence that has not at some time or other had something to do with abortion—premature birth or miscarriage—terms between which we shall not attempt to differentiate here, as the result of each is usually the same. So I shall give the one broad definition to include all—"the expulsion of the fetus or offspring from the uterus or womb before the natural period of gestation has past."

Admitting of this liberal construction, I take it that an abortion may be either living or dead. Those little fellows that come bawling, howling and scouring into the world only to die a few days later (usually from three to five), I consider just as much of an abortion as the one that occurs between the periods of from three to seven months, which is the time when this accident most commonly takes place.

The causes which are productive of such results may be included under three general heads, accidental, habitual, and infectious.

The accidental causes, which are almost innumerable, vary with the conditions and surroundings; so no man can sit down and name them all. Among the prominent ones might be mentioned violence of any kind, such as kicks, falls, horning by other animals, and kindred accidents. Acute indigestion with gastric or intestinal flatulency, occasioned often by turning upon grass that has been frosted, especially when not accustomed to it.

Lump Jaw Spavin Curb Splint Sweeny

Cure Them

Lump Jaw in cattle, Fistula and Poll Evil in horses, and almost every blemish that a horse can have, even bad Bone Spavin, Ringbone and Knee Sprung, can be readily cured by anybody. We want to tell you how to do it, prove that you can do it, and guarantee you success in doing it. Two big booklets explaining everything sent free. Write now. Fleming Bros., Chemists, 512 Union Stock Yards, Chicago, Ill.

Large draughts of cold water or anything that produces abdominal disturbances. Febrile diseases, especially if the fever runs high. Musty or ergotized food and anything that produces a disturbance of the circulation of the uterine organs. Aconite will do this, so also will fear, or shocks, or excitement produced by the presence of blood, or strange places, such as the sale-ring. A cow laboring to bring forth her young often produces excitement and sympathy which is frequently followed by abortion. Powerful drugs, particularly large doses of drastic purgatives, such as aloes. Obesity and plethora, which figure most prominently perhaps, at time of service, by preventing conception, due to the acid condition of the contents of the uterus which they are apt to produce. This will account for the sterility of many show animals, and at least hint at the course to be pursued in overcoming it, which consists in overcoming this acidity by alkaline injections. An impoverished or an anemic condition of the system should also be taken into account. Especially liable will abortion be to occur if the cow be a heavy milk-er, fed on timothy hay alone and sheltered by something like the warm side of a barbed-wire fence. This is simply in compliance with nature's law: "The survival of the fittest."

Man can not exist on bread and water alone, neither can we expect the cow to exist and raise a fetus on a one-sided ration. Nor is this factor confined to the female alone. A feebleness of the spermatozoa produced by overwork of the male, or by improper food, must also be taken into account. Sewerage in drinking water, or too plentiful top-dressing of pastures with manure, must also be reckoned among the causes; the best time to top-dress is in the fall. It should not be done in the winter after the ground is frozen, because the decomposed material is kept on top the ground, and in the spring when the first grass is eaten, abortion may follow.

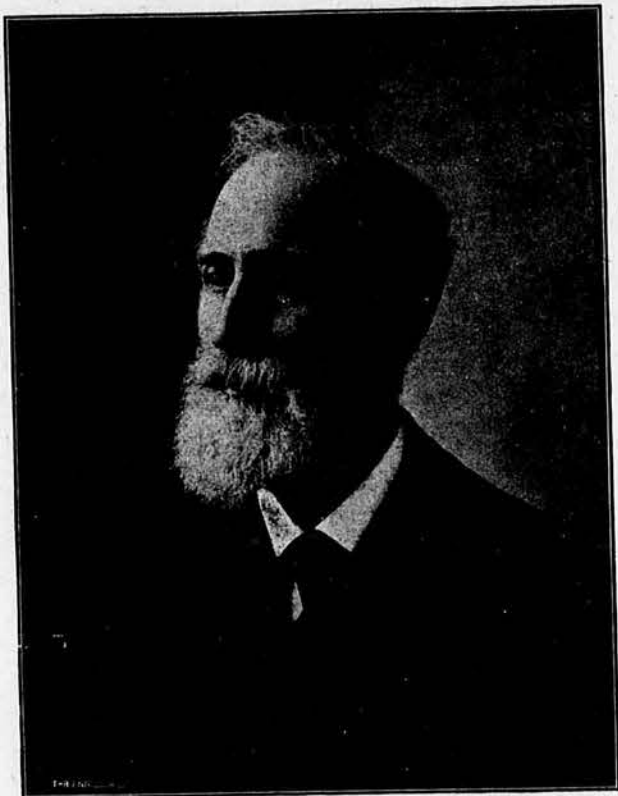
Abortion is also frequently associated with tuberculosis; not so often when the lungs are affected extensively, as they will often fail to breed in this condition, but when the ovary or womb is involved. It may also be well to mention too close inbreeding as being productive of this trouble.

Before taking up the infection phase of the subject I wish simply to mention habitual abortion, which is apt to occur in those animals that have previously aborted from accidental causes. This act leaves the uterus in a debilitated condition, and seems more liable to occur if the female is suffering from obesity, plethora, or anemia.

INFECTIOUS ABORTION.

This is, perhaps, the phase of the subject that deserves our closest attention, because of the loss it produces when once in the herd, and because of the difficulty often experienced in eradicating it when well established.

We should not, however, lose sight of the serious results which may, and are apt to, follow a case of abortion produced from accidental causes. I have, and perhaps many of you have, noticed that when we had an abortion in the herd it was usually followed by another. This is what makes every case serious; serious because it may result in our having infectious abortion. Not that infectious abortion will spring up spontaneously, but rather in the discharge which usually follows these cases, the germs, which are of two kinds, and are held responsible for its infectious character, find a fertile field for growth. One is a micrococcus known as the leptothrix vaginalis, and the other a fungus or mold, known as the penicillium glaucum. These germs form where there is heat and moisture, become dried and rise in the form of dust, lodge on the external genital organs, and if, perchance, any gets onto the moist mucous surface they find a field in which they grow, multiply rapidly and extend into the vagina and



E. HARRINGTON, Baker, the Retiring President.

foreign countries. The demand will be greater this year and we must try to meet it. It is expensive to compile, print and distribute such a work and I suggest that the Legislature be asked to make an appropriation to defray the expenses, so that every stock-breeder may have one to study at his own fireside. With a small appropriation from the State this association can and will get out a report that will compare favorably with that of any State in the Union and one that will be of great benefit to the people of Kansas.

When we met one year ago we were confronted with a shortage of feed, following the long drouth of the preceding summer. It was met and solved and the meat producers of Kansas seldom, if ever, have had a more prosperous year than the one just passed. Live, up-to-date feeders, took up the study of the balanced ration and put into practice the lessons taught by the experiment station at Manhattan. They learned to feed scientifically, and the result was fine fat cattle, hogs and sheep to go on to the Kansas City markets at good prices. The feeder who fed good stock and fed it scientifically, as a rule, made good money.

In this connection I want to impress upon you the importance of our State Agricultural College and the good work that its practical experiments are accomplishing for the farmers and stock breeders of the State. We need educated farmers, and the farmer's boy who expects to follow farming and stock raising as his life's work needs a course at our State Agricultural College, just as much as the boy who expects to be a lawyer or preacher needs a course of instruction at our State university.

At our last annual meeting there was a growing sentiment in favor of a State fair, but nothing was accomplished. During the summer and early fall, a few of our members at Topeka resolved to have a stock exhibition. It was held at Topeka and the show was

a State fair in Kansas this year that will surpass anything that we have yet had. That it may be a perfect success we want the grand State of Kansas to be behind it, I therefore recommend that this association appoint a committee to wait upon the Governor and ask him to use his influence with the Legislature to secure an appropriation for the State fair to be held this fall. I would further recommend that this committee wait upon the different members of the Legislature and secure their support for such an appropriation. They are your representatives. Tell them what you want and I feel sure they will grant it. Other States have already begun.

President Dorsey of the Kentucky Live-Stock Association has appointed a large committee to look after the interests of the blue-grass State at the World's fair. Let us see to it that Kansas is not behind. Kansas should send to St. Louis next year prize-winners in every class of live-stock exhibited. She can do so and she will if we begin the preparations now. Let the breeders of the different kinds of live stock appoint suitable persons to after their exhibits and work them up.

I urge the matter of a State fair for another, and I believe, a greater, reason. At the beginning of this address I stated that the live stock of Kansas was healthy and could be shipped anywhere with safety. We want to keep up this state of affairs. I want the breeders of Kansas to be able to furnish an animal necessary to stand at the head of any herd and improve it so that we will not have to send to any other State or any foreign nation for the head of our herds. I believe it is best for the farmers who raise cattle and hogs to fatten for the block, to buy their males from some breeder who has learned to mate and feed scientifically. Much of the breed is in the mouth, and stock for breeding purposes needs to be fed differently from that intended for the block. Especial-

uterus where they set up irritation which results in abortion.

From the foregoing we can plainly see the importance of dealing with a case of accidental abortion, as well as the cow with a retained placenta or after-birth, as rigidly and vigorously as though they were of an infectious nature. Not because, as has been indicated, either of them are so dangerous in themselves, but because of the weakened condition of the genital organs, combined with the discharge present, rendering the patient a fit subject for infection with the leptothrix, which is attracted to the seer just as the fly is to the droppings of the cat.

It is largely due to the presence of these germs, that cows suffering from leucorrhoea, which is produced by a retained after-birth, or injuries during delivery or similar causes, as well as the aborted ones are so difficult to get with calf. I do not mean to say they



DR. O. O. WOLF, Ottawa,
President Forest Park Improved Stock-Breeders'
Association and Vice President of the Kansas Im-
proved Stock-Breeders' Association for 1903.

are present in every case of leucorrhoea, but can safely say nearly all. Nor do I care to say they are the sole agents operating against a future conception in leucorrhoea, where we usually have an acid condition of the uterus present, but even when this is overcome or removed they often fail to breed, consequently I am inclined to attribute it to this.

Often conception does actually take place, but as the period corresponding to the period of oestrus rolls around, the genital organs become excited and abortion follows, perhaps at the first time she should come around or possibly after passing over three or four times. From experience with breeding herds I am inclined to think this one of the most common causes of unsatisfactory results in breeding. I have personally seen and examined small embryonic foetuses, expelled at these periods, seen the cow bred again, and similar results follow. This is most apt to occur in cows of a nervous disposition, in which the genital organs become most excited.

While in the cow is found the most common source of abortion, yet she may not be the most potent factor in spreading it.

The bull when allowed to serve an aborted cow or one suffering from leucorrhoea is apt to become contaminated. It may not be the cause of his aborting (for males do abort), but be the cause of the next cow he serves doing so.

From this we can see how important it is we see to it that the cows our bull serves are healthy, that we take him into account in trying to eradicate it, and that we realize the importance of being thorough in what we do even though traceable to accidental causes.

The preventative measures to be adopted when rising from accidental causes naturally suggest themselves, so I will not dwell on these, but simply pause long enough to recommend that a separate lot or pasture for cows far advanced in pregnancy, be provided, that a calving-pen or stall, kept scrupulously clean, is a valuable adjunct to every breeding farm; that an accurate record of dates of service be kept; that a similar record of all abortions be kept as there is a tendency for it to occur the next conception at a corresponding period or about twenty days or a month later. This process may continue until she will eventually carry her calf full time, yet she may herself be contaminated and be the source of infecting others, hence it becomes necessary that we take her into ac-

count and subject her to the same line of treatment.

If we find a cow in the herd showing signs of abortion which are manifest oftentimes by the usual signs of normal parturition, such as dullness, filling up of the udder, a placid condition of the vulva, relaxation of the ligaments of the pelvis, finally restlessness and labor pains, it may oftentimes be prevented by prompt and energetic action, if the foetus is not already dead. Sometimes it occurs without apparently any premonitory signs but when noticed I recommend dosing with fluid extract viburnum prunifolium or black haw as it is commonly called and fluid extract cannabis Indica or Indian hemp, quite heavily, especially is laboring. I have given as high as eight ounces of black haw and an ounce of the cannabis Indica at a single dose. Would not recommend for these cases less than half the above being given for the first dose and if necessary in half an hour give two ounces more of the black haw and half an ounce of the cannabis. Repeat as long as necessary. In aggravated cases chloroform may be added.

Where the foetus is dead it should be removed, the sooner the better. It acts then only as a foreign body and tends to irritate and poison her by an absorption of the decomposing material.

A cow that has previously aborted should be watched closely as the time approaches when the incident occurred. About twenty days before it took place it is helpful to give her a couple of two-ounce doses of black haw. When within two or three days of the time repeat the above. It will also be advisable to look after her in like manner every twenty days as there seems to be some excitement in the genital organs at periods corresponding to those of oestrus.

Should a cow abort in the herd she should be removed and the cleanings and foetus burned or destroyed. It is a good plan to inject into the vagina of the cow about a gallon of water heated to 100 degrees Fahrenheit, to which is added some antiseptic, such as bichloride of mercury, 1 to 2,000, or creolin or boracic acid say enough to make a two or three per cent solution. If you have infectious abortion it is considered a good plan to sponge off the external genitals of the other cows with some antiseptic, but I have seldom found it necessary. Have usually relied on carbolic acid given internally. All cows that have aborted as well as those suffering from leucorrhoea should be subject to it before being bred again. The bull when affected should have the same treatment in addition to local antiseptic treatment. All cows that have not aborted in an infected herd may be subject to it with good results. It is usually given in the feed, such as a bran mash or well stirred up in the drinking water. The average dose to begin with is about fifteen drops two or three times a day, gradually increasing it. As high as three drachms may be given in a single day. This treatment should be continued from three to six weeks.

If, after breeding, a cow shows signs of coming in heat the second time, she should be isolated, kept perfectly quiet and the heat prevented if possible. To accomplish give of the fluid extract viburnum prunifolium two ounces and tincture of opium, two ounces. If this does away with symptoms it need not be repeated but should they continue to arrive, repeat.

From what has been said, it hardly seems necessary to state that a thorough disinfection of stables and sheds is necessary in order to eliminate infectious abortion from the herd, so will pass this point believing the plans of disinfection pretty thoroughly understood; besides I have already consumed more of your time than I should, but wish again before closing to urge on you the importance of looking carefully after these cases of accidental abortion and retained after-birth, which I believe to figure so prominently in producing infectious abortion and sterility, and which have so much to do in reaching a thorough and satisfactory solution to the problem under discussion.

Much more could be said on this subject but I must stop, knowing that only a portion of the things of interest have been brought out, but I sincerely hope that what has been untouched may be revealed in the discussion and that all may go home better prepared to solve this perplexing problem for himself.

DISCUSSION.

F. P. Maguire: I think the Doctor struck the keynote of this abortion question when he said it was accidental. According to my observation, I

think it is wholly accidental. There has been a good deal of abortion in Reno County. Three men called my attention to it and I visited their herds, and found they had their cattle, horses, mules, and different classes of stock in the same pasture, all watered from the same tank. One case in one herd was especially brought to my attention. The cattle went to the water to drink, and here came the mules, kicking and plunging, and away went the cattle—and there were two calves lost from that—one case that I watched for that particular purpose. Fodder was hauled out and the mules would kick and slash the cows, and the horses would, too. When a cow lost a calf once, at that same stage she is undoubtedly weak the next time and will lose again possibly without an accident.

Dr. O. O. Wolf: I think we should not lose sight of this altogether and consider all cases of abortion as purely accidental. I think we should recognize also that we have infectious abortion, which can be produced from the discharge of some cows being inoculated, up into the vagina in some manner.

J. F. True: As Mr. Tudor is not here to speak for himself, I will state that I understood from him that his treatment was to let them alone and they will quit aborting. I understand he bought a herd which had worn out the owner by their abortions. He got them cheap, very cheap, and let them alone and they became safe breeders. I suspect from the tone of his letter which the secretary had, that this is about his theory—that he don't think there is much in treatment. I suspect, however, there is a great deal in treatment and preventatives.

Geo. W. Maffet: I believe in sympathetic abortion, and I don't believe in contagious abortion. I believe that contagious abortion is just simply the giving out on the ranch of bone material. All breeders of any kind find that bone material is the hardest to keep supplied of anything you give to an animal. The time comes when that supply is gone, from improper feeding or high feeding, especially milk feeding. When that supply does go in the female, the foetus is bound to come. When that bone material is made good, then I believe it stops. This mysterious stoppage, I think, is just that very thing. It is just simply the lack of bone material that causes the abortions, and when the bone material is gone abortion must follow.

H. W. Cheney: I have had sympathetic abortion. I was keeping a dairy and had the cows stanchioned with their heads together, about sixteen feet apart. There came a very severe cold night. I had a cow about due to calf in a box-stall. I went out about midnight and I found the box-stall had become very cold, too cold for a cow to calf, and I removed her and put her into the sixteen-foot driveway between the herd that was stanchioned there. During the night sometime she brought forth a very nice calf, and during the next night I think I had about eleven premature ones—which I would call sympathetic abortion.

Mr. Maguire: I think the smell of the blood and the fresh passing of that calf caused it.

Dr. Wolf: If the afterbirth is removed soon after and the cow is given some local treatment, the treatment will prevent a recurrence of the trouble. The treatment need not be continued longer than a week or two. If it should go on, however, and the cow should contract a case of leucorrhoea, it should be continued for from three to six weeks.

Elliaz Zimmerman: The Doctor says if you see the cow is going to abort, give her black haw. How are you going to do that if the foetus is dead?

Dr. Wolf: In regard to telling whether it is dead or alive, we often experience some difficulty, but we usually find a discharge with a dead foetus. The character of the discharge will tell whether the foetus is dead or alive.

Mr. Zimmerman: Can you get the cows to breed again? The mouth of the womb seems to be closed by the expelling of the foetus, there being a scab formed in there.

Dr. Wolf: I would state in answer to that question that often in these cases there is probably something present besides simply the condition of the uterus. I think these cases are probably the effect of this germ I mentioned. When you remove this acid condition, this germ is present, and will cause an abortion even if subsequent conception did take place. In regard to opening the mouth of the womb, that can often be helped by using something like belladonna or some other extract for the purpose.

J. W. Robison: The closing of the

Horse Owners! Use GOMBAULT'S Caustic Balsam



A Safe, Speedy, and Positive Cure
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERIZING OR FIRING. Impossible to produce scar or blemish. Every bottle sold 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 descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Cleveland, O.

mouth of the womb is a very common cause of barrenness. In the last few years the impregnator has removed very many of these cases. The closing of the mouth of the womb does not necessarily prevent conception with an impregnator. After service this can be inserted and passed clear up inside of the mouth of the womb by the regular impregnator, and then it will take as well as if the mouth of the womb was in a normal condition. The cause of abortion that Mr. Maguire mentioned is not a cause that occurs with any improved stock-breeder. That occurs with the common, old stock-breeder, who gives that kind of care and naturally gets that result. It is not the improved stock-breeder. To these parties that said that all abortion is accidental, you might just as well say that small-pox is accidental and stick to it! We do know that abortion can be vaccinated just as surely as small-pox and other diseases.

G. W. Glick: I want to give testimony in favor of Dr. Wolf's theory of using the extract of black haw. I used it in my herd for over twenty years, and I think it is the most effective remedy that can be used. Of course, a man wants to keep a record of the breeding of his cattle. I use it in connection with another case, which has been a practice of mine. When I found a cow didn't breed or didn't get with calf, as soon as I thought she ought to—I keep a record of the breeding—a week or ten days before I expected her to come around again I commence giving her about two spoonfuls of the extract of black haw night and morning, and after she was bred continued that for a week or ten days. I found almost in every case that I could induce her to breed when I resorted to that treatment. Sometimes it would fail the first time, but the second time I never had a failure when treating my cows in that way. Whether there is anything in that or not, I don't know, but that was the result of practicing that myself in my herd. So far as the theory of there not being contagious abortion is concerned, and the reason for it, I would call my friend's attention to this fact, that contagious abortion prevails very extensively in the dairies down East, but they feed large quantities of bran—the very thing that would supply the bone-making material that you think is absent. If you want to supply that material, I don't know of anything that would be more efficacious and supply the bone-making material to the animal and foetus more effectually than feeding bran. I agree with the suggestion about keeping a careful record of abortions and all the facts connected with it. It ought to be done, and ought to be done carefully, too.

Mr. True: I understood Gov. Glick to say he gave black haw a certain length of time before and a certain length of time after the service of the bull.

Gov. Glick: That is correct.

Mr. True: It is generally given before the time the abortion is expected. I never heard of it being given at the time of service, but that may be good treatment.

Gov. Glick: I don't know whether that is effective or not, but that is my treatment.

Dr. Wolf: I think theoretically that is decidedly correct. We have tried the very same thing in our own herds and it has been quite successful, and we have usually had no difficulty at all when we resorted to black haw.

Mr. Maffet: I believe practical experience counts here, and for that reason I want to say that I have had horses, or rather, mares abort. I aborted one myself by driving her into cold water. We never have any trouble getting a colt after the accidental abortion of a mare by using a little hemp-seed. Pick up a little hemp-seed and put it into the feed once in a while—once in ten days, when you accidentally happen to think of it. We have carried a number of fast mares

to successful colt in that way that have lost previous colt accidentally.

Mr. Johnson: I have a friend that has had a great deal of trouble with abortion for two years, and he has fed alfalfa extensively. He made up his mind it was due largely to feed. I would like to have Dr. Wolf's idea about that as to whether or not it is a fact that abortion may be largely due to feed.

Dr. Wolf: I think the feed does have a great deal to do with it.

Mr. Johnson: Do you think the alfalfa has a tendency to cause it?

Dr. Wolf: Personally I don't know enough about alfalfa to say.

Jno. Warner: I would say in regard to alfalfa that I have been feeding alfalfa more or less for ten or twelve years, and I have never had a case of abortion. I have a herd of from fifty to seventy head.

A member: Was this abortion question as prominent in the cattle business twenty or thirty years ago as it is now? It seems to me to be growing, but is it? Is that trouble a growing one, or is it as great as it was thirty years ago?

M. S. Babcock: I don't think the people in the East are troubled with abortion nearly as badly as they were twenty or thirty years ago. I have been in Kansas twenty years and have been troubled with abortion ever since I have been here. I don't think it has been accidental abortion or contagious abortion. There has not been a year since I have been in Kansas that I haven't had several abortions among my herd. I don't know anything about what the trouble is.

A. E. Jones: Does abortion occur as frequently in heifers with first calves as it does in later years?

Dr. Wolf: Generally speaking, I believe not, but where it becomes infectious it does. In those cases they are just as subject to it as the older cows.

Mr. Babcock: My experience has been just the reverse, that the heifers usually abort with their first calves. They will then breed again without any trouble, and most generally carry the calf all right the second time. I have had them to abort twice and then carry the third calf all right and never abort afterwards.

Dr. Wolf: It might possibly be that you allow your older cows and heifers to run together. If you do, that is probably the reason, because the heifers are more apt to have it than the older cows.

J. W. Robison: In reference to alfalfa I want to say something. I am such a friend to alfalfa that I don't want any imputation thrown on it. I have some sixty or seventy mares running on alfalfa and have had for ten or fifteen years, and we have just an occasional case of abortion—not more than one per cent in all that time. The cows of course we do not let run on the green alfalfa, not on account of abortion, but on account of bloat. We have no trouble whatever in feeding alfalfa hay. I think it is just as safe as any other food.

Fitting Cattle for the Show-Ring.

J. G. TOMSON, DOVER, KANS.

In fitting cattle for the show-ring our success will largely depend on three things, the comfort of our cattle, a variety of good feeds, and the faithfulness of the feeder. If these are used with a liberal amount of common sense, the cattle will be a credit to the exhibition. Omit any of these and you will look mighty solemn on show-day.

Beginning with the little calf, our first move is to make him comfortable, to see that he has plenty of fresh air and sunshine in pleasant weather, and that he does not get too much exposure during storms. Calves are apt to lie down in cold, wet places and catch colds that may bother them for a long time.

When calves are small, we usually have several of them together, and at night they are shut in large box-stalls that have been well bedded and are well ventilated. At this age is a good time to make friends with them by using the curry-comb freely.

By the time they are 6 months old we prefer to keep them in separate stalls so that we can feed each one what we think he ought to have. If room is scarce they can be tied, but we prefer to allow each one a box-stall so he can do as he likes.

During hot weather we allow them to run in a small pasture at night, and stable them during the day. If the weather is bad we sometimes allow them to go back to the barn after a short exercise.

After they have gone out at night the stalls should be thoroughly cleaned, and the barn given a good air-

ing. In the morning the stalls should be well bedded before the cattle are put in. Nothing adds to their comfort more than a good soft bed.

To protect them from the flies we keep them covered with light covers, and darken the barn as much as we can without interfering with the ventilation.

Another important thing is to see that their feet are kept in good condition. They need trimming from time to time, to keep them growing straight. There are a great many other little things that can be done to add to their comfort, if the feeder will watch closely to see what they like.

In feeding, one of the most important things is regularity. If you feed and water the same time each day, you will find that the cattle will be watching for you.

We watch our little calves to see that they eat regularly and are careful to milk out their dams if any has been left. They are allowed to run with their dams at night and are allowed with them at noon until about 2 months old; after that they suck only twice a day. By this time they have been taught to suck nurse-cows. This can best be done by standing the nurse-cow next to the calf's dam, and while he is hungry change him from one cow to the other. As soon as they can take more milk, we give it to them, being careful not to overdo it.

As early as we can we get them to eat a little shelled corn and oats, and later, add bran and oil-meal mixed with cut hay, always feeding three times a day. As they grow the feed must be increased and plenty of rough feed must be given at all times.

By the time they are old enough to feed separately they will be eating considerable feed. Now we change the shelled corn for coarse ground chop, and feed about equal parts of chop, oats, and bran with a handful of oil-meal, and mixed with cut hay. Of course different animals will require different feeds. If one seems to grow too fast and does not put on flesh as we would like to have him, we usually give him more chop and oil-meal.

During the warm weather we water before feeding and give fresh hay afterwards. The feed-boxes should be cleaned frequently during the warm weather.

We use alfalfa mostly for roughness, but often give them other kinds for a change.

They are very fond of green corn and we feed it quite freely, often chopping up the ears and putting in their feed.

As the show season draws near we increase their feed until by the time they go out to show they will be eating about all they want, but never feed more than they will clean up readily. This will keep them gaining, and will add greatly to their mellowness and fresh appearance.

On returning from the shows we begin to lighten the corn part of their feed and supply it with cooler feeds, such as roots, green grass, etc., and gradually wean the calves. In this way we reduce the temperature without losing the flesh, and they are in better condition for the shows the next year. For yearlings we feed about the same as calves, watching closely to see if we are getting the results we want. There is little danger of over-feeding them under 2 years of age. In feeding older stock, the fattening part of the feed can be reduced, but they must be kept in thrifty condition, and be able to make good gains through the shows. Before going out they must be thoroughly halter-broken, so that they can be placed in good positions in the show-ring. We usually begin this when they are quite young.

At first we teach them to stand still, then by working carefully we can get them to stand squarely on their feet and carry their heads aright. We generally use nose-straps in showing, but they must be used carefully or they will make their noses sore.

About three weeks before the shows we begin to groom them daily, being careful not to use tools that will irritate the skin. We have used heavy blankets some, but do not much like them, as the cattle are too liable to take cold when without them.

The horns should be scraped down smooth and then polished with polishing powder. We trim their tails some to add to their neat appearance.

In shipping, and while at the shows, they require the closest kind of attention. Do everything you can to make them comfortable, and stay close to them so they will feel at home. Give them a walk in the fresh air each morning and a bite of green grass, if their is any, and make their beds twice a day.

Do not understand me to say that if

these things are done you will win everything in sight. Ours didn't. No rule can be made that will work with all cattle, and I have merely tried to tell you how we handle ours.

DISCUSSION.

Secretary Heath: Those of you who visited the great shows and the great State fairs can better appreciate this paper. It was the experience of nearly all showmen and exhibitors that I talked with that the Tomson cattle were marvels, and this gentleman who read this paper was their fitter. They were marvels of their kind. Tomson was 'a new Richmond in the field,' and therefore I thought it well to get his ideas, thinking that a man who had done the work would be of great interest to Kansas breeders who expect to get their share of the million dollars to be offered by the St. Louis World's Fair—and \$100,000 at our next State fair, I hope.

G. W. Glick: I want to commend Mr. Tomson's paper. A look at his cattle, would satisfy you that he did exactly what he said he did. I want to pay him this compliment. There are only two other young men I know of in the West who are his equals (there are none his superior) in fitting cattle for a fair, but if I was going to pick a winner out of the three, I would stand up for Kansas! [Applause.]

A member: I know a good many Jersey breeders oil up the cattle for exhibition. Did you ever rub your cattle down with any kind of grease or oil?

Mr. Tomson: I have never used any oil or anything of that kind on the cattle at all. I rub them mostly with woolen cloths. We use the curry-comb very thoroughly, and rub them with woolen cloths mostly, being careful not to irritate the skin. Where you expect to keep cleaning them for two months at a time, too much grooming is apt to deaden their coats more than to brighten them.

Col. Robison: I can add to the testimony of the condition of Mr. Tomson's cattle, having seen them in a number of herds last year, and saw that they were in the pink of condition—not overdone. Mr. Tomson keeps the kind of cattle he expects to develop fit to go into a good fair. But in the very best herds, no matter how fine the pedigree may be, there will be some that it don't do to take to the big fairs. They don't all develop alike. Mr. Tomson has stated in that paper nearly all the prominent points that are necessary. With the feed he uses he doesn't need the oil on the outside of the coat of the animal. That feed puts the oil on the inside, and it goes to the outside in the manner nature intended it should. That same line of feeding will carry through any other line of stock. We are using almost identically the feeds he mentions. There is no feed that puts the gloss and the fine touch on the hair that oats do. Adding to that some bran and a little shorts and plenty of good, clean alfalfa hay, and if that won't make a calf or cow, with the proper breeding, take some ribbons in the show-ring, there is something wrong!

A member: I want to know whether Mr. Tomson's treatment will disqualify his cattle for subsequent breeding?

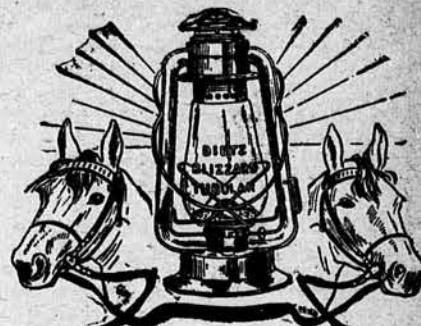
Mr. Tomson: It has been our custom for the last three years to sell our older females in the show herd at the Kansas City show, when we finish showing. We have guaranteed them as breeders and never have had any complaint at all.

Honors Won by Kansas Breeders in the Show Season of 1902.

I. D. GRAHAM, TOPEKA.

Men are but boys grown tall. Boys of all sizes like to see things. The tall boy as well as the short likes to read. The big boys outside of the boundaries of Kansas want to be shown as well. There is nothing that Kansas is better able to do, or that she more enjoys doing than showing them. We can show them for instance that the records for 1902 of the Kansas City Stock Yards credited Kansas with 1,270,000 head of cattle out of a total of 2,280,000 received. This is 55 per cent of the entire receipts of cattle for the year at these yards. We can also show them that Kansas supplied 1,190,000 head of hogs to this market during the past year, this being 51 per cent of the total receipts for Kansas City. We do not think much of our sheep industry in this State, because, generally speaking, we do not know very much about it. In the year 1901, Kansas supplied the Kansas City market with 264,700 sheep. In the year 1902 she supplied that market with 260,000 sheep.

In horses and mules, Kansas furnished 23,000 head for 1902, as com-



When Hitching Up

and in a hundred duties about the barn and house the farmer wants a dependable light.

DIETZ GOLD BLAST Blizzard Lantern

fits him exactly as to strength, clearness and steadiness of light and convenience and safety. Whether filling, trimming, lighting or extinguishing, you never remove the globe. It is raised, lowered and looked to burner by convenient side lever. Dietz lanterns and lamps, all kinds and sizes, are known the world over for their many superior qualities. Free illustrated catalogue shows how and why they have been for 60 years superior to all others.

Write for it.
R. E. DIETZ COMPANY,
95 Laight Street, New York.
(Established 1840)

THE OLD RELIABLE REMEDY

For Spavin, Ringbone, Splints, Curbs, etc., and all forms of Lameness in



THE ONLY CURE FOR BONE SPAVIN.

Perryville, Ark., Mar. 25, 1901.

Dr. B. J. Kendall Co., Gentlemen:—Please send me a copy of your "Treatise on the Horse and His Diseases." I have one of your books that a friend of mine gave me but quite a number of leaves are gone from the same. I can truthfully say that your Spavin Cure is the only thing that I have ever used on bone spavin that did the least particle of good. I saved a very fine mare by using same, and you may rest assured that I do not hesitate to recommend it to every one. W. G. McKean.

Price \$1; six for \$5. As a liniment for family use it has no equal. Ask your druggist for KENDALL'S SPAVIN CURE, also a TREATISE ON THE HORSE. If you want the book, or address

DR. B. J. KENDALL CO., MUSBURG FALLS, VI.

The KEYSTONE
Dehorning Knife
makes the dehorning of cattle simple and easy. Operation over in an instant; but a moment's pain. Clean, smooth, clear cut, with no bruising or crushing. Highly valued by stockmen. Fully warranted.
M. T. PHILLIPS, POMEROY, PA.

BALMOLINE The Corn-Husker's Friend. : : :
And Nature's Perfect Healing Salve
MAN OR BEAST.
Druggists, or by mail. Trial box, 4c; 2 oz., 25c; 6 oz., 50c. Balmoline Mfg. Co., Sta. B Abilene, Kas.

LUMP JAW.
A positive and thorough cure easily accomplished. Latest scientific treatment, inexpensive and harmless. NO CURE, NO PAY. Our method fully explained on receipt of postal.
Chas. E. Bartlett, Columbus, Kans.

Immune Hogs

The pigs are born Cholera-proof.

Innoculation before birth the most scientific and best hit ever made in preventing Hog Cholera. Write for free book and agency.

ROBERT RIDGWAY, Box 300, AMBOY, IND.

CAR-SUL CATTLE DIP

CURES Mange and Itch; KILLS Lice, Ticks and Screw-Worms; HEALS Cuts, Wounds, Galls and all Sores.

GUARANTEED to do the work without injury to eyes or other parts of animal.

At dealers or by express, prepaid, \$1.50 per gallon. 25 cent cans—dealers only. Special price in quantities. Write to-day for book and free trial Car-Sul. Address

MOORE CHEMICAL CO.,
1501 Genesee St., Kansas City, Mo.

pared with 17,500 head furnished by far-famed Missouri.

KANSAS HAS BEEN LARGELY INSTRUMENTAL

in building up Kansas City into the second largest live-stock market in the world. With this tremendous outpouring of money-making crops placed in the compact form which enables the farmer to drive his crop to market, instead of hauling it, what wonder is it then that our banks are overflowing with money, our farmers are prosperous and happy, and that we are looking out for better things. With the magnificent endowment which nature has given us in the way of pastures and feed-crops, and with the absolutely safe investments and sure returns which are calling for recruits in pure-bred industries, what wonder that Kansas should take up the business of breeding pure-bred stock as she has never done before, and should win laurels in competition with other States that have long since won their reputations along this line. Again we refer to the records of the Kansas City stock-yards, and find that during the year 1902, there were held eighteen sales of pure-bred cattle, which included 1,564 head of all the beef breeds and which sold at an average of \$212 per head. Of these eighteen sales, eleven were held prior to the American Royal, and seven during that show or since. Owing to the previous conditions, which existed in 1901, much of this sale-stuff came into the ring in thin flesh, but in spite of this the average price was fairly satisfactory. Of the total of 1,564 head, 60 per cent, or 940 head, were Herefords, which brought a total of \$224,950, or 67 per cent of the gross receipts for all breeds. Of these 940 head of Herefords, 369 were bulls, which brought \$72,640, an average of \$196.85; 571 were cows, which sold for \$152,310, or an average of \$266.74. The general average on the total number of Herefords sold was \$239.30.

Next in number to the Herefords come the Shorthorns. They numbered in the sale-ring 433 head, and brought \$75,765, or an average of \$174.97. Seventy-seven of these were bulls, which averaged \$160, and 356 were females, which averaged \$178.09. It is only just to say that while these figures may look small in comparison with some sensational sales that have been made in the breed, it must be remembered that there were but three of these sales of Shorthorns in which the cattle were well-fed for the sale-ring.

Next in order comes the Angus, with but two sales for the year. These numbered 144 head, and brought \$23,615, an average of \$163.99. The 60 bulls sold averaged \$120.16, and the 84 females averaged \$195.29. The small number of sales in the Angus breed, together with the results obtained, may be due in part to the fact that this breed has not been represented in the previous American Royal shows, and its merits have not been advertised so well as those of other breeds.

The Galloways follow with one sale at Kansas City during the year, and they fell under the same disadvantages with which the Angus breeders had to contend, namely, a lack of vigor in exploiting the merits of the breed. However, if we compare the sale of Galloways for 1901 with that of 1902, we find that in the former year the average was \$85, while in the latter, 47 head sold at the American Royal combination for an average of \$154.25, a gain of nearly 100 per cent in the sale-ring. The aggregate returns for the sale of these 1,564 head of pure-bred cattle of the four beef-breeds in 1902 was \$331,580. The aggregate for the two years just ended for this market was 3,572 head, which sold for \$785,000, or an average of \$219 per head.

At these sales Kansas purchased 115 head of pure-bred Hereford cows and 112 head of bulls, total 227 head; 84 Shorthorn cows, 25 bulls, total 109 head; 16 Angus cows and 23 bulls, total 39 head; 4 Galloway cows and 22 bulls, total 26 head. A grand total of all breeds of 219 cows, 182 bulls, or 401 animals.

This we feel sure is one small way of showing people who are unfortunate enough to live outside of the State lines of Kansas.

In the show ring, Kansas has done much. Doubtless all have watched with interest the winnings of our various exhibitors and have felt keenly the fact that Kansas is forging rapidly to the front as a breeding State. All that can be written, printed or said about Kansas will constitute but the fine print in her history, and the sale and show-rings help to serve as the illustrations which render every book with pictures in it more attractive to

both the short boys and those grown tall.

The remarkable showing in Short-horns made by the Elder Lawn Farm with their young herd has been a matter of pride and satisfaction to every lover of this breed. With a herd of seven animals, all yearlings or under, Messrs. T. K. Tomson & Sons made a circuit of the fairs with the following results:

HONORS WON AT FAIRS OUTSIDE OF STATE.

Missouri State Fair.—Second on yearling bull, bull calf, breeders' young herd, and third on get of sire.

Iowa State Fair.—Third on yearling bull, fourth on bull calf, second on breeders' young herd, second on get of sire, and third on produce of cow.

Nebraska State Fair.—Second on yearling bull, first on bull calf, first and third on yearling heifer, second and third on heifer calves, first on young herd, first on get of sire, first on produce of cow, and junior champion cow.

Topeka Fair.—First on all the classes named above, except produce of cow, where second was won, on produce of Rose Sterne 2d. Here also they won the champion bull and champion cow, any age.

American Royal.—First on senior yearling bull, third on senior bull calf, second and eighth on senior yearling heifer, sixth on junior yearling heifer, second and fifth on senior heifer calf, fourth on breeders' young herd, first on get of sire, third on produce of cow.

H. W. McAfee, of Prospect Farm, Topeka, only showed at the Topeka Fair, winning first on Violet Prince in aged bull class, and second on Lord Butterfly, yearling bull.

D. K. Kellerman's magnificent Vine-wood herd, Mound City, made a small draft and won fifth in the American Royal on the 2-year-old bull Lavender Gloucester, fourth on Orange Lan, senior yearling, third on senior heifer calf, and fifth on breeders' young herd, and when it is remembered that the competition in the American Royal is so keen, and the showing of such quality that it is equalled by perhaps but one other in the world, it is sufficient glory for any herd to gain a place at this show. Indeed, the writer regards it as an honor to a herd to be able to show here, although they do not get inside the money.

Hanna & Co., Palo Duro Stock Farm, Howard, had a small draft from their fine herd at the American Royal, and won sixth on 2-year-old bull, Prince of Collynie, seventh and eighth on 2-year-old heifers. Mr. Hanna failed to preserve the records of his winnings, but mentions that his 2-year-old bull brought \$535 in the sale, and that he won the highest average in the Short-horn combination.

C. F. Wolf & Son, owners of Glen-dale Herd of Shorthorns, are not great show people, but are strictly business. They won eighth on junior bull calf in the American Royal, on Royal Wanderer.

In Herefords, the only showing made by the great Sunny Slope Farm at Emporia was at the American Royal, where Mr. Stannard carried away second on 2-year-old bull, fifth on senior yearling bull, fourth on 2-year-old heifer, seventh on aged cow, eighth on senior heifer calf, and fifth on aged herd.

And at the International at Chicago, Sunny Slope won second on 2-year-old bull, fifth on 2-year-old heifer, fourth and seventh on senior heifer calf.

The American Royal had in store some surprises for the Hereford people. Among these may be mentioned the winnings of the 3-year-old bull, Protocol 2d, owned by Robt. H. Hazlett, of Hazford Place, Eldorado. This bull had never been shown before, and his owner had never made an exhibition before the American Royal. Protocol stood in the ring at this show, the youngest and heaviest Hereford bull in his class, and was given eighth place, although the opinion was expressed by good judges that his quality warranted at least two places higher. Mr. Hazlett has since bought Dale Duplicate 2d, which won sixth place in junior yearling bulls at the American Royal.

At the International show, Mr. F. Rockefeller, of Soldier Creek Herd,

Belvidere, was given second place on Columbus 17th, in class of fifteen 3-year-old bulls, and has the satisfaction of knowing from the statements made in many letters and telegrams, as well as in the public print, that his bull was the best one in the show. This is the only place where Mr. Rockefeller exhibited in the larger shows of the year, though he took all the Hereford premiums and grand sweepstakes over all breeds at the Wichita Fair, and second in sweepstakes class of all breeds with his Shorthorn bull, Wm. Hanna.

At the American Royal, Geo. H. Adams, Linwood, won sixth in the 3-year-old bull class, sixth in the 2-year class, and sixth in the yearling bull class. Also first in the fat stock 2-year-old steer or spayed heifer class, and sweepstakes in the same.

W. S. Powell, Moline, won eighth on 3-year-old cow in the American Royal.

J. A. Larson, Plainview Herd, Everest, won at Topeka first on aged bull, second on bull calf, first on aged cow, first on 2-year-old cow, first on yearling heifer, first on heifer calf, champion bull any age, champion cow any age, and first on Hereford herd.

In the Aberdeen-Angus, Parker, Par-rish & Miller, of the Sunflower Herd, Hudson, showed at Topeka, Kansas City, and Chicago. At Topeka they won first on yearling bull, first on bull under 1 year, second on 3-year-old cow, first and second on 2-year-old cow, first and second on yearling heifer, first on heifer under 1 year, first on get of sire, first on produce of cow. At the American Royal, they were awarded third on aged bull, fourth on yearling bull, fourth on bull under one year, sixth on 3-year-old cow, fourth on 2-year-old cow, third on yearling cow, third on heifer under 1 year, and fourth on get of sire. At Chicago International, they won fourth on yearling bull, third on yearling heifer, and third on produce of cow, besides many compliments on the quality of their short-grass cattle, and on the fact that they took home with them a thousand-dollar cow with bull calf by Prince Ito at foot.

Anderson & Findlay, Allendale, showed their Angus herd at Topeka, and won first and second in aged bull class, second in yearling bull, first in aged cow, second in 2-year-old cow, second in heifer under 1 year, first in exhibitor's herd, second in breeder's young herd, sweepstakes bull. At the American Royal they were awarded second and fifth in 3-year-old bull class, fifth in junior yearling bull class, third and fourth in junior bull calf.

In the Galloway breed, we have not a great many to report. Geo. M. Kellam, Richland, showed at Topeka, and won first and sweepstakes on the remarkably fine 2-year-old heifer, Isabel of Clover Hill, and first on bull under 1 year, which constitutes his entire showing for the year.

S. M. Croft & Son, Bluff City, have a good herd of Galloways, but were able to show at only some of the minor shows. They made a grand showing at Hutchinson, and were able to carry away about everything in sight.

Owing to the lack of information, we have not attempted to give awards made in cattle outside the beef breeds, but must mention the exhibit made by Wilkie Blair, with his Red Polls at Topeka, where he won second on 2-year-old bull, second on yearling bull, second on aged cow, second on 2-year-old cow, and on heifer calf, in competition with one of the best-known herds from Illinois. His 2-year-old heifer won out in competition with a second prize-winner at the Chicago International in 1901, and first at the same show in 1902, in addition to many State prizes. His heifer calf, also, won out over the calf which won the first prize in class, and junior female sweepstakes at the Nebraska State Fair of this year. We think Mr. Blair has a few things to be proud of.

In Holsteins, at the Topeka show, Mr. C. F. Stone, Peabody, won first on aged bull, second on aged cow, second on exhibitor's herd, and he won the sweepstakes cow.

KANSAS IS A GREAT HOG STATE. For the double reason that we have the men that know how to raise them, and the feed on which to make them great. At the Missouri State Fair, there was a very creditable exhibit of Poland-Chinas, whose home address is Kansas.

John D. Marshall, of Elm Lawn Farm, Walton, won three firsts, three seconds, one champion. At Topeka he won three firsts, four seconds; at the American Royal, two seconds, one

GOOD SEEDS CHEAP.
Best in the World.
None so low in price. Largest illustrated seed catalogue ever printed, FREE. Engraving of every variety. Price only 1 cent per pkg. and up. A lot of extra packages, rare sorts, presented FREE with every order. Send name and address by card or letter.
R. H. SHUMWAY, Rockford, Illinois.

STARK best by Test—75 YEARS. We **PAY CASH** WANT MORE SALESMEN **Weekly** Stark Nursery, Louisiana, Mo.; Huntsville, Ala.

HEALTHY TREES—free from disease. Honest in quality. Grafted Apples 4c; Budded Peaches, 4c; Budded Cherries, 15c each; good varieties Concord Grapes, \$2. per 100; 1000 Ash \$1. B. and H. Locust; Rsa. Mulberry, &c. Low price. We Pay freight. Catalog free. Galbraith Nurseries, Box 32 Fairbury, Neb.

Fruit Trees 17 Peach, \$1.00. 50 Concord, \$1.00. 1000 Mulberry, \$1.00. Immense stock, fine quality, low prices. Freight prepaid on \$10.00 orders. General catalogue free. **SAGE COUNTY NURSERIES, Beatrice, Neb., Box 625**

Trees That Grow The best and hardiest varieties. See our prices. Grafted Apple, 4c; Budded Peach, 4c; Budded Cherry, 15c; Concord Grapes, \$2. Black Locust, \$1. Seedlings \$1 per 1000.
German Nurseries We Pay the Freight. Illustrated Catalog, German or English free. **German Nurseries, Carl Sonderberger, Prop., Box 9, Beatrice, Neb.**

Veneered Tree Protectors
Cheapest and Best Ever Made.
Millions in use everywhere. Send for testimonials and full description—1c each; 1,000 for \$8. Will last for years.
Hart Pioneer Nurseries, Fort Scott, Kansas

Seed! Trees!!
INSTRUCTION!!!
Genuine Speciosa (Hardy Western) CATALPA.
Beware of other varieties of tree and seed. Send at once for circular. ...Extensive experience...
E. H. ROUDEBUSH, TOPEKA, KANSAS

50 BULBS 25 Cents.
Will grow in the house or out of doors. Hyacinths, Tulips, Crocus, Fuchsias, Oxalis, Jonquils, Daffodils, Dewey Lily, Tuberoses, Gladioli, Chinese Lily, Begonia, Gloxinia, Lilies of the Valley.
—all postpaid, 25c in stamps or coin. A premium with these Bulbs we will send a giant collection of flower seeds—over 300 varieties.
Address Killiside Nursery, Somerville, Mass.

The Farmer's Wife
usually selects the garden seeds for the family garden. The garden is her pride, while the farmer has his larger sphere of operation. Do not use "store seeds" this year but send for one of our large illustrated catalogues of pure, true to name, fresh seeds of sure vitality. We sell direct from the grower to the user at bargain prices, two cents per packet and upwards. Beautiful catalog mailed free if you mention this paper.
IOWA SEED COMPANY, DES MOINES, IOWA.
"Seedsmen to the American People."

SEED CORN
The vigorous, hardy, productive kind that shows big results at harvest time and makes glad the hearts of the wise men who plant one of our famous kinds, "Pride of Nishna," "Ratekin's Iowa 'Silver Mine'" and "Imperial" are names known wherever corn is grown. Write and we will tell you about each of these varieties, how and where grown and why so wonderfully successful; also about our price list of Seed Oats and Garden Seed. Write now for catalogue. Sent free for mentioning this paper. Address
The Ratekin Seed Co., Shenandoah, Iowa.

MONEY IN GOOD CABBAGE
My elegant new book for seed growers is a store house of rare seed information. Tells about my famous varieties of money making cabbage.
WRITE TO-DAY FREE Mention this paper, and I will send you a package of **Buckbee's Gold Coin Cabbage**, the best growing variety on earth together with a copy of my great Seed Book.
H. W. BUCKBEE
Dept. L-19, Rockford Seed Farms, Rockford, Ill.

Relieve **BROWN'S BRONCHIAL TROCHES** Cure **Coughs, Sore Throat, Hoarseness.**
Nothing excels this simple remedy.

fourth, one fifth, two sixths, one seventh, and one ninth, and he modestly adds that he won sixty prizes at county fairs.

Winn & Mastin, Mastin, showed their herd of Poland-Chinas at the Iowa State Fair, Illinois State Fair, and the American Royal. They won at the Iowa State Fair, seven firsts, five seconds, three thirds, four sweepstakes; at the Illinois State Fair, seven firsts, eight seconds, three thirds, one sweepstakes; at the American Royal, ten firsts, twelve seconds, thirteen thirds, seven fourths, four fifths, three sixths, one seventh, three champions, four sweepstakes.

Dietrich & Spaulding, Richmond, won at the Topeka Fair, four firsts, one second, one sweepstakes; at the Nebraska State Fair, three thirds, and at the American Royal, one fourth, one fifth, one sixth.

W. P. Goode, Lenexa, won fifth on aged sow at the American Royal, and T. P. Hasting, Edgerton, won fifth on boar 6 months and under 12.

The Duroc-Jersey people at Topeka invaded the black-hog country, and Peter Blocher, Richland, won first on 2-year-old boar over the prize-winner that got first at Des Moines in a class of twenty-nine.

At the American Royal, H. H. Hague & Son, Walton, got second on aged sow.

KANSANS RAISE FINE HORSES.

J. W. & J. C. Robison, Whitewater Falls Stock Farm, Towanda, competed during the season with their Percheron horses for sixty-six prizes and won sixty-five of them. They won every first prize they competed for except one, and their herd-head, Casino, has eleven blue ribbons hanging in his stall. At the Missouri State Fair they won first on stallion 4-year, old, first on 2-year-old, first and second on yearling, and first on stallion under 1 year, first and second on 3-year-old mare, first and second on 2-year-old mare, first on yearling, first on mare under 1 year, and sweepstakes stallion any age or breed.

Snyder Bros., Winfield, won second on Shires, in the 2-year-old stallion class, at Topeka, and first and second on aged Shire mare. In Percherons they won second in 2-year-old stallions and 3-year-old stallions. They also won first on saddle stallion, first on road stallion, first on single driver, and sweepstakes on road stallion. Their black 3-year-old trotting stallions won first or second in all the standard and road classes, and as a road pair, wherever shown.

H. W. McAfee, of Prospect Farm, Topeka, showed Clydes at Topeka, and took second on stallion 4 years old and over, first on 2-year-old, and first on yearling. In mares he got second on 4-year-old, first and second on 2-year-old, first and second on yearlings, and first and second on sucking colts.

F. H. Shreppel, Ellinwood, took a bunch of his Percherons to Colorado State Fair, and won first, second, and third on 4-year-old stallions, second on 2-year-old stallions, and on yearlings. In the Coaches, he won second on 4-year-old stallion. He showed eight head from his Cheyenne Valley Stock Farm, and they attracted a great deal of attention, and much favorable comment from the Ranch and Range.

Mr. S. S. Spangler, Mount Vernon Stock Farm, Milan, Mo., is included in this list because he was formerly a Kansan, and because he won the grand championship class in Percherons for mare of any age with his 6-year-old Regina, in a class of thirty-nine entries, at the International. She is a Kansas-bred mare, and we think entitled to a mention in this paper.

OUR NEED—A STATE FAIR.

Other winnings were made by Kansas exhibitors in sheep and other breeds, but we have not the data at hand from which to report them. When we pause for a moment to think what these results obtained by Kansas breeders really mean, is it not a matter of pride and satisfaction to all? When we think that each one of these animals which has been shown in these large fairs has been a matter of education, not only to the onlooker but to the breeder as well, in showing him what has been accomplished in the struggle for perfection and how it has been obtained. When we think that each one of these animals that has gone out from its home-farm to meet other contestants in the showing and has brought home evidences of victory in the prize ribbons, represents more thought, more study, more diligence and more capital in his long line of ancestry than the average man puts into his whole business life, does it not seem that these people are important enough to be entitled to a

place where they can make these great educational exhibits within their own State boundaries.

I feel that enough has been presented here to show the breeders that any State which has not a State fair is not in its proper light before the world, and that anything that may be done by its inhabitants to give it a reputation before the world without such an exhibit will put it much in the light that the small boy regards the fine print in his book, which has no pictures in it. Of all States in the Union, Kansas should be progressive in everything that will add to her agricultural aggrandizement. The breeders will do their work properly if they learn how, and every effort should be made by the members of this, the most powerful association in the State, as well as by every other citizen, to see to it that the State Agricultural College is well taken care of, so that the sciences which go with the art of breeding may be thoroughly taught to our young men, for upon them depends the future of the State. Supplementing this training, and as an important adjunct to it, there should be established a great State fair, which will serve not only to illustrate the resources of the State to our own citizens and visitors from abroad, but which will be a ready means of comparison in both methods and results for the breeder's use in his striving for perfection. Kansas already ranks high as a corn- and wheat-producing State, and as the fourth State in the Union in number of apple-trees, but her principal industry in the future must be embraced within the breeder's art, and in order to attain results rapidly, which are at the same time creditable, each citizen should feel that money invested in the proper conduct of the State Agricultural College and the establishment and proper maintenance of a State fair is of vital importance and that it does not represent an expenditure of people's money, but rather an investment which will return a thousandfold to the good of the State. A State fair, in order to continue in usefulness, should be under the control of a board that is free from partisan politics and that is determined to have a clean State fair for the exhibition of the resources of the State, and not for the showing of Midway entertainments and side-shows, which should never have any part therein. I feel safe in asserting that should this association take hold of this matter with the determination to succeed that there will be no chance of failure. I also desire to assert that while the Kansas breeders have done well and the State should feel proud of the results obtained that it is well nigh impossible to tell how much better they might do if they had a State fair of their own in which to prepare for exhibits in other State and National events. A home battleground is needed seriously for both men and animals to train them for the battles in the show-ring which will in a very few years place Kansas in the forefront of breeding States.

Committee on President's Address.

O. P. Updegraff: I would suggest that we give a little attention to the fact that in his address the president has made some recommendations to this association which should not be overlooked. For that purpose and with that object in view, I would move you that a committee of three be appointed to report here to-morrow morning in relation to the recommendations of the president.

The motion was seconded, put and carried, and President Harrington appointed the following as members of said committee: O. P. Updegraff, chairman; J. W. Robison; M. S. Babcock.

Committee on American Royal Show.

On motion of Secretary Heath, the Kansas delegates to the National Live Stock Association were appointed as a committee to confer with similar committees from other States regarding the American Royal show, such committees to meet in Kansas City January 14.

MONDAY EVENING SESSION.

President Harrington: I take pleasure in introducing to you, members of the association, Mr. T. A. Borman, secretary of the Kansas State Dairy Association.

Mr. Borman: I must beg your pardon to night for not having a paper to comply with the subject as stated in the printed program, which calls upon me for a talk on "Individual Successes

(Continued on page 90.)

Seeds

Alfalfa Seed A Specialty.
Alfalfa—the king of drouth-resisting Forage Plants. Pure and fresh 1902 seed, plump and vigorous. In car or bushel lots. Also all other Field Seeds. Write us for prices.
McBETH & KINISON,
Garden City, Kansas.

STRAWBERRY PLANTS THAT PAY

TO PLANT. Sure to produce BIG, RED BERRIES. You cannot fail if you plant our plants. We have been growing berries in Kansas 21 years; began when 12 years of age, and know just what you need. Our Catalog tells you all you want to know. Have Raspberry, Blackberry plants, etc. Write for Free Catalog
Address **F. W. Dixon, Holt, Kansas.**

SEEDS

FIELD-GARDEN-FLOWER. Everything for Farmer or Gardener. Choice quality, high germination. Planet Jr. Garden Tools, Seed Sowers, Bale Ties, Onion Sets. **LARGE STOCKS** Clover, Timothy, Alfalfa, Millet, Cane, Kafir, Seed Corn, Potatoes, Blue Grass, Orchard Grass. Good Treatment to Everybody. Write for our Catalog—Free.

TRUMBULL & COMPANY, 1426 St. Louis Avenue, KANSAS CITY, MISSOURI.

J. G. PEPPARD

1101 to 1117 West 8th St.
(Near Santa Fe St.)
KANSAS CITY, MO.

MILLET

CLOVERS

TIMOTHY

GRASS SEEDS.

SEEDS

KUMLER & BUSCH
Dealers in all kinds of GARDEN and FIELD SEEDS
Send in your samples; ask for ours. 600-602-604 Mass. Street, Lawrence, Kansas.

KENTUCKY BLUE GRASS SEED.

For a Beautiful as well as a Most Profitable Pasture sow BLUE GRASS. The genuine Kentucky seed is what you want, and from September until June is the proper time to sow. For pure seed of our own raising, and full particulars, write **MT. AIRY SEED FARM, Paris, Kentucky**

Seed Corn

We have best varieties of Field Corn, Iowa Silver Mine (white), Early Gem (yellow), and White Rose. We also have best of seed wheat, White Russian oats, and cane seed. Write for price list and other information. Prompt attention to all orders.

ROSS & FERRELL, - - FARRAGUT, IOWA.



Make the Garden Pay

by planting good, vigorous seed. We have had years of experience and we know how. These things show in the seed, they show in the crops and they show in the profits. The new catalogue tells all about our immense line of garden and field seeds. Full of interest to the man who wants to buy in the best market. It is free if you mention this paper. Write to-day. Always address **The Ratekin Seed House, Shenandoah, Ia.**



Southwestern Iowa BLUE GRASS SEED LEADS THE WORLD

Grown on lands never touched with the plow. Can contain no Weed Seed. Absolutely Pure and Highest Germinating Power. Why wait years to get a thick Pasture or Meadow? Sow our Blue Grass and Mixtures of Clover, Alsike, Alfalfa, Bromus Grass, Timothy, Meadow, Tall and Sheep Fescues, Orchard Rye and Oat Grass, Water and Floating Grass, all Natural Grasses for all kinds and conditions of soil. We are strong on all Field, Garden and Flower Seeds. We sell to you at Wholesale Dealers' Prices. Good Seeds for Little Money. Our Catalogue tells all about it. It's free. Only Ask through a Postal Card.

A. A. BERRY SEED CO., BOX 50, CLARINDA, IOWA.



MADE FROM PHOTO OF OUR CATTLE KING CORN.

Vansant's 5-Prize Varieties of SEED CORN.

Write for circular and free samples.

All Upland Grown on our own farms, 1902 crop. Every kernel guaranteed to grow where any corn will grow. These varieties include corn suitable for different climates and localities. Corn especially bred for cattle feeding purposes, yields from 60 to 100 bus. to an acre; everybody wants this variety. Also a fine yellow early 100-day corn, splendid yielder; also a fine white variety, grows on white cob, etc. Vansant's Seed Corn never disappoints a purchaser. Our Corn is selected, tipped, shelled, sacked, and F. O. B. cars at \$1.25 per bushel.

W. W. Vansant & Sons, Farragut, Iowa.

Buy Your Seeds Early

ALL VARIETIES ARE SOARER THIS YEAR.

Don't depend on your neighbor any longer but get Fresh and Reliable seeds of the **KANSAS SEED HOUSE.**

We sell everything in the line of SEEDS. Seeds for the Garden, for the Field, the Farm, and the Flower Garden. Headquarters for ALFALFA—very scarce this year, too—Cane, Millet, Kafir-corn, Seed Potatoes, Onion Sets, and Gardening Tools. The Wonderful MACARONI WHEAT, the RUSSIAN SPELTZ, and the Hardest known forage plant HUNGARIAN BROME GRASS. Send at once for their Elegant New Catalogue telling all about everything in SEEDS.

Kansas Seed House. F. Barteldes & Co., Lawrence, Kans

PROTECT YOURSELF

With Seed Corn

True to type. Free from frost. Fine and large. The kind of corn that will mean a big crop for you and money in the bank. Get our quotations on your seed in any quantity you desire.

Our Garden Seed

line is as fair, as fine and clean as was ever grown. Our catalog tells the story. One in the house means good luck. It is free.

GRISWOLD SEED COMPANY, Lincoln, Nebraska.

PLANT GRISWOLD'S SEEDS

A BIG COBURN REPORT.

(Continued from page 81.)

ing, and fattening of farm animals; the growing of alfalfa; and the culture and improvement of corn; also the State's agricultural statistics for the biennial period and for the preceding twenty years, together with tables, statements, summaries, and diagrams showing the population, products, progress, assessed valuation, railroad mileage, and general development of the State.

The great demand for space precludes the possibility of an extended notice of this invaluable book here. The editor will find frequent occasions for drawing on its store of information.

Every reader of the KANSAS FARMER ought to have a copy of this great work. This will not be possible for the State has printed hardly enough copies to supply each of our subscribers without sending any to the benighted people who do not take the KANSAS FARMER. Postage on the volume is 33 cents. The secretary has at present no funds available for such postage. The Legislature is in session, however, and will doubtless provide for the distribution of the book. It will be wise to file your application immediately.

THE NATIONAL LIVE STOCK ASSOCIATION.

The sixth annual convention of the National Live Stock Association was held at Kansas City, January 13-16, and was the occasion of stirring times in that town. The meetings were held in the Century Theater and were well attended, very interesting and at times even exciting. Much important business was transacted. About 700 delegates were in attendance representing all the States and Territories in the Union. Among the important items of business was the adoption of a resolution by a rising vote endorsing President Roosevelt's suggestion that Congress appoint a commission of experts to settle the range problem. The resolution declares that the present land laws have become obsolete and directs that a memorial be prepared which shall call the attention of Congress to the fact that the present laws encourage the destruction of forage upon public lands and retard improvement and settlement.

Another resolution was introduced opposing the bill now before Congress to lease public land, and stated that local option should govern this, as a general law would serve to benefit one section and work disaster to another.

A resolution was adopted which protested against the proposed merger of the packing companies. This was in line with the recommendation of the president, John M. Springer, in his annual address and of the sentiment expressed by Judge Wm. M. Springer, Washington, D. C., in his address on the subject, "The Proposed Merging of the Packing Plants of This Country, the Effects and Remedy." This resolution winds up by cautioning the alleged combine that the entire livestock interests of America, backed by public sentiment, will fight it to the last ditch. This resolution was adopted unanimously and with great enthusiasm. Another resolution requested the Secretary of Agriculture to secure an investigation as to the possibilities of a market for our meats in Mongolia, Manchuria, and Siberia. Also to examine the present status and growth of the live-stock industry in those countries. Other resolutions were adopted as follows:

Approving the Penrose law for the improvement of general-purpose horses by breeding along improved lines under the supervision of a war department board.

Congratulation to the Agricultural Department for suppression of the foot and mouth disease.

The endorsement of Senator Harris for Nicaragua canal commissioner.

Endorsing the omnibus statehood bill for New Mexico, Arizona, and Oklahoma.

Endorsing the Agricultural Department for its efforts to eradicate poisonous plants on the ranges.

Endorsing the pure-food bill and requesting the passage of a census bill.

Asking the Agricultural Department to repeal the forest exclusion order and protesting against the Government setting aside vast tracts of lands for game preserves.

Transferring the forestry division to the Agricultural Department.

Giving the Secretary of Agriculture power to designate ports of entry and to order the disinfection of imported skins and hides and reaffirming the association's attitude of protest against the forty-hour law.

The association voted not to accept an invitation to go on an excursion to the St. Joseph Stock Yards, although a large number of members went.

Entertainments provided for the guests consisted in the St. Joseph excursion, an afternoon reception and tea for the ladies, a grand ball in Convention Hall, various theater parties, and a so-called smoker at the Convention Hall, and wound up with a round-trip excursion to New Orleans to those who cared to attend.

The next place of meeting will be Portland, Oregon.

The officers elected for the ensuing year are as follows: President, John W. Springer; first vice-president, Jno. M. Holt; second vice-president, F. J. Hagenbarth; treasurer, Geo. L. Goulding; secretary, Charles F. Martin; assistant secretary, F. P. Johnson.

THE STATE BOARD OF AGRICULTURE.

The thirty-second annual meeting of the Kansas State Board of Agriculture, held last week, was one of the greatest of the series of great Kansas gatherings. The program brought out many strong papers from strong men and women. These will appear in the KANSAS FARMER of February 5.

The election of officers resulted as follows: President J. H. Churchill, Dodge City; vice-president, J. W. Robinson, Eldorado; treasurer, Edwin Snyder, Oskaloosa; secretary, F. D. Coburn, Kansas City, Kans. (Mr. Coburn was elected last year and holds over to 1904.)

Following are the members of the board: W. J. Bailey, Governor (ex officio), Topeka; J. R. Burrow, Secretary of State (ex officio), Topeka; W. R. Dowling, Norcatur, Decatur County; Thos. M. Potter, Peabody, Marion County; A. W. Smith, Grove, McPherson County; I. L. Diesem, Garden City, Finney County; T. A. Hubbard, Rome, Sumner County; Chas. E. Sutton, Russell, Russell County; Geo. W. Hanna, Clay Center, Clay County; Geo. W. Glick, Atchison, Atchison County; Edwin Taylor, Edwardsville, Wyandotte County; J. T. Treadway, LaHarpe, Allen County.

The following resolutions were adopted:

Whereas, There is a general demand from the agricultural and live-stock interests of this State that a State fair be held on an agricultural, live-stock, industrial, and educational basis; therefore

Resolved, by the Kansas State Board of Agriculture in its thirty-second annual session, That, while it has heretofore been and is now the policy of this board not to court the duties and burdens incident to the promoting and holding of State fairs, we nevertheless recognize the great benefits resultant from such exhibitions, and we do therefore urge and recommend to the Legislature now sitting that a wise law be enacted creating a State fair commensurate with the magnificent productive resources of our State, and that adequate provision be made for its promotion and maintenance.

Whereas, The raising of sugar-beets and their manufacture into sugar has become a most important industry; and,

Whereas, The experiments already made indicate that Kansas is to become one of the great sugar-producing States; therefore be it

Resolved, by the Kansas Board of Agriculture, That we urge and recommend that the Legislature provide for a continuance of the present sugar-beet bounty established two years ago,

to the end that the manufacture of sugar as one of our great agricultural industries may be encouraged and developed.

THE KANSAS CITY SALES REPORTS.

Owing to the pressure upon our columns necessary to give a complete report of the proceedings of the Improved Stock-Breeders' Association of Kansas, which we deem of vital importance to the entire Southwest, we are obliged to hold over the reports of the great sales made at Kansas City during the National Live-Stock Association until next week.

These sales were so important that we prefer to do this and give a full report rather than to insert a condensed report at this time.

They were from the Galloway herd of I. B. & A. M. Thompson, Nashua, Mo.; the Hereford herds of C. W. Armour, Kansas City, and Jas. Funkhouser, Plattsburg, Mo.; and the Shorthorn herds of H. C. & Joseph Duncan, Osborn, Mo., and Geo. Bothwell, Nettleton, Mo. Next week these sales will be reported in detail.

KANSAS FARMER'S NEW WALL ATLAS.

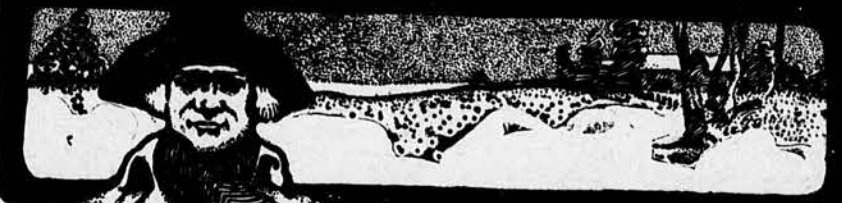
The KANSAS FARMER has arranged with the leading publisher of maps and atlases to prepare especially for us a new Wall Atlas, showing colored reference maps of Kansas, Oklahoma, Indian Territory, the United States, and the world, with the census of 1900. The size of the New Wall Atlas is 22 by 28 inches and it is decorated on the outer cover with a handsome design composed of the flags of all nations.

Tables showing products of the United States and the world, with their values, the growth of our country for the last three decades, and a complete map of the greater United States are given. This is an excellent educational work and should be in ev-

EARLY WINTER NUMBERS OF THE SATURDAY EVENING POST

An Illustrated Weekly Magazine

Established 1725 by Benjamin Franklin
and regularly published for 175 years



To Begin January 17

GOLDEN FLEECE

The American
Adventures of a
Fortune-Hunting Lord

In this sparkling serial story of American society Mr. David Graham Phillips makes us personally acquainted with a certain type of Englishman.

His campaign, begun on the liner, is continued in New York, Boston, Washington, Philadelphia and Chicago. In each of these cities we are given a glimpse of the local "Smart Set" and its own peculiar fads and foibles. The end—an unexpected one—comes in Chicago. Another strong feature now running:

Papers by De Blowitz

The distinguished Paris correspondent of the London Times. For thirty years he has been of the inner circle, and his brilliant achievements have won for him a unique position in European politics.

February 1st the subscription price will be increased FROM \$1.00 TO \$2.00 per year. Send a Dollar now and secure a Two-Dollar Magazine for half price. The Curtis Publishing Company Philadelphia, Pa.

ery home. The retail price of this New Wall Atlas is \$1.

Every one of our old subscribers who will send us \$1 for two new trial subscriptions for one year will receive as a present a copy of this splendid New Wall Atlas postpaid, free.

Any one not now a subscriber who will send us 50 cents at once will receive the KANSAS FARMER for five months and will be given a copy of our new Wall Atlas free and postpaid.

How's This!

We offer One Hundred Dollars Reward for any case of Catarrh that can not be cured by Hall's Catarrh Cure.

F. J. CHENEY & CO., Props., Toledo, O. We, the undersigned, have known F. J. Cheney for the last fifteen years, and believe him perfectly honorable in all business transactions and financially able to carry out any obligations made by their firm.

West & Truax, Wholesale Druggists, Toledo, O. Walding, Kinnan & Marvin, Wholesale Druggists, Toledo, O.

Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75 cents per bottle. Sold by all druggists. Testimonials free.

Hall's Family Pills are the best.

Business Opportunities for All.

Locations in Iowa, Illinois, Minnesota, and Missouri on the Chicago Great Western Railway; the very best agricultural section of the United States where farmers are prosperous and business men successful. We have a demand for competent men with the necessary capital for all branches of business. Some special opportunities for creamerymen and millers. Good locations for general merchandise, hardware, harness, hotels, banks, and stock-buyers. Correspondence solicited. Write for maps and Maple leaflets. W. J. Reed, Industrial Agent, 604 Endicott Building, St. Paul, Minn.

Beautiful Indian Territory.

The mecca for the homeseeker and investor; wonderful results—greater possibilities. The M. K. & T. Ry. is the pioneer Indian Territory line and six of the largest towns are located directly on its lines. Write for pamphlets. Address

JAMES BARKER, Gen'l Pass. Agent, M. K. & T. Ry., 101 Wainwright Bldg., St. Louis.

**The Keystone
of Good Health**
is pure food.

Lion Coffee

is all coffee—no glazing of eggs or glue to conceal defects and cheapen its quality. Fresh and uniform, rich in flavor, because always in sealed packages—never in bulk.

THE STANDARD POLAND-CHINA BREEDERS' ANNUAL MEETING.

The seventeenth annual meeting of the Standard Poland-China Record Association will be held in Maryville, Mo., on Wednesday, February 4, 1903, commencing promptly at 10 o'clock a. m. Geo. F. Woodworth, secretary, makes this significant announcement: "This will be an important meeting of the association, and all stockholders should be in attendance or represented by proxy."

In view of the proposed Poland-China merger, and the well-known opposition of the "Maryville contingent," this meeting is likely to be the most lively and spirited in the history of the association, and every stockholder should therefore make it a point to be on hand.

There is not a question of doubt but that the majority of Poland-China breeders in America are in favor of one single national record for the breed. It is the order of the day and in keeping with the eternal fitness of things that it should obtain, and no single record association can prevent the consummation of it. Those who stand in the way of progress and at the same time the interests of the breed will eventually "peter out" with dry rot. The opponents of consolidation are trying to impress the absurd fact that the proposed merger is in the interest of the Kansas City show. There is absolutely nothing in this claim.

Kansas Improved Stock-Breeders' Association Notes.

Jas Tomson's paper on "Fitting Cattle for the Show Ring" was right to the point and should be preserved and studied by every breeder for future use in his own operations both in the show and sale rings. Fitting cattle for either show or sale pays.

H. W. Avery's new Percheron stallion, purchased at the McMillan sale, is the son of both the mare and stallion that won first in their classes at the Chicago International Exposition in 1903. He is a good one and we shall have something to say about him later on.

Of one thing Topeka people may well be proud. Her hotels are among the best in the West, and they do not "hold up" visitors on the occasion of any large convention as is done in some places. Topeka has good hotels and they are kept good by men who know how to run hotels.

One of the prettiest pieces of descriptive writing that we have recently heard of was the tribute to the "little red cow" contained in W. F. Jansen's paper on "Dairying in Kansas from a Stock-Breeders' Standpoint." The paper appears on page 92, and is full of solid meat throughout.

In newspaper parlance, the dairy session on Monday night was "hot stuff." It is doubtful if any meeting ever held in the West was so full of good, practical, interesting papers as was this the first distinctively dairy session ever held by the Improved Stock-Breeders' Association. If the State Dairy Association can do better we want to be shown.

President W. W. Marple, of the Missouri State Dairy Association, closed the dairy session with an interesting paper on the "Cream of the Business." Owing to the length of the paper, which was really a lecture, and the crowded condition of our columns this week, we were obliged to omit the many amusing anecdotes with which he illustrated the various points made.

Parker Parish, the big Angus breeder of Hudson, spent all the time he could spare from his legislative duties at the breeders' meeting. We are glad to know that the people of Kansas are sending men to the legislature who are representative of her most prominent industries instead of the professional politicians who are still all too common.

All of the members of the breeders' association were given tickets to the ground floor of the auditorium for the inaugural ceremonies of Stockman Bailey, as Governor. Governor Bailey has long been a member of the Improved Stock-Breeders' Association and is a good representative not only of its membership but of the State's greatest industry as well.

That knowledge pays is shown by the fact that ex-President J. W. Robison of the breeders' association is now vice-president of the State Board of Agriculture and of the State Horticultural Society. These and many other honors come to him because he knows how to manage a 17,000-acre farm on which he has one of the large orchards of the State, one of the biggest alfalfa patches, a nice bunch of Shorthorns, several hundred Poland-Chinas, some of the best Percherons in the West, and has earned the title of "Corn King."

The annual report and breeders' directory of the Kansas Improved Stock Breeders' Association will be issued early, and it is

Cascarets
CANDY CATHARTIC
BEST FOR THE BOWELS
Genuine stamped C. C. C. Never sold in bulk.
Beware of the dealer who tries to sell
"something just as good."

A STARTLING FACT

HALF THE PEOPLE IN THE WORLD HAVE STOMACH TROUBLE.

A Simple Course of Treatment Told in Every-day Language, Free from Scientific Terms.

Half the people in the world have stomach trouble in a greater or less degree. Usually it comes from irregular or hasty eating—sometimes from other causes. But there is just one way to treat it and that can be found in a booklet which the Dr. Williams' Medicine Co., Schenectady, N. Y., will send free to any address upon request. Mrs. Edith Benedict, of Groton, Mass., is one of the many who took this course of treatment and was cured. She says:

"I had suffered from constipation ever since about the time my little girl was born, about twelve years ago, and it finally became chronic. It isn't necessary for me to tell you the trouble it gave me, but I suffered all the time. Doctors gave me no permanent relief and I kept getting worse."

"At last, something more than a year ago, when I was all run down and my blood in a horrible condition, my mother told me to try Dr. Williams' Pink Pills for Pale People, which she said had accomplished wonderful results with her. I purchased some and took them according to directions and in a short time saw a decided improvement. I continued their use and they cured me."

If you are suffering from any disorder of the stomach write for their free booklet, entitled "What to Eat and How to Eat." It contains information that should be in the hands of every person who is suffering from a disordered digestion. It treats of the proper selection and preparation of food, the relative value and digestibility of various food products; it contains a chapter on the use of alcohol and gives a course of treatment by which constipation may be overcome without the use of cathartics.

Dr. Williams' Pink Pills for Pale People, the medicine which cured Mrs. Benedict and thousands of others, are an unfailing specific for all diseases arising from impoverished blood or weakened, unstrung nerves—two fruitful causes of nearly all the ailments to which mankind is heir. They may be had of any druggist or will be sent postpaid on receipt of price, fifty cents a box; six boxes two dollars and fifty cents, by the Dr. Williams' Medicine Company, Schenectady, N. Y.

very important that members who have not yet sent in their dues and reports of their herds should do so at once so that they will be included in the directory. It is worth much to be a member of this, the greatest organization of its kind in the United States. Any breeder may become a member by sending his name and \$1 to the secretary, H. A. Heath, Topeka. This is important, as the directors contemplate a recommendation to materially increase the initiation fee. Those who become members during January, 1903, will have their names and breeds represented appear in the current directory which will be largely distributed at the St. Louis world's fair in addition to being scattered broadcast among breeders.

Former students of the State Agricultural College were present and made their influence felt at the improved stock-breeders' meeting. Among them we noticed Chas. E. Sutton, Russell, who was elected president of the association, Professors D. H. Otis, of the chair of animal husbandry; Ed. Webster, of the chair of dairy husbandry, and J. G. Haney, of the Fort Hayes experiment station of the Agricultural College, H. W. Avery, the big Percheron breeder of Wakefield, Fred Zimmerman, who won a name as an expert dairyman and then went to Missouri, Prof. Curtis, who lectures in the Agricultural College short course, L. H. Nels-wender, one of the best farmers in the Silver Lake bottoms, Theo. F. Morse and wife, nee Helder, of the Indicator, and "Johnson of Clay," who hustles for the Western Breeders' Journal.

The National Wool-Growers' Association.

On Saturday last, after the adjournment of the National Live Stock Association, the National Wool Growers' Association met in the club room of the Coates House and had a very profitable session. The room was uncomfortably filled and much important business was transacted. Mr. E. D. King was the Kansas representative on the two prominent committees.

Resolutions endorsing the proposed history of the live-stock industry; denouncing delay in railroad transportation of live stock; urging the transfer of forestry reserves to the agricultural department; approving the poisonous plant investigation; denouncing the 6 cents per head sheep yardage charges and asking a reduction to 3 cents with a maximum of \$8 per car; and the resolution providing for federal inspection for the eradication of scab, were all discussed and carried after discussion. Officers for the ensuing year were elected as follows: President, Senator F. E. Warren, Wyoming; vice-

president, Frank P. Bennett, Massachusetts; secretary and treasurer to be named by the president. A. J. Knollin, Kansas City, is the present incumbent.

The next meeting of the association will take place at the same time and place as that fixed for the National Live Stock Association, namely, Portland, Ore., except that the wool growers will have Monday and Tuesday of the week instead of Saturday as at present. The membership in the National Wool Growers' Association includes the most active and most numerous workers in the National Live Stock Association, and hence are entitled to more consideration in the week's program.

Kansas Swine-Breeders' Association.

During the intermission of the sessions of the Kansas Improved Stock-Breeders' Association on January 13, the swine breeders called a meeting to revive the Kansas Swine-Breeders' Association, for the purpose of having a business organization to look after special interests of the swine breeders and still be auxiliary to the old association. It was organized on the same general plan as the old swine breeders' association. President, H. M. Kirkpatrick, of Wolcott; secretary-treasurer, H. W. Cheney, North Topeka. Vice-presidents: For Poland-Chinas, Jas. Mains, Oskaloosa; Berkshires, Chas. E. Sutton, Russell; Duroc-Jersey, D. Trott, Abilene; Chester-Whites, D. L. Button, North Topeka. Executive Committee: C. M. Irwin, Wichita; Geo. W. Berry, Emporia; and J. R. Killough, Ottawa. It was agreed to hold a special meeting during the swine-judging at State Agricultural College. The membership fee for the Swine Breeders' Association is 25 cents.

The Iowa Round Incubator.

When the Iowa Round Incubator was first introduced there was considerable discussion concerning the radical departure it made in incubator construction. Incubators had been made square so long that people were inclined to think that was the proper way to build them. Then the proprietors invented the catch line, "No cold corners," and at once thinking people began to understand the advantage of an incubator in which the temperature could be kept exactly at the same degree in all parts of the egg-chamber. As the Iowa Round Incubators began to be distributed about the country the good reports from those using them made them friends, and each year the sale of them has increased, until now they are an important factor in the poultry industry of the country. While the principle was always right and the Iowa has been a success from the very first, a constant effort has been made to improve the construction of them. The heating apparatus, the regulator, the ventilation were all perfected, but it was felt that the liability of wood to shrink, swell, warp, crack and split left something to be desired in the way of material from which to construct the case or body of the machine. Metal would not do, for it expands and contracts under varying temperatures, and corrodes under all circumstances. Finally "trunk-board," a fiber board used for making trunks that can not be smashed, was hit upon. This trunk board is capable of being bent so as to make the case of the Iowa Round Incubator one solid piece except where the ends are joined together. Trunk-board does not shrink, swell, warp or crack, and it can not be split even with an ax. It is water and air proof and yet light and strong. No material ever invented is so perfectly adapted to the use to which it is put as is trunk-board for the Iowa Round Incubator. They have just published a little book telling all about their incubators and brooders, which contains much valuable and interesting information, besides a large number of letters from those who have used the incubator made by this firm. This book, together with other printed matter, will be gladly sent to any of our readers who will ask them for it and mention this paper. All requests for this book should be addressed to Iowa Incubator Co., Des Moines, Ia.

Trunk Board Doesn't Split.

an important factor in the poultry industry of the country. While the principle was always right and the Iowa has been a success from the very first, a constant effort has been made to improve the construction of them. The heating apparatus, the regulator, the ventilation were all perfected, but it was felt that the liability of wood to shrink, swell, warp, crack and split left something to be desired in the way of material from which to construct the case or body of the machine. Metal would not do, for it expands and contracts under varying temperatures, and corrodes under all circumstances. Finally "trunk-board," a fiber board used for making trunks that can not be smashed, was hit upon. This trunk board is capable of being bent so as to make the case of the Iowa Round Incubator one solid piece except where the ends are joined together. Trunk-board does not shrink, swell, warp or crack, and it can not be split even with an ax. It is water and air proof and yet light and strong. No material ever invented is so perfectly adapted to the use to which it is put as is trunk-board for the Iowa Round Incubator. They have just published a little book telling all about their incubators and brooders, which contains much valuable and interesting information, besides a large number of letters from those who have used the incubator made by this firm. This book, together with other printed matter, will be gladly sent to any of our readers who will ask them for it and mention this paper. All requests for this book should be addressed to Iowa Incubator Co., Des Moines, Ia.

Wood Splits Easily.

J. B. Armstrong & Sons' Seed-Corn.

The great Iowa seed-corn growers, J. B. Armstrong & Sons, at Shenandoah, need but little introduction at this time to the old-time readers of Kansas Farmer. However this paper has many new readers who will be interested with the old ones in learning of the latest successes of the Armstrong varieties of field corn. The successful growing of field corn is conceded to be the most vital proposition to be met by the farmers of the corn-belt region. That J. B. Armstrong & Sons have been a big factor in the development of the corn-growing enterprise there is no room for doubt. Such popular varieties as the Early Yellow Rose and Snowflake White were originated by the Armstrongs years ago, and they are now known and highly appreciated in all climates where corn flourishes. But this reliable old firm never sleeps. Improvement and advancement are the order of the day with them. There is no phase of the corn-growing question that is permitted to escape their attention. Early maturity, prolificacy and vitality are the qualities that popularize the Armstrong corn wherever it is known. The white variety known as Salamander is to be put forward again as the great drought resister and excellent grower under all conditions. Our readers should note the special prominence given this wonderful variety of corn. Kansas Farmer would be glad to know that this fine variety was given a thorough test in all parts of the State, and a report of its conduct furnished us at cribbing time. But we should say that Early Yellow Rose and Snowflake White are the sorts to tie to as the main proposition. Last

HEALTH INSURANCE

You can insure yourself against disease and save big doctor's bills by keeping in the house a supply of **Watkins' Standard Remedies**. Buy of our agent, the bonded representative of the largest medical laboratory of the kind in the world. Capital stock \$500,000. He guarantees all our Remedies. Watkins' Home Doctor and Cook Book (100 illustrated pages) gives safe home treatment for all diseases of man or beast. It's free. Write to-day for it. **The J. R. Watkins Medical Co.** 28 Liberty St. Winona, Minn. Always look for this Trade Mark.

LADIES

Why not beautify your garden by planting native California flower seeds? This land of sunshine is the natural seed warehouse of America. Many of our most beautiful plants grow luxuriantly in cooler climates. We put up packages of ten very choicest varieties at 50c. Secure two cash orders and we will mail you three packages for the dollar—one to pay you for your trouble. Full directions. Some should be sown in boxes, indoors, and transplanted later. **WANTED**—Reliable agent, in each town; liberal pay, cash.

Note—The supply of seeds for our Special Packet, mentioned above, is limited, some of the varieties being rare, and all who desire to avail themselves of this remarkable offer, should write for them immediately. Address: **Seed Merchants, CAL. FLOWER SEED CO.** Dept. K, 3148 Kingsley St., Los Angeles, Cal.

210 Kinds for 16c.
It is a fact that Salzer's seeds are found in more gardens and on more farms than any other in America. There is a reason for this. We own and operate over 5000 acres for the production of our choice seeds. In order to induce you to try them we make the following unprecedented offer: **For 16 Cents Postpaid**
25 sorts wonderful onions,
25 sorts elegant cabbage,
15 sorts magnificent carrots,
25 peerless lettuce varieties,
25 rare luscious radish,
20 splendid beet sorts,
75 gloriously beautiful flower seeds,
In all 210 kinds positively furnishing bushels of charming flowers and lots and lots of choice vegetables, together with our great catalogue telling all about Macaroni Wheat, Billion Dollar Grass, Teosinte, Bromus, Speltz, etc., all for only 16c. in stamps and this notice.
Onion seed at but 60c. a pound.
JOHN A. SALZER SEED CO.,
La Crosse, Wis.

HAVE YOU GOT A DOLLAR?

It will return many fold if you invest it in one of our **Three Fruit Opinions**
20 Budded Peach Trees, 25 Grafted Apples or 50 Concord Grapes, either one for the dollar. Only clean, well rooted, vigorous stock in Trees, Shrubs and Vines. English or German catalog and 25c due bill sent free. We pay freight on \$10.00 orders.
FAIRBURY NURSERIES, Box L, FAIRBURY, NEB.

Our handsome Garden Annual and Seed Catalogue. Send your address on a postal to-day, or for 4c. in stamps and the names of 3 neighbors who are actual seed buyers we will send our catalogue and packet of the Giant Red, Madam Perret PANSY if you write before March 15th. Address, **COLE'S SEED STORE, Pella, Iowa.**

FOR OVER SIXTY YEARS
An old and Well-Tried Remedy. Mrs. Winslow's Soothing Syrup has been used for over Sixty Years by Millions of Mothers for their Children while Teething, with Perfect Success. It soothes the Child, softens the Gums, allays all Pain; cures Wind & Colic, and is the best remedy for Diarrhoea. Sold by druggists in every part of the world. Be sure and ask for Mrs. Winslow's Soothing Syrup and take no other kind.
Twenty-Five Cents a Bottle.

year Mr. J. H. Charlton, Rolfe, Iowa, planted 100 bushels of this fine old staple variety from the Armstrong cribs. Mr. Charlton was an old customer, having bought 60 bushels of Early Yellow Rose two years before, and pronounced it excellent seed. He was simply one of hundreds reporting similar experience. The readers of Kansas Farmer are requested to write J. B. Armstrong & Sons for up-to-date circulars and book on corn-growing. Investigate, think, and act. See the advertisement and write mentioning the Kansas Farmer.

There is only one way to advertise and that is to hammer your name, your business, so constantly, so persistently, so thoroughly, into the people's heads, that if they walked in their sleep they would constantly turn their heads to your store.—John Wana-maker.

DISEASES OF MEN ONLY.
The greatest and most successful Institute for Diseases of Men. Consultation free at office or by letter. **BOOK** printed in English, German and Swedish. Explaining Health and Happiness sent sealed in plain envelope for four cents in stamp. All letters answered in plain envelope. Var. cooiled cured in five days. Call or address **Chicago Medical Institute,** 513 Francis St., ST. JOSEPH, MO.

MONDAY EVENING SESSION.

(Continued from page 87.)

in Kansas Dairying." I have been unable to gather together, in the short time allotted me, the necessary statistics or data with which to write intelligently upon the subject given me. But I have a paper which may prove of interest to you in a way, which I have not, however, named.

The Stock-Breeders' Duty to Kansas Farmer.

T. A. BORMAN, SECRETARY STATE DAIRY ASSOCIATION.

Eastern and central Kansas farms are not the productive acres of twenty-five years ago. The virgin soil then rich, now shows the effect of continued cultivation; of shifting winds and dashing rains; and with no attempt to restore or maintain the original fertility, the acres have grown less productive, and changed conditions have made the growing of wheat and corn for market unprofitable. The range of those days, when pasture was abundant and cheap and stock was grazed at trifling cost, has gone forever; to-day prairie pastures are small and on many farms extinct. Farms are growing smaller and the quarter-section farmer is to-day the backbone of Kansas agriculture. The various changes have forced upon the farmer of this day intense agricultural methods; diversified farming, and a new system of economy. Getting nearer the point, I mean to say that the manure produced on the farm must be returned to the soil where it will make one acre produce what formerly grow in two; one horse must do two times the work he once did; one cow must produce the profit of three formerly; and each farmer will grow corn, oats, Kafir-corn, sorghum, millet, alfalfa, and ensilage corn,—a combination of feeds defying hot winds, drouths, chinch-bugs or grasshoppers. The early day pirating and preying on Nature is at an end; a system of actual farming is presented for adoption and to the farmer who wishes success, the pig, cow and calf will each contribute. In this scheme the dairy becomes a significant factor and its importance to the success of the small farmer is quite generally

conceded. The past few years Kansas creamery interests have grown remarkably and are considered as assuming a respectable proportion in the aggregate wealth of the State. Yet, the farmers of this great State are realizing only in a very small way the measure of success which is to be attained from dairying under Kansas conditions, which conditions from every

in the respective herds producing these results range from five to thirty-five and are located in fourteen counties in different parts of the State. These results have been accomplished by careful selection of common cows, by proper feeding and good care. Seven out of every ten farmers in this State can accomplish these average results with the cows of his present breeding



T. A. BORMAN,
Secretary Kansas State Dairy Association.

standpoint outrival any other State of this Union.

The possibilities of the dairy farmer in this moderate climate, on low-priced land, with cheapest and best milk-producing feeds on earth, is demonstrated by a list of twenty-five Kansas farmers whose annual income per cow from the sale of dairy products alone ranges from \$40 to \$80. This list, compiled by Prof. Otis, appeared in the twelfth biennial report of the Kansas Board of Agriculture. The number of cows

if he will. With these results on each quarter-section of land in central and eastern Kansas, what a pleasure would be the drawing of the picture of the thrift and contentment enjoyed by Kansas and lusty sons and daughters.

The assessor's returns places the income from dairy products for the average cow for the year 1900 at \$10.46. This average income will not admit of a great degree of enthusiasm. Comparing this, however, with the results of the twenty-five farmers, the product of

whose herds have been referred to, ample reason and opportunity is afforded for the philanthropist, the man of ideas and energy who may desire to favor his State and fellow men, and build for himself an everlasting monument, by pointing to the cow-owner the way to greater success. Herein enters the mission of the stock-breeder, who in nine of every ten cases is the leader of activity and thought in his community, who has learned the lesson of selection, good breeding, good feeding and good care of his cattle kind.

The progress of things in a dairy way in this State is retarded, I think, by the attitude which the farmer assumes with reference to dairy bred stock. Professional dairy men in dairy papers, in lectures before farmers' meetings and in their visits to neighbors, incessantly urge the necessity of introducing into the farmer's herd what they term dairy blood by the use of Holstein and Jersey bulls. The average farmer, in the slang of the day, refuses to "stand for this." The farmer feels that the black and white, or yellow, cat-hammed and pot-bellied calves would not only bring disgrace upon his herd but would cause the steer buyer on his annual visit through the country to drive by without giving the farmer with dairy bred calves even a formal call. I can not but feel that the persistency with which the use of special purpose dairy bred bulls is urged upon the Kansas farmer in a very great measure retard the progress of the dairy interests in the State and so because of the quality of the offspring as viewed from the cattle feeders' standpoint.

I do not wish it understood as compromising my position or attitude at other times taken with reference to the special purpose dairy cow, for the man whose circumstances either force him, or make it to his advantage to produce butter-fat at the greatest profit, the special purpose dairy animal is his only choice. For the economical production of a maximum of dairy products there is none other than the special purpose cow. Let the professional dairyman breed and feed her, he knows how; the average farmer will fail with the abnormal and delicately developed organism. The special purpose cow occupies an exclusive field

ECONOMY IN BUSINESS

THIS is the keynote to the success of every merchant, manufacturer, grain-grower, stock-feeder, or dairy farmer if he succeeds, and, as the world goes, to succeed is to make money. There are few cow-owners who can afford to feed and shelter a cow twelve months for her calf; to do this is extravagance—not economy.

Dairying Promotes Economy

THE common cow, carefully selected and properly sheltered and fed, will produce \$40 worth of butter-fat per year besides supplying her calf in its infancy with sufficient whole milk to give it a good start in the world and then sufficient skim-milk, with a grain ration—which is always cheaper than a ration of butter-fat, which is worth about \$600 per ton—to make a steer worth as much as one reared by its mother.

✿ The Profits ✿

THE farmers of the West are learning that diversified farming is the kind that pays. Why not make the dairy one of the industries of your farm? Why should not every cow produce a good calf, skim-milk for a few pigs, and a monthly milk check? The milk or cream delivered to our stations will get you a check for butter-fat at highest market prices. If you are not near one of our stations and have a hand separator we can buy your cream shipped direct. We can sell you a hand separator if you have none. We handle the De Laval, which experience has taught us is the best for you and best for us. Write us or see our operators.

THE CONTINENTAL CREAMERY CO.
TOPEKA....KANSAS.

The Dairy S.
When the dairy alphabet is written, the letter S will stand for three things—Simplicity, Satisfaction, Sharples. They all mean the same thing.

Sharples
Tubular Dairy Separators.

The simple separator—free from complicated parts—easy to turn and easy to clean. The satisfactory separator—getting more cream of better quality—yielding a 6% greater profit on your investment than any other separator. Our Business Dairyming Book No. 105 explains how and why, but our separator tells its own story better than words can. You may try it and then decide whether you want it or not.

Sharples Co., Chicago, Ill. P. M. Sharples, West Chester, Pa.



Her breeders are having satisfactory sales; the ranks of professional dairymen are each day increasing, recruiting from young men educated in dairy schools, and as ambitious sons graduate from the dual-purpose class of dairy farmers.

From my observation, the farmer who is a creamery patron, and he numbers probably 40,000 at this time in Kansas, is anxious to breed a cow with greater milking qualities, providing the cow and offspring wears a coat which meets the approval of the buyer and feeder. The average farmer is

the advertising columns of Eastern papers will testify. Let Western breeders take this as significant of the demand which is sure to come and which has already begun, as it has in Eastern States where the dairy interests are more highly developed.

Four breeds are bidding for dual-purpose distinction, viz., Shorthorn, Polled Durhams, Red Poll and Brown Swiss. The literature of the time abounds in argument supporting the Shorthorn as a dual-purpose breed. It is the writer's opinion that the Shorthorn has the best claim to adaptability for both milk and beef. This breed, upon its importation to this country had earned the title of "the milk breed." We are advised that in England the milking Shorthorn is a reality—not an animal for future years to develop. It is a fact that certain strains of these cattle have so long been bred and handled for milk that these strains have taken on what is best described as dairy form or conformation—the inevitable result of long time feeding and breeding for profitable and economical dairy production. Records report the first Shorthorn cows coming to America as having given "six, eight and nine gallons of milk per day on grass alone." Records of several dairy herds in the United States have within the last ten years reported a milking season of 265 days with an average product of 6,500 pounds milk per cow, or about 300 pounds butter per year. Kitty Clay, an animal from the herd of J. K. Innes,

to successfully propagate and develop. Of the beef breed, I consider the Red Poll of next importance, considered from a dual-purpose standpoint. This is a comparatively new breed and as closely resembles the Devons as the Polled Durham resembles the horthorn. As dairy animals, so far as record serves, the Red Polls rank well up with the Shorthorns, but it is generally understood that in the beef end they do not approach the Shorthorns. Speaking in a general way, I would draw this distinction: as the Shorthorn to-day exists beef predominates and milk is a secondary consideration. With Red Polls milk is presented as of greatest importance, and beef a secondary consideration. This explanation holds good so far as the dairy strains of each breed is concerned. It is claimed in literature of the breed that herds in Great Britain average 5,000 to 5,500 pounds of milk per year, and selected herds occasionally give 7,000 pounds of milk per cow per annum. One record of 7,744 pounds per cow is claimed for a herd of twenty-two cows. Another record of 14,189 pounds of milk in twelve months is claimed for a 12-year-old cow. So much for the claims of English history.

In 1883 the Red Polled Cattle Club of America was organized, giving evidence of the age of the breed in the United States. Of the breeders of Red Polls for dairy purposes in this country, V. T. Hills, of Delaware, Ohio, is probably the foremost. A cut of his cow, Popsy 3d, with her record, appears in your souvenir program. This cow has a twelve-months record of 8,331 pounds of milk and 386 1/4 pounds of butter-fat in one year and this cow sold at Mr. Hills' Chicago sale in October for \$1,125. This cow weighs 1,350 pounds, and shows a beefy tendency and does not impress one as an economical producer. Mayflower is a Red Poll cow also owned by Mr. Hills, which in twelve months produced 11,008 pounds of milk, 577 pounds of butter. Mayflower, so far as type is concerned, is almost identical in form and conformation with Kitty Clay, the famous dairy Shorthorn, and each of these cows show much stronger dairy tendency than Popsy 3d. The writer has known and has fed just such cows as Popsy. It is our experience that cows of this type are expensive dairy machines. They require the support of too much beef and fat during the milking season to produce butter-fat at a figure which can be afforded at prevailing prices.

The Red Poll breeders have taken the hint and are pushing their breeds as the ideal general-purpose animal in strong terms and are using the statement of Hon. James Wilson, secretary of the U. S. Department of Agriculture, in which he says, "From data at hand it is shown that the claim made for the Red Polls as the dual-purpose breed is fully established and after an experience of thirteen years I

DE LAVAL CREAM SEPARATORS

For twenty years the World's Standard
Send for free catalogue.
The De Laval Separator Co., 74 Cortlandt St., N. Y.

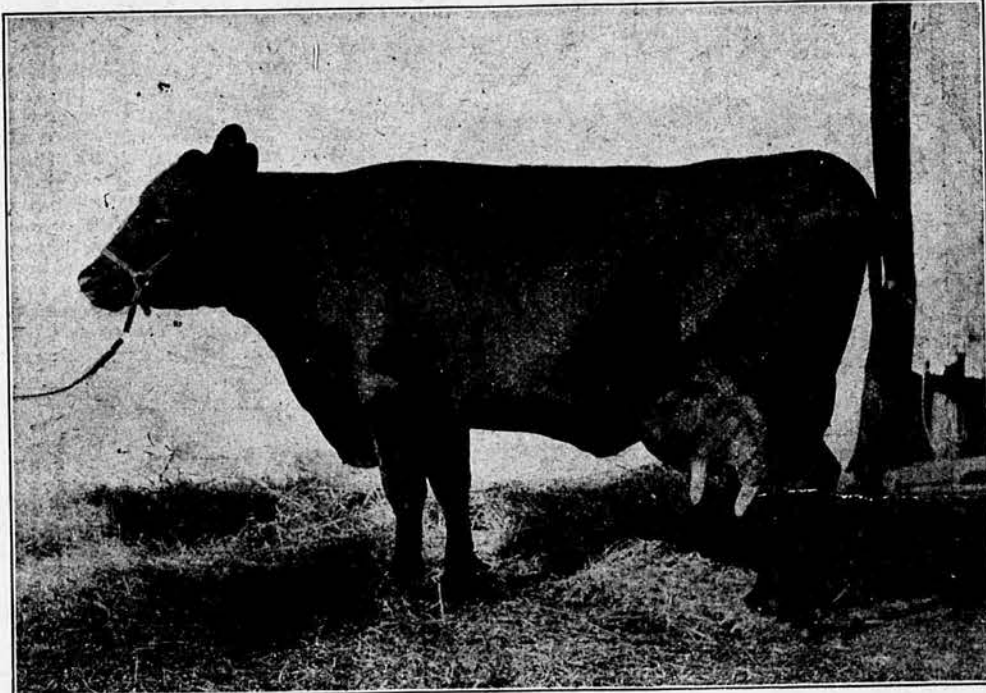
tion upon which can be established a pure breed of dual-purpose animals which will meet the hearty approval of farmers generally. The cropping out of partially concealed dairy breeding in occasional animals gives the owners of such cows ample foundation upon which to begin selection, breeding and feeding and in twenty-five years the expert breeder and feeder can produce animals of superior dairy quality from the females of either breed. I am certain that Kansas offers a field into which the Kansas breeder of Red Polls and Shorthorns has not yet dared to venture. I predict that if a few up-to-date breeders in Kansas have not already chosen to occupy this field, as I see it, that it will be a matter of only a short time, when with true instinct, of a Kansas son, some farmer's boy will evolve a breed from common stock which will occupy the exalted position as the founder of a breed of red dual-purpose animals.

Kansas Feeds and Kansas Cows.

ED. H. WEBSTER, MANHATTAN, KANS.

We Kansans are apt to boast of our achievements. And well we may. What the Kansan has lacked in his native makeup, nature has provided, and be it weal or woe, for good or bad, for rich or poor, for the weather man or for the weather itself, for dry or for wet, in all that term may mean to you, for the beefman or for the dairyman, Kansans can boast and do so with the feeling that he is able to prove his ground and that if any one is skeptical we will finally have to "show him" when it comes to doing things. But I am speaking to dairymen, and am doing it with the conviction that they can lead the world and that the day is not far distant when they will. There is an old saying that a prophet is without honor in his own country, and by analogy we can say sometimes the wealth of a community is spurned by its own. It is iron to them that they will not honor it. Not so long ago we heard that little Denmark, 6,000 miles away, was buying corn and bran and oil-meal in this country, yes, some of it produced on Kansas farms, and shipping it that great distance to feed her dairy-herds, and was, and is to-day, able to place butter on the London market cheaper than we can. Denmark as a nation is growing rich in the operation. It is cheaper to ship bran from the Topeka mills to Denmark and pay the freight on butter from Denmark to England in addition, than it is to ship butter from Topeka's great creamery to England. This is but one instance where we have not honored that which was at our very door.

Kansas with her great wheat-fields furnishes the dairymen an opportunity that is perhaps nowhere else equalled. What other country can furnish pasture until the holidays such as is fur-



POPSY 3d.

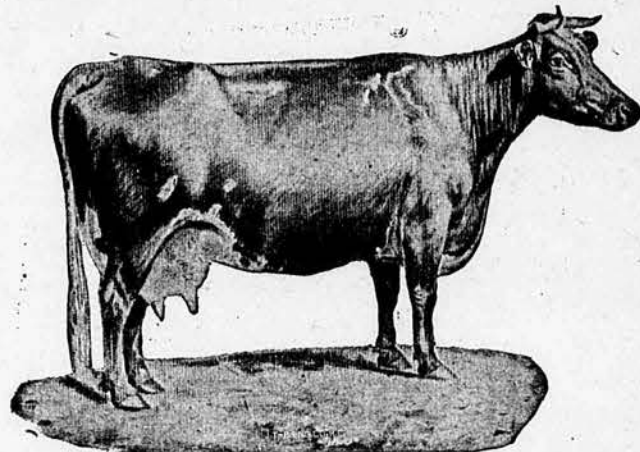
Red Polled Dual-Purpose Cow; 8,331 pounds milk, and 386 1/4 pounds butter in 12 months.

content with his present efforts at producing or breeding and rearing beef calves. It need not be feared that he will object to milking quality in his cows if calves of fashionable colors are produced. By the use of a bull having milk-producing blood in his veins, and the prepotency which several generations of breeding will insure, the first two or three crosses on selected common cows will give the farmer, cows producing easily two times greater profit than he now realizes from the best cows he is able to select.

The dual-purpose cow,—the combined milk and beef animal—is anxiously sought by the rank and file of the dairy farmers of Kansas. The breeder of special purpose animals, which are few, can, however, well afford to increase their herds and numbers. The demand for Jersey and Holsteins is of some importance and will be greater. The writer, alone, has this year received inquiry perhaps for 100 bulls of special dairy breeding, and as many or more inquiries for heifers and cows, most all of which inquiries we have been compelled to forward to breeders outside of this State. The Jersey and Holstein breeders have a place in Kansas. But the inquiries for Shorthorn and Red Poll bulls and cows and heifers of milking strains have exceeded these figures ten times. Then, breeders of this rapidly developing for your stock! The farmers of Kansas have the money to pay for these animals. By heeding this call you will have done more than any other company to develop the resources of Kansas and increase the profits of your own business while. Eastern breeders have not been slow to appreciate the popularity and the demand for dual-purpose animals, as

Grantville, Pa., the champion Shorthorn cow in the dairy test at Chicago World's Fair, in a thirty-day trial yielded 1,593 pounds of milk, making 62 1/2 pounds of butter. Two years later she produced 5,000 pounds of milk in three months, her best day being 65 pounds. She is a member of the best milking strain of Shorthorns in America. Her general purpose has been shown in one of her sons which headed a herd of milking Shorthorn cows and proved a highly prepotent sire, and after service was slaughtered. At five years his live weight in breeding condition was 2,080 pounds.

I wish that a picture of Kitty Clay might be thrown on a screen before this audience. Cuts of the cow are to be found in books and bulletins, but Major Alvord, chief of the dairy division of the U. S. Department of Agriculture, advises that none of these cuts do the cow justice. Kitty Clay is described as being a cow of almost perfect dairy type. She is thin and angular but not rough and not inclined to take on flesh during the milking season. She gives evidence of strong nervous force, nervous only in the sense of a highly developed nerve organization, not in the sense of being irritable, and in every way indicates a highly organized dairy animal. The cow is a positive opposite of any tendency toward beef. I might refer to several dozen registered Shorthorn cows which have made creditable records, each possessing good dairy form, but to do so would unnecessarily accumulate evidence of the proposition that there is a milking Shorthorn representing those strains of the breed which years ago has been bred, fed and handled for milk. Although latent in some lines of breeding, there is an inherent dairy quality which careful managers and feeders are able



SHORTHORN COW, KITTY CLAY 4th (Vol. 29).

Record at Columbian Exposition, at 9 years, 1,592.9 pounds of milk and 62.25 pounds of butter in 30 days.

know of no breed comparable to them to meet the requirements of the general farmer."

I do not propose discussing the relative merits of the Shorthorn and Red Poll. The milking strains of these breeds, the former in the World's Fair dairy test and the latter in the Model Dairy at Buffalo, have made enviable reputations as milk producers. The references suffice to support the fact that in each breed there is the founda-

nished by the wheat-fields of central Kansas, green and succulent and of such quality that June in all her luxuriance and sweetness can not produce its equal? What other country can, by furnishing such pasture, aid in producing a greater crop of grain the next harvest, and from this very grain derive that finest of concentrates for the milk-cow, wheat bran? Let the milking industry of Kansas be fostered that our great wheat crops may be

reduced to the finished product at home and the bran that we grow by the thousand tons be fed on the Kansas dairy farms.

Out of the uncertainties of the past we are learning many things. The drouth that so frequently occurred drove the farmer in search of the drouth-resisting crops and strange as it may seem by the developments that have come through search for these crops and their adoption by our farmers, we have added one by one crops that are of greatest value to the dairyman.

Our Indian corn alone with the native hay was a bar to dairy progress, both of them were incomplete as a ration, and the corn had its limits as to drouth and the prairie hay had to give place to more profitable crops. We have found that we can substitute for the corn the Kafir and sorghum and grow just so much good fodder and in most cases more grain. It has also been demonstrated that the grain of the Kafir is better adapted for the dairy-cow than was the Indian corn. The Kafir-corn, as through some guiding genius was ordering its fate, bides the drouth and waits for the refreshing shower and performs its duty to the dairyman by furnishing him a feed when all else of its kind may fail. The Kansas dairy man has an everlasting friend in the Kafir-corn.

From far-away Japan comes a little plant which is capable of adding material wealth to the dairyman, the soy-bean where alfalfa is not abundant will save the expenditures of many dollars for oil-meal, cottonseed-meal or gluten-meal. It also is resistant to dry weather and should be a part of the regular crops on a well-regulated dairy-farm.

It is a little peculiar that the greater promise an object has in the way of returns, the more reluctant we are to take hold of it. For years a stranger stood at the door knocking; we turned a deaf ear; no one heard the call. We were crying as from Macedonia for some one to come over and help us, but did not recognize the help when it came. Gradually a few men begun to see the light, and to-day, if we are not too "set in our way," we gladly welcome the greatest of them all, alfalfa. No dairy-farm is complete without it. None can be run successfully without it. The more we feed it the more we recognize its value in every line. Surely the lines of the dairyman have fallen in pleasant places and beside the still waters with this wonderful plants as his aid and comfort. Taking it all in all the Kansas dairyman is not knee deep in clover but in alfalfa. We have the cheapest feeds on earth, we grow them in abundance, we have cheap lands, we can place our butter in competition with the world if we will but be up and doing.

The profits of great business concerns of this day are made in reducing the cost of production. The Kansas dairyman with from three to six tons of alfalfa per acre, with thirty to sixty bushels of Kafir-corn per acre, with a 160-acre field of wheat to furnish him four months with pasture and bran for all the cows that he can keep, with prices at his door for the butter-fat equal to that of most of his Eastern competitors, may be thankful that he lives in Kansas. The strength of a chain is no greater than that of its weakest link. We may have cheap feed, good feed, lots of it, and if we give it to the poor cow we may lose all we gain. With all our natural and acquired advantages we have this weak link. The average cow is not worthy of her place in the stall. Statistics show that the average Kansas dairy-cow produces less than 100 pounds of butter in one year. It does not take a mathematician to figure out that at that rate of production and the present prices of feed that she will scarcely more than pay for her feed. In other words, she just earns her living but contributes nothing to the living of her owner. Unprofitable is written all over her.

A dairy cow to be profitable should give at least a pound of butter-fat per day during the period of her lactation. This is not too much to ask of her. Indeed, many dairymen get more than this amount. Speaking from the standpoint of a dairyman the average cow is a scrub, made so perhaps through successive generations of breeding for beef or lack of all breeding. To the members of this association I make a plea for the special-purpose cow. Raise either beef or milk and be satisfied with only the best in either line. Kansas needs more pure-bred dairy-herds. A cow that will produce from \$60 to \$80 worth of butter-fat in the year does not need to raise a gumptious calf that would meet

the needs of the beefman. In fact, I think the beefman would have to hump himself to produce a calf that would equal the butter-fat products of a good dairy-cow.

While I plead for better cows I also plead for better care of the cows we now have. Professor Otis has amply demonstrated that from the common run of cows we can soon select a herd that will pay a handsome profit over the average cow.

Last year during the high prices of feeds the scrub herd paid a profit, over cost of feed of \$12.03 per cow. This clearly shows that with ordinary years of crop abundance with common cows properly cared for we can sell every ton of alfalfa, every bushel of Kafir-corn, and every pound of bran for last year's prices and make a profit to pay for the extra work in feeding besides.

Kansas dairymen, awake to the advantages that are thrust at your door and bring our State to the front as a dairy State and add to your own material wealth, health, and happiness.

Dairying in Kansas from a Stock-Breeder's Standpoint.

W. F. JENSEN, TOPEKA.

Being called upon by your very able secretary to read a paper on the subject, "Dairying in Kansas from a Stock-breeder's Standpoint," I may say that for seventeen years I have been actively engaged in milking and feeding cows, although the past eight years my work has been principally that of operating creameries. The positions in which I have been placed have al-



W. F. JENSEN,
General Manager Continental Creamery, Topeka.

lowed me to see conditions as they actually exist in nearly all of the States and I take great pleasure in giving you a few observations on the subject in hand.

You have here what I think is the strongest association in Kansas. Your association is doing a great deal of good and will continue to do a great deal of good along the broad lines you are conducting the same. I understand that there are now nearly 1,000 members in this association who are engaged in raising thoroughbred stock. I take it that outside of this association there are about 160,000 farmers in Kansas engaged more or less in grain raising, in feeding cattle and in the dairy business. It is my intention in this paper to bring out a few points for your consideration, showing the relation the 1,000 thousand members of this association bear toward the 160,000 farmers. If I can bring to your attention a few points that you have not considered before, my mission will be fulfilled.

These 160,000 farmers are the ones you want to reach with your thoroughbred stock. They are the ones who can be benefited by the example you have set in up-to-date farming from scientific methods. I think that in late years the farmers in Kansas have more and more adjusted themselves to climatic conditions, to conditions of the soil, to methods most favorable for production, and have, to a certain extent, taken up diversified farming so as not to depend too much on any one line of work. This undoubtedly accounts for the general prosperity that we now have in the State.

In considering Kansas from a dairying standpoint, we can divide it into three different parts; namely, the Western, the Central and the Eastern parts. I will touch on each of these in a few words. Western Kansas is taking hold of dairying better than any other part. The conditions in Western Kansas are most favorable for profit-

able dairying. The average farmer has from two to three sections of land with plenty of pasture; he can raise enough fodder and feed (and in a great many places can raise alfalfa) to keep his cows on during the few winter months when they can not graze the pasture. Buffalo grass is the best feed in the world for butter. Cows feeding on this give a large quantity of very rich milk. Farmers in Western Kansas are today also feeding the Russian thistle to cows, and instead of this weed being a source of anxiety as it was a few years ago, it is now looked upon as good feed, especially when mixed with alfalfa or other fodders. Of course what makes dairying supreme in Western Kansas is the fact that farmers there can not raise grain at a profit, by reason of the fact that the crop is entirely too uncertain. The Western Kansas farmer finds that he can raise good calves and still sell from \$30 to \$40 worth of butter-fat per cow each season. That dairying is no small industry in Western Kansas can be seen from the fact that eight creameries now operating in Thomas County paid out in 1902 close to \$50,000 for butter-fat, or ten dollars for every man, woman and child in Thomas County. Dairying is still in its infancy in that part of the State.

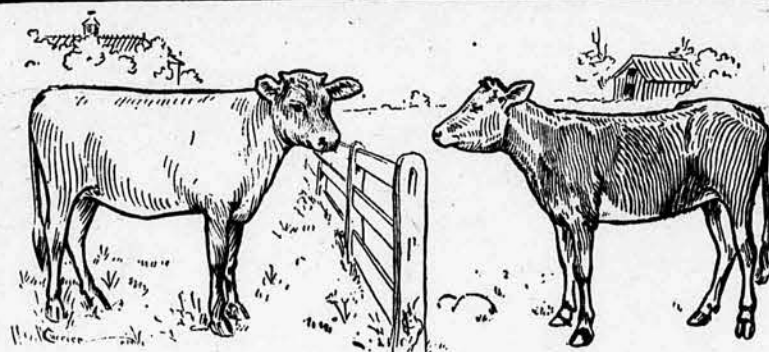
In Central Kansas the conditions are somewhat different. This is the great wheat-producing section. Dairying got its start in this section during the years when wheat was a failure or to say the least brought a very low price. Farmers in Central Kansas have a great many conditions dissimilar to those in Western Kansas. They can keep more cows on the same amount of land, and in addition they have their fine wheat fields to graze in the spring and fall. I have heard many farmers in central Kansas say that they have made more money out of their milk cows grazing on the wheat in the fall and spring than they made from the actual sale of the wheat itself.

Eastern Kansas should be the place where dairying should pay the best. However, for some reason Eastern Kansas has not developed along dairy-

ing lines to the same extent found in the central and western portions. However, it is growing in the eastern half and more cows will be milked in the course of time, as the farms become more divided and naturally smaller. The farmer who has to work a small farm is compelled to farm it for all there is in it, and with the exception of raising thoroughbred stock for sale no work the farmer can do will return him as much money per acre as will dairying when conducted properly.

The dairymen of Kansas now receive for their butter, cheese and milk, something like \$8,000,000 annually. This means \$40,000,000 in five years, \$80,000,000 in ten years. This is contributing greatly to the wealth of the State. This money goes to the farmer who needs it most. It goes to pay his every day's expenses and outside of its direct results it contributes indirectly to promoting economy and conservativeness. It brings in money every month which in itself is an item of no small consideration.

As we travel through the country, here and there are pointed out to us splendid farm buildings owned by men with large possessions of land and chattels. These are owned by men of superior talents and business qualifications and are the men of which this association is made up. These are the men who meet here every year to exchange ideas and learn from each other. But let us not lose sight of the vast majority of farmers who are making only a reasonable success. Some of them perhaps are indifferent about large possession and others have not had the opportunities. Such men this association wishes to reach, not alone in an educational way but for the reason that they are the ones whom the members of this association have to look for to the disposition of their thoroughbred stock. I have never affirmed that a distinct breed of dairy cows would be the most profitable one on Kansas farms. I draw the distinction in this way: The farmer who has a small farm, a small pasture, and who has to utilize to the best advantage all the feed he raises, can make the most money by having dairy cows, Holsteins



"My owner uses a U. S. Farm Separator and feeds me on the warm, sweet skimmilk."

"I wish my owner used one, but he does not, and I am fed cold, sour skimmilk, which accounts for my poor condition."

MORAL: If dairymen wish to raise healthy calves and also to get all the cream out of the milk,

BUY A U. S. SEPARATOR

It holds the World's Record for Clean Skimming, and the skimmilk is in the best condition for feeding

For Western trade we transfer our Separators from Chicago, Minneapolis and Omaha. Address all letters to Bellows Falls, Vt.

Write for Illustrated Catalogues

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

The J. P. Baden Produce Co.

Winfield, Kansas.

We will bind ourselves to buy your Separator Cream from any Centrifugal Separator on present basis for five years.

How Does This Proposition Impress You?

We will bind ourselves to buy your cream for five years on our present offer and give you the privilege of stopping at any time you desire. We will pay for Butter-fat in cream as shown by the Babcock test, on basis of quotation of Extra Separator Creamery Butter in New York, as follows:

New York Quotations Generally One Cent Higher than Elgin.
Within 150 miles of Winfield... 2 1/2c less | From 200 to 250 miles... 3 1/2c less
From 150 to 200 miles... 3c less | From 250 to 300 miles... 4c less

Mark your cans, deliver to your express agent, we do the rest. We will pay all express charges and return cans free of charge. We pay our customers twice each month. Give us a trial and you won't regret it.

We want your Cream; but you can stop shipping at any time it suits your interest, or convenience. If you send us only one can a month, we will thank you and use your right. When you commence doing business with us once you will have no reason to quit. Our manner of doing business, and our attractive inducements are bound to please.

The enormous business which we have established, and which is increasing every day in the face of strong competition, is evidence that we have the very best outlet and procure the highest market values for our finished products. This of course enables us to pay you more money for your cream and produce than others. Write us or call on us for further information.

THE J. P. BADEN PRODUCE CO., Winfield, Kans.

preferable. I do not consider that Kansas conditions and the rough Kansas feeds are congenial to Jerseys, but the farmer who has plenty of land, raises plenty of feed, can positively not make a mistake in keeping the Shorthorn cow or some other cow that will give a good quantity of milk as well as raise a calf that can graze the larger pastures, eat up plenty of rough feed and corn, and grow into a beef animal that will bring the top price in the stock yards.

I have no doubt but that the next few years will see a decided change in fat stock. The time is past when farmers will keep their young stock until it is three or four years old and then fatten it for sale. Most of the profit on the fat animal is received the first year or year and a half of its growth. I respectfully refer you to Bulletin No. 113, issued by the experiment station of the Kansas State Agricultural College. This bulletin is on "Baby Beef," and is undoubtedly one of the most interesting as well as one of the most valuable bulletins that has ever been issued by any experimental station in this country. From the dairyman's standpoint, the raising of baby beef will prove the most profitable. It will mean that the present method followed by many farmers, of letting the calves run with the cows until nearly a year old, will be a thing of the past. It will mean that the calf will at once be taken in hand, raised on skim-milk and meal and forced until it is fourteen to fifteen months old when it will be put on the market, sold at the top price and will bring its owner more profit for his time and investment than he otherwise would have received had he let it run with its mother until twelve months old, merely letting it exist for another twelve months, feeding it the while to develop a larger frame, then feeding and fattening and selling it when four years old. This latter method might pay where land is cheap and feed of small value. The first named method, however, is the one for the small farmer. He can do this without borrowing a large amount of money from his bank or the commission man at Kansas City. He can go right along with this in his regular work and I have no doubt but that the wealth of Kansas will be still greater when every farmer in the State raises some grain, milks some cows and fattens and markets his own young stock. This idea of ten or fifteen large stock feeders in every county having the privilege of fattening young stock for market, is a great mistake. Just as every farmer feeds and markets a certain number of hogs, so will the time come when he will feed and fatten his calves and market them when they are fourteen to fifteen months old without investing in them a great amount of capital, without having to borrow on them and paying some of his profits as interest. When a farmer can raise his own calves, fatten them and market them himself, if only on a small scale, he removes all speculative features from his work and is bound to make money.

After a farmer sells his butter-fat he keeps at home his skim-milk and we all know that skim-milk is better than any health food we can buy for hogs. Use skim-milk as a basis for bone, health and strength in the hog and use wheat, corn or barley to fatten him and you have an ideal combination that will raise the best hog most economically and with the least risk. We very seldom hear of farmers losing their hogs from cholera who have plenty of skim-milk or butter-milk to feed them to keep them healthy and in good condition.

I have stated before in this paper that exclusive dairy breeds are not needed in this State for the future development of the dairy business. For general purposes I consider the cow that will give a fair amount of milk and raise a good, big calf; one that consumes the rough feeds we have on the farm, as the most profitable. There is a field in Kansas for a breed of cows that answers these requirements. Many farmers are now in the market for thoroughbred stock they can use with their native stock to develop a herd that has qualities mentioned above. The majority of farmers in Kansas want a Shorthorn, a Red Polled or any other kind of breed that will improve his native stock. Some of the best records in the country for milk production have been made by large cows from the more distinct beef breeds. I will not say that this milk has been produced as economically as some milk has been produced by the smaller breed of dairy cows, but the question here in Kansas is not so much economy in feeding. Our feeds are not so very expensive. What we want is a fair average quantity of milk from the cow and a cow that will raise a

good large calf that we can fatten and sell at the top price in the stock yards.

From earliest history the cow has been one of man's best friends. We read of it and we read of the use of butter and cheese away back in the dark ages, but the cow we now have is no comparison to the stock they had in those early days. The cow of today is developed by careful selection and breeding to serve a distinct purpose and it would be well if Kansas farmers would decide just what kind of cow they need and want for the best results under the conditions they have. There should be more knowledge and study along this line. Dairying is a business that requires science and knowledge as well as a kindly disposition. The cow responds to scientific and kind treatment. It is the kind of work that requires more study, more systematic methods than, perhaps any other line of farming. Your association is setting a shining example for the Kansas farmer. Your success and your prosperity teaches him what returns he can receive if he will employ the same enlightened principles in his work that you use.

There is a great need in Kansas today for barns. So many farmers have no shelter of any kind and it means an enormous loss whenever we have snow-storms or severe weather. The farmer who handles twenty or thirty cows can save enough in milk production in two years to pay for a barn that will shelter that number of cows.

The milk cow in Kansas has helped many farmers. We can easily remember but a few years ago during the hard times, many and many a farmer se-

You can find out something you ought to know by writing to the

**BLUE VALLEY
CREAMERY COMPANY,
St. Joseph, Missouri.**

glance at the big mortgage locked up in one corner of the book-case, marked in big letters "paid." This would carry his mind back to the time when he and his faithful wife worked and worried over the wheat crop, trusting that the rains and sunshines would come in good season so that the interest on the mortgage could be paid and the home saved. He glances over the old mortgage and then up at the little oil painting on the parlor wall, and this is what he sees. A picture of a red cow, the first one he ever owned; the great-grandmother of all those fine types of cows out on the farm. Is it any wonder as he places the old mortgage back in the bookcase, that the

Technically speaking, cream is one of the component parts of milk, and when we hear the word it suggests this idea. Milk is composed of water, sugar, ash, casein, or cheese, and butter-fat or cream—and some dirt. The largest element in milk is water which, I believe is estimated at about 87 per cent, and of butter-fat, which is the principle ingredient in cream, there is about 4 per cent. The value of milk is determined (as a rule) by the amount of cream or butter-fat there is in it. The per cent of these constituent parts vary in the milk from different breeds of cows, and I feel that it is barely possible (in view of all the breeds being represented at this meeting) that I will be making no mistake if I desist from making any effort to discuss the particular breed that, in my opinion, produces the best result along this line. The difference in the quality of milk is not only noticeable in different breeds of cows, but locality seems to have a great deal to do with it. For instance, Topeka milk has a large amount of cream in it, and, in consequence, has a rich golden color, while in Kansas City milk the percentage of water is very much higher and the yellow appearance it has is due to the kind of water they use, "Missouri River." It is unnecessary to refer to the success of this organization during the past year. In the announcement of this meeting by your secretary, I notice you have 521 members and that 77 counties are represented, also that you occupy the only position that is at all satisfactory to a Kansas man. You are at the head of the list of all similar associations in the United States, in point of numbers. The name of this organization, and its object; the State in which it was organized; the State in which you live; your deliberations at former meetings and the wonderful things you have accomplished; your rapid advancement and wonderful progress; the influence exerted by you; the deference shown you by the cattle interests of the world; and more than all, the very appearance of this distinguished body all go to conclusively prove that the personnel of this association in its relation to the farming and stock interest of the Sunflower State, is made up of "The cream of it."

I notice this association is composed of stock-breeders, which includes cattle, hogs, horses, sheep, goats, and in addition, the general farmer and stock-feeder. We have every reason to believe that each representative, and each member carefully considered the particular branch he would take up, the course he would pursue, and the kind of stock he would handle, and as an acknowledgement of his intelligence, we are compelled to conclude that in his opinion he decided on "The cream of it."

The cattlemen here represent the pure breeds of Shorthorns, Herefords, Aberdeen-Angus, Galloways, Red Polls, Jerseys, Polled Durhams, and Holsteins, and the natural tendency and inclination of cattlemen certainly warrants us in venturing the opinion that each believes his particular breed "The cream of it." The cattlemen in Kansas (as well as elsewhere) whose name is legion, is in a wonderful business, and has always been regarded as a very potent influence and a powerful factor in the social, political, and commercial world.

Since time immemorial we have done obedience to him because of his calling. He lives in a fine house, and owns a big farm. To make it sound smoother, and more important, we call it a ranch. He has a good saddle horse and owns a fine carriage; he has gas, electric lights, and telephone; he sides in a sleeper, eats in the diner, and carries a pass. He is asked to every prominent social function; he is



W. W. MARPLE, St. Joseph,
President Missouri State Dairy Association.

cured his entire income from his herd of cows. Many more farmers have taken up this work during late years of prosperity, and some farmers have dropped out from the dairymen's ranks, but if the Kansas farmer is wise he will not depend entirely on wheat or corn or beef raising. He should consider the milking of a few cows at least.

The price of milk at the present time is higher than it has been for ten or fifteen years and the prospects for the future have never been better. The population of the United States is growing. The consumption of butter and cheese is increasing while taking the country as a whole, the production of butter and cheese has not increased to any great extent during the past ten years, and thus we have today, conditions where a pound of butter or cheese brings 50 per cent more money than it did five or six years ago. Kansas creameries are quite prosperous at the present time and while it has been a problem for many just how to keep cows on the farm and tide over the shortage of feed due from drouths, still less cows have been sold and shipped out of Kansas during the winter than ever before and the Kansas cow will commence the season of 1903 with good prospects of making a better record than ever before.

The reports of large wheat crops do not affect the Kansas dairy farmer. The sad experience of the days when he raised wheat exclusively, is still fresh in his memory. If anything were needed to carry his mind back to those days it would be only to

light of gladness comes into his eyes? He can see his cows in the shade of the big tree, and, away beyond, the smoke as it issues from the chimney of the village creamery, and he knows that the cows and the creamery are the emblems of prosperity, and he, like thousands of other Kansas farmers, will go on milking his cows content to let other farmers follow any industry that they see fit.

The Cream of the Business.

W. W. MARPLE, ST. JOE.

Did you ever look in a dictionary for a definition of the word "cream," or have you always known by intuition, or from information derived from some other source? It has more than one meaning, and is used in more than one sense and is applied in very many connections. There are two prominent ideas conveyed in the use of it. One is its literal meaning, a part of milk; the other figurative, and is designed to convey the idea of superiority, the best part of anything; the choicest bit; the essence or quintessence, hence it is used in designating a breakfast food, a ladies' face application, a brand of cigars, and it is a name given to sweetmeats, and to the finest quality of liquors. As applied to this last-named article I intend this to be real genuine information to a Kansas man. For while I have no doubt many have been advised of this fact when business called them over into our State, I thoroughly appreciate that they "deserve breath it" when they get back home.

importuned for his influence by every political aspirant and deluged with letters and circulars from the commercial world. He is chairman of the executive committee and a director in the bank; he is one of the school board and a member of the Legislature. In every department of the business, from the cowboy on the Western plains to the cattle magnate on Wall Street, he exerts the same influence, and receives the same treatment, appreciates the same thing, "The cream of it."

He has a place in the Senate, and occupies the Governor's chair, his voice is heard in the halls of Congress, and a short time ago one broke into the White House and is to-day directing the affairs of the greatest nation on earth. The bank vaults of the old and new world are open to him, and he enters the private office of the railroad president unannounced. The world receives him with open arms and we are almost ready to say, "He is monarch of all he surveys." He side-tracks a passenger train (full of weary, hungry, and travel-stained tourists anxious to get home) for an hour, waiting till he gets past with his load of steers. He stops a train at any station he wants to get on and calls the general manager of a railroad by his first name. He gets everything he asks for as a rule.

State boards of agriculture and agricultural colleges are interested in gathering information from every possible source, concerning the selection, the breeding, the care of, the feeding, and the marketing of stock. At their instigation meetings are held and these questions are discussed pertaining to the betterment of the stock-breeder, the stock-raiser, and the stock-feeder. Local, State, and National associations convene. Fat-stock shows are of frequent occurrence and annual sales are extensively advertised. Excursion rates are given, fast trains are furnished and the warmest and most cordial reception awaits the cattleman everywhere. Commercial clubs and boards of trade open their rooms, give banquets and each vie with the other to see who can do the most toward entertaining the visitors. Business suspends, courts are dismissed, deliberative bodies adjourn and their coming is hailed with the most eloquent addresses of welcome. In the face of all this, and much more, do you wonder that my boy, and your boy, is fascinated with this business, and do you fully realize the responsibility resting on you as cattlemen of Kansas?

In the discussion of this question we are not unmindful of the debt of gratitude we owe you. We can never forget the very important part you have played in the development and improvement of this country.

You invaded the Western plains and prepared a home for the farmer and business man by driving from them the Aborigines and every enemy to civilization. Towns were established as commercial centers, to satisfy your demands; school-houses were erected with the taxes you paid, and churches were built with your generous contributions. You laid the foundation for a prosperous business and a wonderful country. You invited immigration and promised protection, and, to-day, while your range may have been interfered with, while you may have been crowded back a little farther West, the country where a few years ago the Indian lived and the buffalo roamed at will, a howling wilderness, a sandy desert, has been made to blossom as a rose. Where the tepee stood, to-day there stands a magnificent dwelling with all modern conveniences. Where a few years ago there was nothing but a dog-town, to-day there is a large city with telephone, electric lights, gas, water-works, and street cars, and more than all, where a few years back, the only inhabitants were a roaming, discontented set of red men, there is to-day a happy, contented, prosperous people.

The relationship of the swine-breeder and the cattleman is exceedingly close. The net profit on the hog that was fattened in the feed-lot has saved many a cattle-feeder from financial ruin. In addition to the hog having entered largely into the profits of the Kansas farmer and breeder, he is an historic animal, and has much to do in shaping the destinies of men. Through him, whole sections of country have prospered and large cities have been established. We associate him with the names of the greatest financiers, Swift, Armour & Co., and it is due to his silent influence after his death that our sister city at the mouth of the Kaw has made such wonderful strides. Through his product the very closest commercial relationship has been established between this country

and foreign nations. You breeders have furnished a table d'hôte for the Four Hundred of New York and the crowned heads of Europe, as well as the most substantial diet for section men and day laborers of America. You have created a demand that is constantly growing, and met the requirements by furnishing the supply to meet it. You have improved every known means of preparing this product. I notice there is represented in this association Poland-Chinas, Duroc-Jerseys, Berkshires, and Chester Whites.

The next animal on the list represented at this convention is one in which there seems to be universal interest. From the youngest to the oldest there is nothing but the strongest feeling of admiration for the horse.

As compared with other animals it would seem almost proper to say of him that he is first in war, first in peace, and first in the hearts of his countrymen. He is beyond all question indispensable. He is "A thing of beauty and a joy forever." He is the first animal whose name we learn to lip. He brings to us our friends to welcome us at our birth and hauls us to our last resting place at death.

It would seem that the combined effort of genius and capital has been to remove the necessity for his services and close up the avenues for his usefulness. However, with all this there are many places where he is preeminent and can never be dispensed with. The cattleman will always need him. There will probably never be a time when man's inventive genius will have supplied his place with an acceptable substitute for catching a steer.

It is no wonder when they carved the statue of Phil Sheridan and placed it in Lincoln Park, Chicago, that they put him on a horse. In history, in everybody's mind they were inseparable. We simply desire to say to the horse and mule-breeders, members of this association, there is no department of stock-breeding to which we extend a more cordial greeting. There is no department more important, and I come to you to-night in the name and in behalf of every citizen in Kansas and every citizen in Missouri, and every citizen of the United States. I pledge you their support in protecting and advancing the interest of your business and in the selection of your goods. There is no class that shall be excluded. We want your heavy, big-bodied, short-legged, big-footed animals to haul our drays and large transportation and ice wagons. We want one grade lighter to haul our barouches, cabs, fire-wagons, horse-carts, and hearses. We want your long-bodied, high-headed, active horses for carriages and buggies for double and single driving.

We want your homely, awkward-looking horses for running; something we can bet on and lose our money quick. We want your speedy horses for trotting and pacing exhibitions. We want your spotted horses for circus purposes. We want everything you have got from a beautiful little Shetland pony for our children to play with to a broncho for our cowboys, and in this pledge we would not forget the half brother of the horse, the mule. We want all of them. We want your largest size for city teaming and railroad building. We want your medium size for Western farming and ordinary road work. We want your small sizes for raising cotton in Georgia, and your little, knotty, scrubby, insignificant things to put down into the coal mine.

There is no country on the face of the earth that will not always welcome your product. While wonderful strides have been made in the improvement of all kinds of stock, there is none more noticeable than the horse. He is faster and stronger and handsomer and more intelligent than ever. This may be true of the human race as well.

It has been said that precious articles are done up in small packages. If this is true, the most valuable of all the animals has not yet been mentioned, the sheep. However this may be, it is certainly true that from the time of its use as an acceptable sacrificial offering until the present it has been woven into the history of the country both sacred and secular, ancient and modern, and its wool has been woven into all kinds of fabric, both ornamental and useful.

I'm not sure but the first scrap of which we have any record was over a sheep. This resulted in the death of Abel, and it would almost seem sometimes that there was then a precedent set that has been followed ever since. I have thought sometimes that the disposition to neglect small things as evinced by the ordinary American has accounted to some extent for the lack

of universal interest in sheep-breeding and sheep-raising.

In the country where I was raised, when I was a boy every farmer had sheep and when they sheared them they carded the wool, spun it and wove it themselves into suit cloth, blankets, dress goods, and they were an absolute necessity. Don't forget that this little, patient, innocent animal not only furnishes us an article of diet but furnishes the material for our clothing, and while it is true that in that section of country where they used to make wooden nutmegs, they have learned to make a very good all-wool cloth out of South Carolina cotton, we can never dispense with the raw material furnished by the sheep, and every man, woman, and child throughout the country is directly interested in the success of the sheep-breeder and raiser, and in their behalf we desire to bid you "God speed." Wish you success and assure you that you are approaching closely the cream of the business.

At this juncture I ask your indulgence to the extent of permitting me to omit any comment on the next animal named in this program, the goat. I ask this purely on the grounds of absolute ignorance on the subject. I deal altogether in another kind of "butter."

Gentlemen of this convention in which is represented all of the different kinds of stock, we thoroughly appreciate that yours is a wonderful business, a business through which you have made for yourself a name and won fame for the great State of Kansas, a business in the interest of which laws have been passed and railroads have been built to your feed-lots; a business which has received the financial support of nearly everybody and the moral support of all; a business recognized by everybody as not only legitimate but attractive and elevating; a business that entitled you to a membership in any organization and is a passport into any society.

The high standard of your calling is due to your own effort and the intelligence with which you have prosecuted it. By your interest and general deportment you have shown that you were proud of your business. The open arms with which you have been received everywhere and the deference shown you is evidence that the country is proud of you. You have carefully selected your stock and improved it by breeding. You have sought information from the best periodicals in the country. Good farm and stock journals are regular weekly visitors at your home. You have been regular attendants at institutes, stock meetings, and conventions, and not only discussed with those in the same business those questions that were unsettled in your mind, but listened to the reports from experiment stations run in your interest and for your benefit. You have regularly visited the great stock markets and packing-house districts of the United States. You have come in contact with the brightest of men who were interested in the same things. You have interviewed buyers and sellers and shippers and packers and bankers, and not only learned a great deal but enjoyed the relaxation and rest that made you happier and led you to greater success.

In concluding this message, I will not have done my duty until I remind you that while your body is being relaxed, your mind rested by new scenes and new surroundings, the cream of your family who for generations has cheerfully done the routine drudgery of your household, a willing slave to you and your children, is at home manufacturing a product that for forty years has paid the highest profit of anything raised on a farm.

In our seasons of success and prosperity I'm sure we often forget to show our high appreciation of those who stood by us in adversity. To the Kansas man, I do not hesitate to say (in the language of Governor Hoard of Wisconsin) "You should never pass a cow without tipping your hat and saying, 'Good morning, madam.'" For of all your friends that have been substantial there is none more worthy than the Kansas cow.

When the cold, bleak Northwest winds blew and the snow fell and your steers drifted south to the land of sunshine and evergreen, many never to return, his faithful sister stayed by the ship and picked up a few blades of corn, an occasional Russian thistle, some old straw, and out of these made the raw material from which a finished product was made that was currently exchanged on the market for flour, coffee, tea, sugar, and chewing tobacco.



Throwing Butter Away

by the old method of skimming milk is rank folly. With a National Cream Separator you can save 80 per cent. of the butter-fat you are now throwing away. It separates both warm and cold milk, light or heavy cream and skims practically clean. We send it **Free for 10 Days** trial. Let you test it—see for yourself the saving it makes. If not satisfactory, send it back—we pay all costs. Catalogue free. National Dairy Machine Co., Newark, N. J.



The EMPIRE CREAM Separator.

The Easy Running Kind. Will give better satisfaction, make you more money and last longer than any other. Our book shows why. Send for it. Empire Cream Separator Co., BLOOMFIELD, N. J.



BUTTER MAKERS

make better butter and more butter by using the **KNEELAND OMEGA CREAM SEPARATOR**

simple, cheap, efficient. Easily cleaned. Free from repairs. Guaranteed to suit or money back. Send for Free book, "Good Butter and How to Make it." The Kneeland Omega Creamery Co., 225 Concord St., Lansing, Mich.

When that dreaded disease cholera swept your hogs from off the earth, the product from the cow which you had been giving to them was converted into butter and sold at a much higher price than pork.

When the epizootic killed your horses and the blackleg your fat cattle and the cholera your hogs, and the scab your sheep; when the floods came and destroyed your crops; when the withering hot winds blew and burned every sprig of vegetation, a half million Kansas cows said, "We will take the withered remnants that are left and convert them into a product that will furnish you with provisions and clothing."

When the wheat crop was short and the price was low; when corn was almost worthless and no cars to haul it away in; when business was stagnant and everything produced was at a loss; when debts had been contracted and mortgages were falling due this same good faithful Kansas cow came to the rescue and relieved the strain by converting this cheap feed into a high-priced product and with the returns liquidated claims and paid mortgages.

The broad view with which stock-breeders contemplate everything enables them to see wonderful results from the proper handling of her product and the unlimited extension of the dairy business. While I've never seen one in this State, I want to say that the man who fails to be impressed with the importance of the cream of the business literally because of his idea that it is a small business, has no conception of the merit in the business, is looking at it from a small small mind and through small eyes.

I come to you to-night with a message from three and a half million people from your sister State, Missouri, who have depended on you to show them, and to date they have never been disappointed. I come in the interest of over two million people in your own glorious State, in behalf of all the living and in memory of those who have given up their lives in the struggle for supremacy and ask your serious consideration of an industry in your line that bids fair to be the largest, the most important and the most remunerative department of agriculture in your State, the cream of the business (dairying), with the highest appreciation of this privilege, to present this matter to you with assurance that it will meet with that hearty response that always characterizes the great, big-hearted, enterprising stockman.

I ask you, gentlemen, to give this your unquestioned approval, your moral support. Unite your forces with the untiring efforts in this direction of your very distinguished secretary of the State Board of Agriculture, F. D. Coburn, and permit me to say whatever assistance you want from him you had better get it now for we are certainly going to send him to Washington where he will be as much ours as he is yours. Unite with that

Institution of such importance in your State, the Agricultural College and experimental farm, and assist the very competent representatives you have there.

Let the fame given to Kansas by her politicians and literary men, let the notoriety she has acquired through her celebrities of world-wide reputation, be perpetuated through the medium of the greatest dairy business in the world, the cream of the business.

In the name of two hundred thousand boys and girls of Kansas who are undecided as to where they shall live and what they shall do; in the name of two hundred thousand faithful wives, mothers, and sisters who have done so much and received so little in the building up of this country, on the monument of fame that you have erected and are still adding to, on which is inscribed, "A network of railroads," "a cattle country, a horse country, a hog country, a sheep country, a wheat country, a corn country, a grass country, a healthy country," and in addition you have written the names of "Funston" and all the host who followed him; John J. Ingalls, whose voice was heard so long and effectively in the Senate chamber; Gov. St. John, who distinguished you by his candidacy for President; Jerry Simpson, who was unconsciously advertising a mild climate in Kansas by the reference made to his manner of dress; Carrie Nation, who electrified a whole continent by breaking a mirror and whipping the mayor; Rev. Sheldon, who with one stroke started every paper in America and Europe to talking about Kansas; all these and many more.

I ask to-night that on the very pinnacle you write in letters of gold, "The cream of the business, a dairy country."

TUESDAY MORNING SESSION.

Report of Committee on President's Address.

O. P. Updegraff: Your Committee on President's Address offers the following report:

The opportunity offered the committee for making a careful review and diagnosis of the president's address with regard to recommendations to this association has been very limited, but we hope that we have reached the important points of the address that this association, we think, should act upon, the first of which is the committee recommended to be appointed to visit the Governor and seek his aid towards the State fair proposition, together with calling upon the different Representatives and Senators for the same purpose. We find, however, upon examination of our records that there is a standing committee, whose duty it is to do that which has been recommended by the President, of which committee M. S. Babcock is the chairman. It might be well, however, in this connection to say that that committee needs the support of every member of this association; and further, every member of this association should address, by letter or in person, their Representative and Senator, imploring their aid at this time for the appropriation that we are seeking—that of a permanent one for a State fair. If there ever was a time in the history of our State when we feel that we can get an appropriation, it is at this present assembly.

This committee would recommend to this association the appointment of a permanent committee on railway freight and express charges in the shipment of live stock. The committee also would recommend the appointment of a committee on exhibits at the St. Louis exposition.

Your committee also recommend the appointment of a committee on deceased members.

We also urge the committee, which is to meet at Kansas City to-morrow morning, to consider the importance of having included in the American Royal Show a department of draft and coach horses, and some action we believe should be taken by this association in this particular, following out the President's intention in his address along that line.

Upon motion of Geo. W. Maffet, the report of the committee was unanimously adopted.

Secretary Heath: There is a matter of business that came up this morning on which there should be action taken and a committee appointed. A great many of our members and others not members have fine stallions and jacks which they stand for service. There seems to be a multitude of systems

for this class of business, and it is the desire on the part of the membership who are interested in that that we should have a committee appointed to draft a uniform plan of action for stallion owners. Recently there was a meeting of the members interested in Leavenworth, Atchison, and Jefferson Counties, and they organized. Mr. Corson, of Leavenworth, is here, and I would like to have him called on in reference to this matter. I think it would be wise to appoint a committee after we hear from Mr. Corson in regard to the matter.

O. J. Corson: We had a meeting in Leavenworth County last week to try to formulate some system of breeding in the line Mr. Heath has spoken of. I was selected as a delegate to come here and meet with you and try to get you together to see if we could formulate some plan on this matter. If there are any parties here that wish to confer with me on this matter, I shall be glad to meet you.

Mr. Maffet: What points do you want to cover—legislation or scale of prices?

Mr. Corson: That is our idea in Leavenworth County—uniformity of prices, etc.

M. S. Babcock: I move a committee be appointed to confer with Mr. Corson on this matter.

The president appointed J. W. Robinson, chairman, C. E. Westbrook and J. F. True.

Report of Committee on New Live-Stock Classification.

Secretary Heath: There is another committee that should be appointed. We ought to have a committee on new live-stock classification. This comes as a request from the secretaries and managers of the different fair associations. We have it pretty well covered, and the committee might make some additions and corrections, and bring it up to date and present this matter to the association later. We can take what has already been done and bring it up to date. I move the committee be appointed.

The President appointed James Tomson, of Dover, chairman, George W. Berry, of Emporia, and C. M. Irwin, of Wichita.

The association adopted the following live-stock classification, which it recommends for all Kansas fairs:

For all beef and dairy breeds of cattle the following:

1. Bull 3 years and over.
2. Bull 2 years years and under 3.
3. Bull 1 year and under 2.
4. Bull 8 months and under 12.
5. Bull under 8 months.
6. Cow 3 years or over.
7. Cow 2 years and under 3.
8. Heifer 1 year and under 2.
9. Heifer 8 months and under 12.
10. Heifer calf under 8 months.
11. Four animals the get of one sire.
12. Two animals the produce of one cow.

13. Exhibitor's Herd—consisting of 1 bull 2 years or over, 1 cow 3 years or over, one 2-year-old, one yearling, and one heifer calf.

14. Breeder's Young Herd—Consisting of one bull under 2 years, 2 yearling heifers, and 2 heifer calves. Heifers must be bred by exhibitor.

SWEETSTAKES OR CHAMPIONS.

15. Best bull over 2 years.
16. Best bull under 2 years.
17. Best cow over 2 years.
18. Best heifer under 2 years.
19. Best bull any age.
20. Best cow or heifer any age.

Base date for computing age, September 1.

BREEDS OF SWINE.

1. Boar 2 years or over.
2. Boar 18 months and under 2 years.
3. Board 12 months and under 18 months.
4. Boar 6 months and under 12 months.
5. Boar under 6 months.
6. Sow 2 years or over.
7. Sow 18 months and under 2 years.
8. Sow 12 months and under 1 year.
9. Gilt 6 months and under 12 months.
10. Gilt under 6 months.
11. Herd consisting of 1 boar and 3 sows over 1 year.
12. Herd consisting of 1 boar and 3 gilts under 1 year.
- 13 and 14. Duplicate above herd premiums for herds bred by exhibitor.

SWEETSTAKES OR CHAMPIONS.

15. Best boar over 1 year.
16. Best boar under 1 year.
17. Best sow over 1 year.
18. Best sow under 1 year.
19. Best boar any age.
20. Best sow any age.



Any Horseman

of experience knows that there is no Liniment so efficient and absorbent and quick as well in its action as

Sloan's Liniment

It is not a cheap wash but a genuine pain reliever and scientifically curative preparation.

Sold by all Dealers. Horse size, 50c. and \$1 per bottle. Family size, 25c.

Base date for computing age September 1.

HORSES.

All entry fees for breeding classes be abolished.

Base date for age of all draft and coach classes shall be the registered date of foal. For Standard-bred or light-harness class of horses, January 1.

1. Stallion 4 years or over.
2. Stallion 3 years and under 4.
3. Stallion 2 years and under 3.
4. Stallion 1 year and under 2.
5. Stallion under 1 year.
6. Mare 4 years or over.
7. Mare 3 years and under 4.
8. Mare 2 years and under 3.
9. Filley 1 year and under 2.
10. Filley under 1 year.
11. Horse and 4 of his get, any age.
12. Brood mare and produce, any number.
13. Draft team in harness.
14. Best stallion, any age.
15. Best mare, any age.
16. Best herd, 5 or more stallions, any age included.

SHEEP.

The same classification, all breeds, as adopted by the International Live Stock Exposition.

English Blue-Grass Culture and Its Special Value.

GEO. PLUMB, EMPORIA.

About twenty-seven years ago English blue-grass was first introduced in this State by the Barteldes Seed-House, of Lawrence. Most of this time it has been raised for its seed only. But it is beginning to attract considerable attention, especially in the central part of the State, as pasture; and I consider it the best of the tame grasses for that purpose here, because of its hardiness.

It will stand drouth, is not injured by wet weather, it is easy to get a stand, and it will furnish a large amount of feed. Neither does it seem to be injured by close cropping or trampling. It is a very rapid grower, coming earlier than our native grasses, and it can be pastured until Christmas.

In the season of 1896 I sowed 160 acres of fair Kansas upland to English blue-grass, using eighteen pounds of clean seed, and adding four pounds of red clover seed to the acre. I covered it with a disk harrow, and crossed it with a smoothing harrow. This ground had been rented for some years and had become very foul. As it lay in the corner of a section that I used for pasture, I thought I would seed it down, and use it for pasture late in the fall, after the prairie-grass had failed.

The next summer I harvested the seed crop, which made about twelve bushels of seed to the acre, and sold for \$1 per bushel. About the 20th of October I turned in 200 head of 3- and 4-year-old Texas cattle, that I had just brought in from the range. They were left in the field until the first of January, and obtained all the feed necessary from the grass to make them do well, excepting the last two weeks, when I gave them a little shock-corn; and I think they were in a far better condition than they would have been in a feed-lot and fed in the usual way.

Since then I have increased my acreage and at has never failed to make as good a return on the investment as any crop on the farm. It has always furnished me a good fall and early winter pasture; and the seed crop has never sold for less than \$1 per bushel, and sometimes as high as \$3 per bushel. I consider it one of the things that has come to stay, and that it will be used for pasture more and more as the wild grasses fail.

It is a hardy plant, and I have never

known a failure to get a good stand. It makes a good hog pasture, and I prefer it to alfalfa. I shall put in 200 acres next season for pasture; putting the ground in oats in the spring, and after this crop is harvested sometime in August I will disk the ground both ways with a disk-harrow, then put in blue-grass with a disk-press-drill, using twelve pounds of clean grass-seed and four pounds of alfalfa-seed to the acre.

DISCUSSION.

Gov. Glick: I want to raise the question of the correct name of that blue-grass, or whatever it is.

Mr. Fitch: The name it is most commonly known by is meadow fescue. I suppose it is known as "English" because it grows there.

Col. J. W. Robinson: The name of that plant has come with it from the foreign country, and it got its foreign name before it came here. We have renamed it English blue-grass because it is so much larger than the Kentucky blue-grass. A few years ago here everything that was bigger than anything we had we called "English"—English Shorthorns and English Herefords. I think I have sown in the last twenty years in Kansas every grass I have ever seen recommended highly from any authority—more than twenty varieties of these grasses, and unless it may be timothy I should put that English blue-grass at the head of the list—not superseding clover or alfalfa; but of all other grasses, with the possible exception of timothy, I should put English blue-grass at the head. It thrives everywhere and has taken possession of the hill-sides, as our common blue-grass has taken here. It is a very close relation to the blue-grass. Its seed ripens about the first of June and the practice in the counties east of Butler is to sow it for the seed crop largely. Half a dozen counties lying immediately east of Butler use it extensively for the seed crop, and a year ago this last summer many fields produced \$50 worth of seed per acre at the unusually high price existing then. That stimulated the growth, and this year the price is much lower. It is cut off before there is a great deal of foliage. The head comes above the leaves, and it can be cut with a self-binder or with a drop machine or self-rake, and carry off the seed with very little of the blade. Immediately on removing the seed the crop then starts up and has a growth of long, heavy blue-grass leaves, frequently growing three and sometimes four feet in length, by the time frost comes, that would make an average of a ton or two of blades to the acre. It is in its most excellent condition for pasturing when the prairie hay gives out, and all of you stockmen, especially those raising any fine stock, know how valuable it is to have some green feed and to be able to continue the pasture season into the early part of the winter. It lasts longer than alfalfa, although down in my country we are still at this time pasturing alfalfa. The seed crop pays and the pasture pays. We get two crops. I have never known a year yet that the seed didn't pay on the first or second crop. After the first or second crop, the sod gets so compact that the seed is less productive than on earlier crops. As to fall sowing, it carries over the winter as well as common wheat; not but what it may be killed or blown out, as all other plants will in some parts of Kansas, but it carries itself through the winter about as well as wheat. It ought not to be pastured the first year or better not at all, because it needs all the looseness of the ground and all the fertility to stimulate the growth.

(Continued on page 98.)

PILES NO MONEY TILL CURED. 25 YEARS ESTABLISHED. We send FREE and postpaid a 200 page treatise on Piles, Fistula and Diseases of the Rectum; also 100 page illus. treatise on Diseases of Women. Of the thousands cured by our mild method, none paid a cent till cured—we furnish their names on application. **DRS. THORNTON & MINOR, 1007 Oak St., Kansas City, Mo.**

An Ideal Sale of Shorthorns.

One of the most attractive sales of Shorthorn cattle of the year, consisting of select consignments from two of the celebrated Shorthorn herds of America, will constitute the great Shorthorn event of the season, as per the announcement on page 112 of this week's Kansas Farmer.

The two days' sale of Shorthorns (Scotch and Scotch-topped) will be held at Kansas City, February 10 and 11, should get the attention of a wide circle of cattlemen. This sale is to embrace liberal drafts from the two noted Missouri herds of T. J. Wornall & Son, at Liberty, and that of Col. G. M. Casey, at Clinton. About twenty straight Scotch cattle are included in each draft, and numerous best Scotch tops mark the balance of the offerings, but for a very few of straight Bates breeding. Both of these great herds of Shorthorns have become famous because of records made in present-day show-yard circles.

It is not our purpose to recite these records of triumph at this time, since it requires space not at our command. Let it be known and borne in mind, however, that the present draft of sale cattle from either of these great herds is to embrace much the same blood-lines that have served to make these herds the keystone to the great Shorthorn arch that spans the continent. Recent inspection of this grand double-draft offering of Shorthorn cattle at their respective homes makes us bold to say that they are a thoroughly meritorious lot of breeding cattle. They are away up the ladder in point of scale, form, and quality; and, best of all, they consist of a lot of cattle that approximate perfection as breeding cattle. They are a set of cows that drop their calves and raise them. The heifers included are of breeding age and bred. The young bulls are a clean lot of well-bred young fellows, several of them constituting superior herd-heading material, and they are to be found in either section of the offering. In the Casey draft are no less than twenty calves at foot of dam, representing largely the get of the great sire, Alice's Prince, out of the great Princess Alice by Field Marshall. Princess Alice was one of the most noted cows of the breed, and it is one of the coincidences of time and circumstance that this great cow was once owned by Mr. E. D. Mitchell, present manager of Tebo Lawn Herd, and the youngster, Alice's Prince, developed under his hand and care. A dozen or more of these cows are bred to the great show bull and champion, Choice Goods. It is impossible to have a more attractive offering brought before the buying public, with prospect of their going at strictly moderate figures. Our readers may feel assured that these cattle are put up to sell, and they will go unqualifiedly to the highest bidder. We should like to see readers of Kansas Farmer take a lively interest in this sale of good things. The first thing to be done is to ask for the catalogues of both offerings, and then note carefully what may be said in future issues. For the Casey catalogue, address E. B. Mitchell, Mgr., Clinton, Mo., and for the T. J. Wornall & Son catalogue, write them at Liberty, Mo., kindly mentioning Kansas Farmer in so doing. See the advertisement on page 112.

The Winn & Mastin Poland-China Sale.

On Friday, February 6, Winn & Mastin, of Mastin, Kans., owners of one of the largest and best herds of Poland-Chinas in America as well as the champion show-herd of the breed are going to sell on the auction block at buyers' own prices fifty head of yearling and 2-year-old sows, that are exceptionally fine in individuality and sired by the great kings of the breed, such as Proud Perfection, Corrector, Perfect I Know, Keep On, Chief Perfection 2d, Perfect Perfection, Missouri's Sunshine, Ideal Sunshine, Mo.'s Black Chief, and others. Has there ever been a greater cabinet of boars put forth as the sires of a sale offering? They will be bred to Mischief Maker, sweepstakes boar at the Iowa State Fair and American Royal this year, Proud Perfection, Corrector, Corrected, Mo.'s Sunshine, Lamplighter, and Gay Monarch, the greatest living son of Perfect I Know. This matchless bunch of sows are bred for February and March farrow and will be in great shape to do the buyers the best good at the time of sale. According to the American Swineherd there is not an ordinary sow in the offer-

ing, and everything considered is the evenest lot of royal bred sows of great quality that has ever gone into the sale-ring. This stuff has the advantage and additional value of being safely immuned by the De Vaux Antitoxin, and parties are securing the benefits of this extra precaution in the interest of their health without cost to them, which is no small feature to be considered.

A breeder that can not be satisfied in this offering and quality and blood need not look any further, as he will fail to be satisfied anywhere.

Gossip About Stock.

C. N. Garver & Son, Abilene, Kans., will hold a great bred sow sale of Poland-Chinas on February 18, 1903. Watch out for their big sale advertisement in the Kansas Farmer and write them for catalogue.

On February 13, Frank Hoover, Columbus, Kans., will hold a public sale of Poland-Chinas, the full announcement of which will appear later. Bear the date and location in mind and remember the reputation that Frank Hoover has already won as a breeder of choice Poland-Chinas.

We have received two handsome booklets in which a great many horse and cattle owners would doubtless be interested. They contain a practical discussion of the disease of cattle known as lumpy jaw, also fluke, ringbone, splint, curb, sweeney, etc., recommending a form of treatment in each instance. These booklets are published by Fleming Bros., chemists, Union Stock Yards, Chicago, Ill., who will mail copies free to readers of this paper who write, mentioning the cases they wish to treat.

R. J. Burgan, of Ford, Kans., was building up in Western Kansas, one of the finest herds of double Standard Polled Durham cattle in the State. He had, at great expense, secured some of the best foundation stock obtainable and was an active member of the Kansas Improved Stock-Breeders' Association, but unfortunately for this new industry he died on December 4, and his sister, Nellie Burgan, desires to close out the entire herd. They have several Double Standard Polled Durhams and several registered Shorthorn cows and heifers. They also have a herd of 150 native cows, bred to Double Standard bulls. They are very desirous of closing out at private sale.

The Campbell system of subsoil culture has evidently come to stay. The only manufacturer of the implement most needed in this method of culture in the State of Kansas is the Topeka Foundry. The demand upon this institution for this subsurface packer has been so great that the proprietor has found it impossible to secure the necessary scrap iron and hence is obliged to advertise for it, as may be seen in his card on page 104. He wants ten car loads of scrap iron to mix with the pig in order to give the packer wheels the necessary toughness. For this scrap iron he will pay the highest market price and it may be shipped him from any part of the State. Write the Topeka Foundry and tell them how much iron you can spare and ask for prices.

The Missouri Valley Horticultural Society held a meeting and banquet at the Coates House in Kansas City, on Saturday last, which was a delightful occasion. About one hundred covers were laid and among the guests present were many of the officers of the Missouri State Horticultural Society and a part of those from the Kansas Society. Prof. Albert Dickens, of the State Agricultural College, was among the guests. While we acknowledge a cordial invitation to be present and participate it was found necessary to decline because of previous engagements, however, we have made arrangements with a lady horticulturist, who received her training at the State Agricultural College, to give us a report of this interesting meeting.

We desire to direct special attention to the Rome Park herd of Poland-Chinas and Berkshires bred and owned by T. A. Hubbard, of Rome, Sumner County. Mr. Hubbard has been in attendance at the State Board of Agriculture and stock breeders' meetings the past week, and to a Kansas Farmer man stated that he had on hand the best lot of large, well-finished Poland-Chinas that he has ever bred. He is quite enthusiastic about the fortunate luck in producing the sale stuff which he now offers. Anyone desiring some bred sows, gilts or boars to head herds should write at once. Mr. Hubbard is now treasurer-elect of Sumner County and desires to materially reduce his herd, which will give breeders an opportunity to get some very select Poland-Chinas, as well as Berkshires. Write him at once.

One of the most important events in the Poland-China world of recent date has been the combination of the champion herd belonging to the late R. S. Cook with the Elm Beach herd at Wichita, Kans. Under the management of Mr. C. M. Irwin, this great combination herd has added materially to its past reputation and is now selling Poland-Chinas of the finest breeding and quality. Mr. Irwin reports sixty head sold for breeding purposes within the last sixty days. We had hoped to show a picture of Sir Chas. Corwin 330950, who stands at the head of this herd in this week's issue of the Kansas Farmer but delay in the mails prevented it and we can only call attention to the handsome display advertisement found on page 105. Later on we shall have some history of the breeding of this now famous herd to report.

George F. Thompson, of the U. S. Department of Agriculture, who is a Kansas man, spoke at the National Live-Stock Convention on "Our New Markets for Live Stock," in first complimenting the stockmen in the possession of the bureau of animal industry, not only as a safeguard against diseases, but as a power in removing the obstacles and extending our live-stock and meat trades with the entire world. Exports of live stock last year exceeded 1901 by \$7,000,000. England, France and Germany were our best customers, taking three-fifths of all our exports, amounting to \$168,000,000. All breeders should look carefully to the reputation

If You Wear a Watch In a Factory or Shop

you should have a Jas. Boss Stiffened Gold Case in order to protect the works and lessen the cost of repairs. The Boss Case is made of two layers of solid gold with a layer of stiffening metal between. It is better than a solid gold case because it is stronger and so close-fitting as to keep out gas, smoke, dust and dampness.

JAS. BOSS Stiffened GOLD Watch Cases

are recognized as the standard the world over, and sold as such by all jewelers. The Boss is the only stiffened case in use long enough to prove by actual wear that they will outlast the 25-year guarantee. There is none "just as good." The Keystone trademark here shown is stamped in each Boss case.

Consult the jeweler. Write us for booklet.

THE KEYSTONE WATCH CASE CO., Philadelphia.

of their cattle sent to Mexico or any other country and send nothing that would be a discredit to our home production of pure-bred cattle, as Argentine must be considered as a competitor in that line in the near future.

At a called meeting of the representatives of various live-stock breeds in the live-stock exchange building, Kansas City, on January 14, it was practically decided to include sheep and draft and coach horses in the next American Royal. This information will be received with satisfaction by Western breeders and will serve only to increase the importance of the already superb American Royal. Among those present at the meeting as breed representatives were the following: Hereford men, G. R. Thomas and C. A. Stannard; Shorthorns, C. E. Leonard, Dr. Woolf, and J. J. Wornall; Angus, Geo. Stevenson, Jr., and W. C. McGavock; Galloways, R. W. Park; sheep, F. W. Harding; Berkshire swine, C. A. Stannard; Duroc Jerseys, R. J. Evans; Chester-Whites, L. L. Frost; Poland-Chinas, H. M. Kirkpatrick (Standard association); Angora goats, W. McIntyre and J. M. Stewart.

Ziegler Bros., McCune, Kans., held a sale of one hundred head of Poland-China swine at Parsons, Kans., on January 17. The one hundred head brought \$3,400, an average of \$34. A litter of seven pigs sired by the \$2,500 Corrector, out of Lady Perfect I Know, three of which brought the top price of the sale, \$48 per head. Ziegler Bros. still have four of this litter for sale. One pig from a litter of six by Corrected out of No Name Model brought \$46. One of a litter farrowed by Corrected out of Sunshine Perfection brought \$37, and the other five were retained for future sales. The top price in a bunch of twenty-five pigs sired by Western Wilkes was \$50. The top of a lot of twenty-one sows sired by Crawford County Chief brought \$65. Crawford County Chief 23176 S. was sold to A. B. Mull of Iowa, Kans., for \$83. This boar has a great reputation as a breeder and is considered the favorite herd header of southeastern Kansas. Ziegler Bros. could not keep him longer in their herd and our friend Mull is particularly fortunate in securing him for the price named. A gilt sired by Western Wilkes, out of Fashion Beauty 2d, went to Iowa for \$50. Breeders were present from Indian Territory, Missouri, Iowa, and Kansas. This was a very successful sale of good stock.

On Saturday, February 7, 1903, at the live stock pavilion, Kansas City, will be held a great combination sale of Poland-China bred sows. There will be fifty head in this sale from the herds of T. N. Langan & Co., Clifton, Ill.; W. H. Mart, Ogdon, Ill.; and J. W. Wampler, Brazillton, Kans. These sows are bred to champions at the Chicago International for 1901 and 1902, at the Ohio State Fair, and at the Illinois State Fair. The sows are among the best in America sired by the best boars and bred to the champions. This will be a sale that it will pay to see. The manager of this sale writes that their last combination sale on January 8, at Champaign, Ill., thirty sows bred to Keep On averaged \$147.91. Langan & Co.'s twenty head averaged \$169.71. We mention these facts merely to show the quality of stock that will be offered in the Kansas City sale, as well as to show the appreciation in which they are held by the buyers who attended the Champaign, Ill., sale. The advertising card on page 105 explains the breeding that will here be offered, and a catalogue giving detailed information may be had by addressing J. V. Cotta, Clifton, Ill. It will pay to have this catalogue whether you attend the sale or not. Mention the Kansas Farmer and write them.

The Cattleman's Convention, which meets in Oklahoma City on February 10, 11, and 12, 1903, will also be the occasion for a series of pure-bred sales. On February 10, 11, and 12, Mr. Geo. Bothwell, of Nettleton, Mo., Mr. J. F. Stodder, of Burden, Kans., Gudgeon & Simpson, Independence, Mo., Scott & March, Belton, Mo., Mrs. C. S. Cross, Emporia, Kans., W. N. Shellenbarger, Oklahoma City, O. T., and C. A. Stannard, Emporia, Kans., will sell 140 head of registered Shorthorn and Hereford cattle. The draft will include about seventy young bulls from 12 to 24 months of age, and the balance of them will be cows and heifers. The of-

fering will undoubtedly be by far the best that has ever been made in the Territory, for two reasons: first, these people would not come before the Cattleman's Convention with anything but first-class stuff; second, all of them have the best of reputations to sustain, and so they could not offer to the people of Oklahoma anything but first-class cattle. It will indeed be a notable event for Oklahoma, and we trust that the people of that prosperous Territory will not be slow in taking advantage of the situation. It is to be noticed that steers raised from such bulls as in this offering, are now bringing in Kansas City 5 cents per pound or better, while the other kind bring around 3 to 4 cents. The difference in the cost of feeding is nothing, while the price realized in the market is from one-third to one-half better. We trust especially that our Oklahoma, Indian Territory, Kansas and Texas readers will think this matter over earnestly between now and sale day, and be prepared to take advantage of the occasion. There will be show bulls and show heifers, cows with calves by side, heifers safe in calf to some of the best bulls in the world, both imported and home raised. Everything will be in calf that is old enough to breed. It will be our endeavor to give some particulars of some of these good cattle in a future issue. It is understood that the railroads have granted one fare for the round trip to Oklahoma City, during these sales. Catalogues of the Shorthorns to be sold may be had by writing J. F. Stodder, Burden, Kans.; for Herefords, C. A. Stannard, Emporia, Kans.

The January combination sale of Herefords to be held at Kansas City, January 26 and 27, 1903, will certainly be noted for the quality of the cattle offered. The bull offering of J. K. Risler, Butler, Mo., is worthy of special attention, the Beau Donalds are true to their type and breeding—large, broad-backed, and with Beau Donald quarters. Two of them, Wild Eyes 14483 and Elmore 137860 are good enough to head pure-bred herds, having plenty of size, bone and finish. While this is the first consignment from Noble Bros., Otterville, Ill., in a public sale, they have four bulls that would do excellent on the range or any herd. Three of them are sired by Anxiety Wilton 62672, the other by Sir Garfield 929228, a low-down, blocky bull and a grandson of Garfield 7015. T. J. Rowe & Sons, Rowena, Mo., write: "The prospective buyer has only to look at the pedigrees to be convinced of the breeding of my consignment, two of them sired by our herd-bull, Wabash, he by Cherry Ben, the sire of the 10,000 bull, Crusader. They are in good condition and will do good service with a farm herd or ranch cows." D. L. Taylor, Sawyer, Kans., says: "Three of the sows have calves at foot by Sunflower Chief 110942, another one is in calf by same bull. The balance of them are in calf by Preordination 71783. Both of these bulls are fine animals and in excellent condition." J. R. Noble, Otterville, is contributing four bulls and four heifers, and are all of the blocky kind and sired by Sir Garfield 929228, a grandson of Garfield 7015. Chas. Specht, Rosemont, Kans., will contribute Hesiod Shadeland, a coming 2-year-old bull of good size and quality. Hesiod 2d is his granddam and Shadeland Dean his grandsire; he was by Hesiod Oakwood 3d; Grove Bismark, a twin, a blocky fellow, a grandson of Anxiety 4th; also, two splendid young cows as well bred as the bulls. G. W. Ross, Waverly, Kans., will have three bulls in the ring with a fine strain of blood in them, Prince Albert, Monarch 2d, Archibald 1st, and Don Carlos being their ancestors. A. E. Metsker, Lone Star, Kans., says: "My consignment will consist of the kind that will make money for the purchaser, being young and vigorous and not overfed. The bull's dam is a granddaughter of Lord Wilton and his sire, Expansion 99159, is a double Anxiety 4th. The heifer is a 2-year-old sired by a son of Scott & March's good breeding bull, Monitor, and her dam comes from the old Cherry strain. She is bred to Expansion 99159." All the other contributors are offering their best cattle at this sale. Note date of sale and plan to attend. For catalogues address, C. R. Thomas, Secy., Chicago, Ill.

When writing advertisers, please mention this paper.

Talk No. 20.

To Parents.

There is no more injurious practice for a child than that of holding reading close to the face. The strain necessary to focus the eyes for so close an object injures the muscles and throws them out of harmony. The more a child can be out of doors looking at distant objects, the better for his eyes. He should always be encouraged to hold his books and playthings at least 10 or 12 inches away. If he can not see so well at that distance, do not punish him, but have his eyes carefully examined. He needs glasses, and the sooner they are worn the better it will be for him. If your child shows the slightest tendency to cross his eyes, do not put off the matter a moment. Glasses will cure him at first, but if you wait too long nothing but an operation will do him any good.

My Exclusive Attention is Given to Fitting Glasses.

DR. C. BENNETT,
Registered Optician.

730 Kansas Ave. : Established 1879

REX CONDITIONER

Endorsed by State Veterinarians. Every Package Guaranteed

Especially for "Out of Condition," wormy, or "run down" stock of all kinds. It's made upon honor. Accept no substitutes. Farmers, Stockmen, Get It, Try It, and you will stay by it. 25-cent, 50-cent, 75-cent and \$3.00 packages. We are also exclusive manufacturers of Rex Lice and Mite Killer, Rex Poultry Food, Rex Hog Remedy, and Rex Stock Food.

REX STOCK FOOD CO., OMAHA, NEBRASKA.

Publishers' Paragraphs.

The past few years has seen a growing demand for a small, portable power that could be operated by the farm hand without danger; and to meet this demand the Weber Gas and Gasoline Engine Co., of Kansas City, Mo., have designed and manufactured a two and a half horsepower gasoline engine called the "Weber Junior." This engine is mounted on a wood base, is self-contained and so light that it can be readily moved about as required. It can be attached to any pump or belted to a churn, cream separator, grinder, wood-saw or other machinery. Thousands of these engines are in daily use. The coming year will see an advanced call for them. They require no engineer; run on a very small percentage of fuel for the work done, and can be used anywhere and at any time under varying climatic conditions and must certainly appeal to the farmer who finds it more necessary than ever before to reduce expenses in the performance of labor.

Profitable crops can only be grown from good, reliable seeds. Poor seeds are dear at any price. Some farmers and gardeners have found this out by very costly experience. It is simply a waste of time and land to plant any but "the best seeds that grow." Seeds should have something else besides "cheapness" to recommend them. They should have vigor, growth, productiveness, thought and money-making qualities bred into them. This combination of qualities requires skill, knowledge, patience, care and proper soil conditions in order to produce seeds that assure money-making crops. H. W. Buckbee, of Rockford Seed Farms, Rockford, Ill., has spent thirty-seven years in growing his famous seeds. He gives all his seed crops his personal supervision and care. Nothing but perfect plants are saved for seed. Buckbee's seeds are tested seeds. They are the best to be obtained at any price. This year his seed stock is especially fine. He has celebrated the event by issuing an especially fine seed catalogue and buyer's guide of choice information. The catalogue, which is free for the asking, has an elaborate lithographed cover painted from nature, is well as several fine colored inserts in the highest style of the lithographer's art. It is a book that will be preserved by any one. We would advise our readers to send Buckbee a trial order and to get one of his magnificent books. See his advertisement elsewhere in this issue, and be sure and write quick.

Old Approved Remedies.

One disadvantage of this age is that no one can be possessed of expert knowledge in all of its branches. The tendency of the time is all towards specializing. Division of duties, class work, assigning to each man one particular work, secures the cultivation of the special talents and begets expert service. To this practice is to be attributed very largely the rapid growth of manufacturing and other trade concerns. Many farmers are disposed to depend upon others for much service which with a little attention they could render themselves. Much valuable time is wasted in "going to the shop," getting the services of a veterinary, etc., which might be saved. Take the matter of the sick horse, for example. The horse being something upon which the farmer so largely depends and has to do with every day in the year, it is but prudent that he should be well posted on at least the common ailments and injuries to which his kind the subject, and have ready at all times approved means and methods of treatment. With a thorough knowledge of the animal to begin with, which may be readily acquired without expense in spare moments, a farmer may well act as his own veterinary in all ordinary cases. Certain standard remedies, which have stood the test of time, and which everybody knows to be valuable, such as Kendall's Spavin Cure, should be always on hand. To descend from generalities to particulars, the mention of Kendall's Spavin Cure suggests that it is now and has been for a long series of years a standard remedy upon the farm. If any word were necessary in its favor, it could not be too highly recommended. Its compounder thoroughly understood the horse and horse diseases. He had original ability to bring together in proper proportions just such elements as were peculiarly adapted to the necessities of the subject, and it is made today of the same ingredients first used by Dr. Kendall. Many dealers have urged the company to cheapen the formula to afford them a larger profit, but it is to the credit of the Kendall company that they have never yielded to any such pressure. If it had not been maintained as an article of merit, it could never have acquired the prestige it has. Its popularity began at home in the State of Vermont many years ago and has spread until it is not limited to any locality or land. No mistake would be made if every reader would determine to keep this one standard remedy always in readiness for an emergency. Write the Dr. B. J. Kendall Company at Enosburg Fall, Vt., for a copy of their book on "The Horse and His Diseases," which will be sent free if you mention this paper.

The lack of knowledge on so vital a subject as that of heart disease is most surprising. It is now many years since the investigations of leading heart specialists led them to announce that weak hearts are as common as weak stomachs, eyes, kidneys, lungs, etc.; that statistics prepared by the leading medical societies of the world prove that one person in every four has a weak heart and that heart disease is the most common cause of sudden death.

One might have a weak heart for many years and not know it. The symptoms are baffling, being frequently mistaken for those of the affection of some other organ, such as lungs, stomach, kidneys, liver, bowels, etc.

A weak heart never cures itself, but, unless promptly and carefully treated, it will surely though slowly undermine the general health as well as become chronically deranged.

Fainting spells, shortness of breath, fluttering or palpitation of the heart, sudden

starting in sleep, morbid fears, dreaming, indicate a weak heart and should be treated at once.

A weak heart, besides retarding the circulation, impairing digestion and impoverishing the blood is unable to overcome the laws of gravity. This results in the watery portion of the blood oozing out of the vessels and settling in the lower parts of the blood and is called dropsy. Dropsy can be cured. Heart disease can be cured. You can stimulate the digestion, purify and enrich the blood, strengthen and regulate the heart's action, improve the circulation, invigorate the nervous system and prolong life by using the great heart and blood tonic, Dr. Miles' New Heart Cure.

By its stimulating effects on the digestive organs it assists assimilation of the food, producing rich, red highly vitalized blood. It is the essence of the elements and principles that feed, nourish and reconstruct. Dr. Miles' Remedies are sold by all druggists on a positive guarantee that first bottle benefits or money refunded. Book on Heart Disease free.

Dr. Miles Medical Co., Elkhart, Ind.

THE MARKETS.

Kansas City Live Stock and Grain Markets.

Kansas City, Mo., January 19, 1903.

Another break featured the cattle market here and throughout the entire country last week. Supplies at the chief markets were liberal and included a heavy proportion of fat beefs. Killers wanted the stock but were enabled to hammer the market on account of the big runs. Heavy finished steers declined the most, the loss on them amounting to 25¢@35¢. Medium weight beefs with fat broke no more than 20¢@25¢. Prices of fat cattle now average lower than at any time for the past twelve years. The top price for the week was \$5.30, given on Monday, and towards the end of the week the best cattle were selling near the \$5 mark. Plain finished beefs range from \$4.25@4.50 and the best of the receipts sell at \$4.75@5.25. Commission men are not free with advice either as to selling their shippers to bring in or hold back the cattle now on feed, as the outlook is for no higher prices for the next few weeks at least, and still there is a hope prevalent that the low point of the season has been reached. Local traders are at sea over the future market and the question of shipping will have to be decided by the farmer himself. Veal calves are in extra demand and are selling \$1 per cwt. higher than a year ago for the very best kinds. Tops are commanding \$6.50@7.25, but a big rush of such stock to market would soon see veals decline in sympathy with the low prices of all other kinds of cattle. The stocker market opened stiff on Monday but liberal supplies later caused a break in prices. Good stockers are worth \$3.50@4.25 and a pretty nice set of feeding steers can be bought for \$3.75@4.10. Canning cows are fair sale at \$2@2.50 for the bulk of the medium kinds.

Hogs advanced another 10¢@15¢ last week owing to continued strength in the pork market and light runs of swine at all the chief receiving points. Local receipts were right at 44,000 head, an increase of 6,000 over the preceding week, but a loss of 20,300 head from a year ago. The proportion of desirable corned heavies was larger than usual and the average weight showed a substantial increase over last year. Packers took kindly to pigs and lights when the fancy pleased them. Pigs ranged mostly around \$5.00@6.25. Hogs closed for the week with the top at \$6.75, a record mark for the season and within sight of the coveted \$7 goal of the local salesmen. The bulk of the best hogs brought \$6.50@6.60. A continuation of light receipts here and at Chicago this week may result in bringing \$7 tops but most of the traders look for better supplies and a break in the market. On Monday of this week a decline was had, tops selling down to \$6.60.

The mutton supply showed an enlargement last week, arrivals aggregating 17,300 head, an increase of 7,000 over the corresponding days last year. The movement of Kansas-fed stock still continued liberal and formed the bulk of the supply. The expected advent of Colorado sheep did not materialize. Offerings ran largely to muttons. Trade started off 10¢@15¢ higher, but eased up in spots and closed strong with the close of the preceding week. Yearlings ranged from \$4.60@5; ewes from \$3.50@4.35, the latter price for choice natives. Lambs sold at \$6, the highest point reached this winter. The beginning of the Colorado movement within the next week or two may cause a break in the market, but traders look for no slump of consequence to occur.

Horses sold mean during the week, drafts declining \$10@20 per head. The strength manifested by the market the previous week caused a heavy supply to come here the past six days and the market could not stand the strain and maintain steady prices. If receipts

..Acme Barred Plymouth Rocks..



RECORD UNEQUALLED IN THE WEST.

At Kansas City, Mo., Dec. 6-8, 1901
W. S. RUSSELL, Judge.

1st, tie 3d Ckl. score to 93, 48 in class
1, 2, 3, 4 Pul. score to 93½, 84 in class
1st, 2d Pens. score to 186, 16 in class

MEDAL FOR HIGHEST SCORE IN THE AMERICAN CLASS.

Fine Stock a Specialty.

....The Acme Strain stands unchallenged in the West. They soar to the Zenith of Victory again this year....

AT THE GREAT KANSAS STATE AGRICULTURAL COLLEGE SHOW, DECEMBER 4 TO 8, 1902

the classic event of the Mid West we demonstrate again what the wonderful shape, size, and deep parallel barring of the Acmes can do. In a class of 125 Barred Plymouth Rocks coming from "everywhere," we won:

1st on ckl., score 93, tie 2d 92¾, 3d 92¼, 4th 92; 1st, 2d, and 4th pullets, 1st, 2d, 3d, and 4th hens, 1st and 2d breeding pens, 2d cock—best show bird in the moult. Special largest display American class over 90 points, special largest display any and all varieties over 90 points, special highest scoring pen in American class, special three heaviest Plymouth Rock males, making almost a clean sweep in the hottest company we have met in years. They do this for us and they will do it for you. The only first we lost was where brother met brother. We have good breeding cockerels at \$2, we have good breeding pullets at \$1; better ones for a little more money; choice scored stock at "live and help to live prices."

Buy an Acme and you Buy the Best. Correspondence a Pleasure.

ACME POULTRY YARDS

ESTABLISHED 1889. MANHATTAN, KANS.



Barred Plymouth Rock Specialist.

HOME OF "ACME," SCORE 93 BY BRIDGE

Grand sire of "Acme Zenith," 93 and 93½, Russell and Rhodes; "Acme Prince," 93½ by Rhodes; "Acme Fame," 93 by Rhodes; and many others 92 to 92½; Year 1902.



NEVER EQUALLED.

Kansas State Show, Topeka, January 6-11, 1902.

C. H. RHODES, Judge.

Won 1, 2, 3, 4 CockerelsScore to 93½
Won 1, 2, 3, 5 Pullets.....Score to 93½
Won 1, 2 and 3 Hens.....Score to 93
Won 1 and 5 Pens.....Score to 187
\$20 Special for Largest Number of B. P. Rocks over 90 points.
\$20 Second Grand Special for any variety scoring over 90 points.

Eggs in Season.

\$20 A WEEK Straight salary and expense to men with rig to introduce our Poultry Mixture in country; year's contract; weekly pay. Address, with stamp, Monarch Mfg. Co., Box 1119, Springfield, Ill.

\$9

DAILY selling the Only Easy Pump Governor. Makes all pumps work one-half easier, wind or hand power. Exclusive territory to agents. Chicago Pump Gov. & Mach. Co., 20 Adams St., Chicago, Ill.

Are You Going to BUILD a MILL?

30 years experience in building flour mills; all capacities from 25 bbls upward.

Modern system for the economical production of flour. Estimates furnished. Send for catalogue describing modern machinery of the best type.

We manufacture and carry in stock machines and supplies required for mills, corn meal and rye flour.

The best is the one that runs the longest. THE J. B. EHRS, MFG. CO. General Mill Builders of the Empire, Kan.

LOUDEN HAY-SLING



IT CLEANS THE RACK

Handles any kind of hay, bound grain, straw, corn-fodder or other forage. Works with any hay-carrier. The largest and best line of hay tools for either field or barn use. The originators of Flexible Barn Door Hangers and have the Best on Earth. A full line of hardware specialties. Save money by writing for catalogue. Address

LOUDEN MACHINERY CO., Dept. D, FAIRFIELD, IOWA.

are not excessive again this week the outlook calls for steady values.

The poultry market eased off a trifle last week. Warmer weather occasioned a slack demand and more liberal marketings from the country districts. Towards the end of the week, however, supplies became more restricted and a stronger basis of values was maintained. Eggs weakened at the finish of the week. Commission men are advising country customers to ship eggs right along as the outlook is not so bright. The general feeling throughout the market is for a break in the present schedule of prices. Best candled eggs are worth 21¢; seconds 15¢; hens 9¢, and holding firm; springs 10¢; roosters 20¢@25¢ each; turkeys 11¢@13¢; rabbits 50¢@85¢ per dozen.

A better export demand and a firmer tone to the market in the East resulted in wheat selling strong here last week. Corn opened firm but broke towards the close of the week, and quit about steady. Oats were a trifle better. Kansas City No. 2 wheat is quoted at 66¢@69¢; No. 4, 58¢@60¢; No. 2 corn, 39¢@40¢; No. 4, 33¢@35¢; No. 2 oats 35¢@35½¢; No. 4, 33¢@34¢; rye 44¢@45¢; bran 72¢@73¢ per cwt. sacked; flax higher at \$1.10; timothy and clover hay \$8 @13 a ton; prairie \$4.50@9, alfalfa \$8@12.

H. A. POWELL.

South St. Joseph Live Stock Markets. Lawrence Seed Markets.

Lawrence, Kans., January 19.

We give you to-day's buying prices in our market. Outside prices are for best grades:

Red clover.....\$9.00@10.00
Alfalfa.....8.00@11.00
Timothy.....8.00@8.25
English blue-grass.....2.50@3.50
Millet......75@1.00
Cane-seed......75@.85
Kafir-corn......50@.60

F. BARTELDES & CO.

Everything under the Sun worth knowing shines forth in

COMMERCIAL POULTRY

(The Poultry Paper That is New)

1 YEAR 24 TIMES 50 CENTS

Send us name and full address on a postal and see how good it is. Free if you mention this paper.

DRAPER PUBLISHING COMPANY
Dept. 0-28 Chicago, Ill.

N. B.—You can make good money representing the "DRAPER TRI-O." Write today for terms. Our great prize contest is on, and you will be just in time if you write quick.

READING TIME

is here again, with its long evenings.

The Twentieth Century Farmer

is chock full of the ideas of the brainiest men in the country—well known men, selected as writers, because they know how to make farming pay.

One idea may be worth a hundred dollars to you.

24 to 48 pages, weekly. \$1.00 per year.

Write for Free Sample Copy and Booklet.

TWENTIETH CENTURY FARMER,
1735 Farnam St. Omaha, Neb.

Agents wanted at every P.O.

CANCER CURED

With Soothing Ba'my Oils



MR. M. YANT, OF CRETE, NEB.

No need of cutting off a woman's breast or a man's cheek or nose in a vain attempt to cure cancer. No use of applying burning plasters to the flesh or torturing those already weak from suffering. Thousands of persons successfully treated by this mild method. Cancer tumor, catarrh, ugly ulcers, piles, fistula, and all skin and blood diseases. Write to-day for free illustrated book. Address DR. BYE, Kansas City, Mo.

TUESDAY MORNING SESSION.

(Continued from page 95.)

It stands up rigid, except the blades lap over. I believe this plant is one that is coming to fill out and lengthen our prairie grasses. I have sowed it in my alfalfa-field in wet places, where I feared the water would drown out the alfalfa. I sowed these wet places with English blue-grass and it has taken well and given a remarkable growth.

A member: Which is better, the English blue-grass or the red-top, on wet land?

Col. Robison: The red-top will bear more water than the English blue-grass, but it does not produce near the amount of feed nor is it nearly so rich. The red-top does not last like the English blue-grass.

Mr. Babcock: I would like to ask if you would advise one sowing alfalfa for hay for meadow, to mix English blue-grass with it?

Col. Robison: No, sir; because twenty-eight to thirty-two days makes a crop of alfalfa, while the time to make much of a crop of English blue-grass is longer than that, and you wouldn't get the two in their perfection.

A member: Is spring sowing of the meadow fescue desirable?

Col. Robison: The majority of my sowing has been in the spring. I understood, when I first sowed it, that it was necessary to sow in the spring, but the general practice east of us is to sow in the fall, and I believe now that the fall sowing is preferable to the spring sowing.

A member: Don't you find in your neighborhood that the meadow fescue gives different results on different kinds of soils?

Col. Robison: Oh, yes, it does that, but I think there is no plant we have that comes any nearer covering all kinds of soil than does meadow fescue.

A member: There is one point that has not been touched, and that is the use of meadow fescue in renovating worn-out pastures.

Col. Robison: I have seen it in Kentucky and Tennessee used in ground that never was plowed. If you can get the seed into the ground in any way—and the disk-drills are the best tools I know of for putting it in—you will succeed. Every seed that gets covered will produce a plant. It is not a great renovator of soil. It does not improve the soil like clover does, but, still, like timothy, it freshens it up some.

General Discussion on the Sheep Industry for Kansas.

President Harrington: There is no paper on this topic, but it is left open for general discussion. We will hear from Mr. Westbrook first:

Mr. Westbrook: I have had some experience with the sheep, and my experience has been very satisfactory, both to the sheep and myself. I have made a respectable living and give the sheep credit for most of it. I bought a flock of sheep when I was 19 or 20 years old—that is more than fifty years ago—and there has not been a minute of the time since that I have not owned sheep. My flock last year raised a lamb for every ewe, and they averaged over seventeen pounds of wool as well. Every ewe that was over a year had a lamb. I don't know of any place I have ever traveled that has a better climate and where sheep do better than in the State of Kansas. There are, of course, exceptions and drawbacks. We are bothered with wolves and dogs some, but there is not a breeder in this house that would keep horses or cattle much more than we keep sheep if they had every night to corral them. Mine run out for months at a time without any damage, and then a wolf will come and get perhaps one of the smaller ones. They always pick out the smallest or youngest. I have one neighbor who has taught his sheep to eat cockle-burrs. Sheep will eat nearly any of the weeds that grow in Kansas. I would advise all farmers to keep a few sheep. They keep the pastures clean and nice. I don't know of any stock but what will do just as well, and even better, if there are a few sheep in the pasture. I think my stock do better because of the sheep. Stick to the sheep and take the same care of them night and day and give them the same careful attention you do your other stock, and my judgment is you will get ten times as much profit out of them.

J. A. Peck: Sheep can be taught to eat cockle-burrs by being confined somewhat, but it is not necessary to starve them to teach them to eat them. That is an erroneous idea, according to my observation and experience.

Col. J. W. Robison: The sheep industry has been tried in Kansas pretty

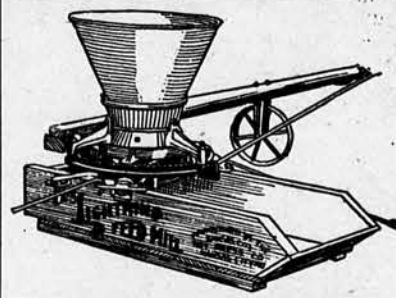
thoroughly. A few years ago there were 100,000 sheep in Butler County. There are about 2,000 to-day. The cattle industry crowded the sheep out in a commercial way. We know there is profit in the sheep where things are favorable, but I think there is no animal that is so partial to conditions. That paper on the cow last night was very fine, but there are a few sentiments in that paper that improved stock breeders ought not to endorse. We as improved stock breeders ought not to endorse a paper or a part of a paper that says you should go into a long-established breed, that the English and Americans have been working a hundred years fixing a type, and cross it with another breed and make a mongrel, as it does. Do Bates and Booth and these men know no better about breeding than to spend their lifetime in producing what a farmer, for his purpose, must go and cross another strain of animal on? I don't believe the majority of the improved stock breeders will sanction that. It may be that the Red Poll has got superior milking qualities. That quality has been developed. But the moment you take that type that makes the greatest production of milk, you have vitiated the type of the Red Poll for beef purposes, and are starting to make a new breed. Life is too short for improved stock breeders to undertake to make new breeds when we have so many beef breeds and so many better breeds. There surely is no man in this house that will say that for dairy purposes a Red Poll and Shorthorn cross is superior to a Holstein or a Jersey. Keep your stock pure. What sane man would say cross the Shetland pony and the Percheron or Clyde? It is little less proper to say cross your milk breed and your beef breeds.

E. W. Melville: The fact of the matter is this: Take your cow that gives your big profit, and put the value of that same cow into sheep, and the sheep will give you more clear profit in a year than any cow you have in your herd. The reason the sheep are frowned down and laughed at by the average farmer is simply because the average farmer partakes more or less of the nature of the animal that he deals most in, and it is pretty hard for those of us that have dealt in hogs for a good many years to ever understand the sheep. There is too much hog about us. On my farm the sheep has paid more net profit than any animal that ever came on the place. The reason the sheep decreased in the State of Kansas and elsewhere is because of the dog increase. The sheep decreases in proportion as the dog increases, and if we were to get legislators with backbone enough to face the dog-man and make laws that would protect the sheep, Kansas would be more of a sheep State than she is. There is not an animal that is so subject to the ravages of the dogs as the sheep. Your cattle are perfectly safe from the dog that runs around at night, and so are your horses; but your sheep are not. If your bull or your horse or your cows gets on my place and destroys anything, I can get hold of that animal and can get track of it, but your cur dog can travel five or six or more miles and destroy \$100 worth of sheep for me in half an hour, and I can't find a trace of the dog that did the damage. I am unable to tell, from any source, where the injury has come from. Your dog runs loose, but the law compels you to keep your other animals where you can control them. I have allowed myself two dollars a year for keeping my sheep, and never have received less than fifteen per cent on my money and from that up to fifty-five per cent. You can't go into the sheep business on a large scale—that is, the average farmer can't. A great many who have gone into the sheep industry and failed have themselves to blame, because they don't know anything about the sheep and attempt to handle too many at first. A few sheep well taken care of on every farm will be profitable. Cattle will do better in the pasture when there are sheep, because the sheep eat the weeds and the weed are not there to destroy the moisture. The sheep will enrich the soil and the pasture will continually grow richer, and in the course of years it will support more live stock. They will give you three crops a year—mutton, wool and lamb. They will keep up almost as continuous an income as the dairy, and while you do have to get up once in a while in the cold winter mornings to take care of your lambs, you don't have to do it as a regular thing.

G. W. Glick: I notice that the dairymen try to show the undesirable points in the sheep business, and that the

sheepmen try to show the undesirable points in the dairy business, and the conditions of both, as represented to an outsider, are that neither of them is a very profitable business. I disagree with that proposition. I think a man can carry on a dairy business and make money at it, if he has a taste or inclination for that kind of business, and can select his cows or have the courage to sell the unprofitable cows when he finds out they are unprofitable. The only hardship about the dairy business is that it compels your family or your hired men to work on Sunday the same as any other day in the week. That is something we don't like to do, and it is a hardship that is enforced upon every man who runs a dairy. The sheep business is a profitable business. In Ohio my father raised sheep all the time. He made money out of them. He didn't pay his hired man who had to take care of them, and I suppose there was profit to him on that point. I never got any wages for taking care of his sheep, but that is all right. I have been in the sheep business in Kansas; I have had a few sheep, I have had a hundred sheep, and I have had a thousand sheep. I don't believe it is profitable for Kansas men to try to raise sheep to any great extent, and my reasons for it are these: The dog reason is one; the necessity for extensive fences is another; the necessity for putting your sheep up at night is another; and when the wool business is not as profitable as it ought to be—it is not as profitable as it could be if you didn't have as many politicians who are talking about the tariff on wool and the protection of wool. And why? We have talked about a protective tariff upon wool to keep out the wool of other countries, and while you are doing that you politicians were using you to aid them in a certain system of legislation, while at the same time they were building up shoddy mills in this country, destroying the value of your wool! (Laughter and applause.) In Ohio they have seventy shoddy mills that turn out about 70,000,000 pounds of shoddy every year, and it displaces the wool that you farmers raise and think you don't have price enough for. The dairymen are sharper than the sheepmen. When oleomargarine was thrown upon the country, the dairymen met it like men. They went against it, and asked for legislation to protect them against it—and they got it! Do the sheep men do that? No! They have permitted the howl for protective tariff in Ohio to protect them against foreign wool to blind them to their real danger, and they have had built up right in the State of Ohio seventy shoddy mills that furnish more shoddy than all the sheep in Ohio, Illinois, Indiana and Texas all combined furnish in wool! (Applause.) That is the reason your price of wool is kept down. When the wool growers arise to a position of courage and manhood that they ought to and demand protection that they ought to have, then they will have protection and get the prices for wool they ought to get. Nothing has kept down and destroyed the value and the price of wool like the manufacture of shoddy in this country, and the rags, with their disease-bearing germs, that are shipped from all over the world to the United States and sold to the shoddy mills to make shoddy that goes all over America is the worst feature of it, almost. An investigation recently showed that in the manufacture of certain cloth 200 pounds of wool and 800 pounds of shoddy went into it. In another class of cloth was 600 pounds of wool and 400 pounds of shoddy. It is almost impossible, now, to get a piece of cloth that is not part shoddy. Don't understand that I am opposed to a tariff on wool, for I am not. I am in favor of protecting the farming industry in this country by every possible and reasonable means, with justice to ourselves and justice to others; but I say that

Lightning Feed Mill



Greatest Capacity, Lightest Draft, Quintraple Gear, Roller Movement.
KANSAS CITY HAY PRESS CO.,
120 Mill Street, Kansas City, Mo.

all the time the sheep men have been clamoring for this tariff to protect them against foreign wool, they have built up a shoddy industry in our country that has damaged them ten times more than all the wool that ever was imported into this country, and it will continue to do it until the sheep men have the courage to rise up like the dairymen did and demand the protection they ought to have. Put ten cents a point on shoddy as they did on oleomargarine, and you will protect every sheep man in America! (Applause) When you cut yourselves loose from these politicians who are deceiving you all the time on these things, you will then appreciate the fact that you are a great deal bigger set of men than you think you are.

There is another reason why the sheep industry is not prosperous in Kansas, and yet it is not an argument against raising sheep. It is simply an argument showing why the sheep industry is not as prevalent in this state as it is in many other states, and why it is not as profitable. Then men learned here in early days that it was more profitable to raise cattle and feed steers, and to raise and feed hogs, than it was to carry on the sheep business or to go into the sheep business, because the cattle didn't require the fencing. They could take care of themselves and were not injured by the dogs. In early days there was not much disease among them and very little disease among hogs, and a man always had a handsome profit on the enterprise; and, as I say, they have found by experience that it was a great deal more profitable to raise cattle and hogs than it was to raise sheep.

It is a fact that you can not satisfactorily or profitably run cattle and sheep together. You may not agree with me on that. Cattle don't like to pasture on ground where sheep run. The smell of the sheep or of the wool or something or other results in making the cattle dislike the pastures upon which the sheep run. That being the case, if men try it they will find that the cattle will not take on flesh and improve as they ought to, and hence it has been from the early stages in this state that people have abandoned the sheep business for that reason, and have resorted to the raising of cattle and hogs, and perhaps horses, in preference. Yet all that is not any argument against sheep, because there are good localities and some individuals like the business, that are especially fitted for it. There are, too, some men that are fond of horses and can raise horses. They know how to raise them and take care of them, and can sell them. Others have the same ability and same success with sheep, and so I say that there is no reason why we should not have all these industries in our beautiful state.

Col. J. W. Robison: The result of the discussion here is very clear in my mind, and that is that when the

EIGHT DOLLARS AND TWENTY-FIVE CENTS

buys our high grade, high arm, guaranteed, 5-drawer, solid polished, complete with all accessories, instruction book, etc.

\$15.20 buys the HIGHEST GRADE, HIGH ARM, 5-DRAWER, DROP CABINET SEWING MACHINE MADE, complete with all accessories, instruction book, etc.

Other high grade Sewing Machines in 5-drawer drop cabinet and other styles \$10.45, \$10.95, \$11.95, \$12.85, \$14.75, etc. We sell nearly all the best known standard sewing machines, including the genuine Singer, Domestic, New Home, Wheeler & Wilson, White, Standard, Minnesota, Howard, Burdick and Edgemore, and our low prices, etc., will simply astonish you. Every machine shipped on **THREE MONTHS' FREE TRIAL** with the understanding that if it doesn't prove perfectly satisfactory you do not pay us one cent. Write for our free Sewing Machine Catalogue, mention this paper, and we will give you the names of a number of your own neighbors to whom we have sold sewing machines, so that you can see and examine your neighbors' machines, learn how they are pleased with them and how much money we saved them. The Special Sewing Machine Catalogue will go to you by return mail, complete with large illustrations, full descriptions and most astonishingly low prices. You will receive the most wonderful price offerings ever heard of, our liberal three months' free trial proposition and the most extraordinary sewing machine offer ever made. Address, **SEARS, ROEBUCK & CO., Chicago.**

EDITOR'S NOTE—Sears, Roebuck & Co.'s offer of the highest grade sewing machine made for only \$15.20 is certainly astonishing



right man gets the right dairy cow and goes to work, he makes a success and profit. When the wrong man gets the right cow, it is doubtful; but if the wrong man gets the wrong cow, he is sure to be lost. It is the same in the horse business and hog business and sheep business, and all the way through. It shows that the farmers who make the money must be improved stock breeders—what this society's name stand for. It now requires better thought and better management, and all the improved methods. If you get the right kind of stock, they are all profitable. Get into the right line, raise the best stock you can get, and you can't help making a profit.

Plants Injurious to Animals.

DR. N. S. MAYO, KANSAS EXPERIMENT STATION.

Most cases of accidental poisoning of stock from eating plants have been observed in the early spring, especially when stock is first turned upon pastures, particularly when the usual pasture-grasses have not started sufficiently to furnish ample food. Under such circumstances animals will eat plants and weeds that under ordinary conditions they will not touch. Similar fatal results may occur among animals when they are first placed in a new pasture. Experience seems to develop in animals a habit of selecting foods. Cases are frequently reported where animals have been turned into a pasture with fatal results although the pasture had been previously occupied by other animals of the same species. It is possible that in such cases the animals already occupying the pasture may have acquired a tolerance to the injurious plants. That animals may acquire a selective habit regarding their food, is shown by locoweeds. That the taste for loco-weed is acquired is shown by the fact that under normal conditions animals do not touch the plant but seem to acquire a taste for it by eating it during those seasons when other food in sufficient quantity is not available. Having acquired the taste they will shun other food to seek their favorite loco-weeds.

CONDITION OF THE ANIMALS.

Another circumstance that seems to play an important part in the poisoning of animals is the physical condition of the animals. If they are thin in flesh with little food in the digestive tract, and hungry, fatal results may follow that would not probably occur if the animals were in good condition and well-fed before being placed on pasture. Under such conditions it is probable some plants will cause fatal results that, under ordinary circumstances can be eaten with impunity, and possibly with beneficial results. To illustrate, if a man at the point of starvation were allowed a full meal of cucumbers, serious results might occur, while under ordinary conditions he might eat them with comparatively little danger.

AUTO-POISONING.

Another possible cause of death, especially in cattle, is what I may call auto-poisoning. From observation it seems probable that in some cases of poisoning acute indigestion occurs, associated with the formation of a toxin or ptomaine as a result of the decomposition of the partially digested contents of the alimentary tract. This poison being absorbed causes serious if not fatal results.

POISONOUS SUBSTANCES.

Under ordinary circumstances animals poisoned by eating plants are believed to suffer directly from a poisonous substance found in the plant which is natural to that species of plant, or at least is found in certain portions of the plant. From many poisonous plants the injurious substance has been isolated chemically, usually in the form of a nitrogenous base, the chemical composition of which can be accurately determined. An excellent list of such plants is reported in the Bureau of Animal Industry report for 1898. Experience seems to show that some plants reported as poisonous to stock are poisonous only at certain stages in their growth, while at other stages or under different conditions they may be harmless. The common cockle-burr (*Xanthium canadense*), may be mentioned as an illustration. This plant, according to all reports I have received, seems to cause poison only its early two-leaved stage when the cotyledons are well developed. The same may be true of the saccharine sorghums. These seem to be injurious during its early stages, when the growth has been checked. Second-growth sorghum is generally be-

lieved to be more poisonous than the first growth, but the formation of the poison seems to depend upon some circumstances which are not understood, as it is a frequent experience that sorghum has been pastured in all stages of its growth with no injurious effects. Dr. Peters, of the Nebraska Experiment Station, reports that the poison seems to be prussic acid which is formed within the plant and that disappears, or its composition becomes changed, as the plant passes through its metabolic changes.

CHEMICALS FROM THE SOIL.

In some cases animals may be poisoned by eating plants containing chemical substances taken from the soil and retained by the plants in sufficient quantities to cause fatal results when the plants are eaten. Nitrate of potash may be taken from a soil rich in nitrates and, under certain conditions, may be retained in poisonous quantities. The same conditions may also occur with reference to the alkali salts and plants of the semi-arid regions. Silica also may be found in plants in sufficient quantities to be injurious, particularly in the equisetum. Professors Rich and Jones, of the Vermont Experiment Station, report the poisoning of horses from eating the common horse-rush (*Equisetum arvense*), but whether silica is the injurious substance has not been determined.

Deposits of material upon the outside of plants, especially in low regions subject to overflow, may cause injury when eaten by animals. Several instances have been observed where bottom-land hay filled with fine sand has caused serious diarrhea when fed to cattle. Decomposing and mouldy foods are often the cause of serious poisoning of stock, both directly and indirectly.

SMOOTH-LEAVED DOCK.

The following cases of apparent poisoning and the circumstances under which they occurred have come under observation recently: On April 16, 168 head of cattle, mostly 3-year-olds, some old cows, and a few 2-year-olds, were driven about eleven miles. The cattle were thin in flesh but able to travel well. They were fed corn-fodder and prairie hay on the 17th and prairie hay on the 18th and morning of the 19th. On the 20th they were placed in a corral of about four acres in which the weeds were starting nicely but the cattle were fed nothing, as the day was windy and it was difficult to handle feed. There was a water-tank in the corral supplied by a wind-mill, but it is doubtful if the animals had sufficient water. On April 21 at 6 a. m. a steer was found dead in the corral and by 4 p. m. thirty-three were dead. A few died during the next two days, making a total of forty-two head. About half of those that died were old cows, about fifteen 3-year-olds, and eight or nine 2-year-olds. The animals that died were thought to be the most vigorous of the bunch.

Very few of the cattle lived more than two hours after they were noticed ailing, and most of them died within a few minutes. They appeared to be very weak, staggered about, drifting across the corral with the wind, would lie or fall down, and die without a struggle and little if any pain. Some of the sick animals placed the head straight in front, resting the lower jaw on the ground. A few bloated before death but tapping the rumen did not give relief. Few sick animals remained on their feet longer than fifteen minutes after they were noticed ailing. After was offered some of the sick animals. All seemed thirsty and drank freely but drinking water seemed to hasten their death. The only post-mortem lesions noticed were an irritation of the mucus membrane of the fourth stomach and beginning of the small intestine, and extravasation of blood in the muscular tissue of the heart.

The weeds growing in the corral had been closely eaten off by the cattle. The principal weed eaten by the cattle was the common smooth-leaved dock (*Rumex crispus*). The leaves and stems of this plant constituted the bulk of the food in the stomach. There were few specimens of cockleburrs and jimson-weed (*Datura stramonium*) found in the corral, so few as to preclude the possibility of poisoning from these plants. A thorough examination of the surroundings and water supply failed to give evidence of any other cause of death than the smooth-leaved dock, and that fact that the strongest and most aggressive animals suffered most, would confirm the opinion. It seems probable that this loss was due to a combination of circum-

THE WEAR OF RUBBER BOOTS AND SHOES DEPENDS UPON THE RUBBER IN THEM.

There is absolutely no wear in any of the other ingredients of which they are composed. Every time the quality of Rubber Boots and Shoes is reduced 10 per cent., the durability is reduced over 20 percent, because there is only one way to cheapen them, and that is to leave out Rubber and put in its place other things that have no wearing quality whatever. This cheapening process has been steadily going on for the past 40 years.

THE BUCKSKIN BRAND

OF RUBBER BOOTS AND SHOES

are made of real rubber—and one pair of them will outwear two pairs of the standard first grades now on the market. Try a pair and be convinced. Made in Duck Boots, Duck rolled edge Overs for Socks, and Felt Boots and in Arctics and light rubber shoes. Insist on getting the BUCKSKIN BRAND. None genuine without the word BUCKSKIN on the top front of the legs of the boots and the bottoms of the shoes. If your dealer does not keep them write us and we will see that you get them either through some dealer in your town or from us direct. We will also send you a very interesting catalogue profusely illustrated, which describes the making of Rubber Boots and Shoes from the gathering of the rubber to the finished goods.

MONARCH RUBBER CO.,
560 Bittner St., ST. LOUIS, MO.

NOT MADE BY A TRUST.



An actual test of a 2-inch strip cut from the sole of the Buckskin Boot. Note the elasticity and strength. Only the best Rubber will stand a test like this. Weight of boy and swing 110 lbs.

stances and not to any poisonous substance in the plant itself; to the physical condition of the animals, the sudden change of feed and possibly the formation of a toxic substance in the stomachs during the process of digestion.

POSSIBLY ACUTE INDIGESTION.

About June 1, eleven head of cows and heifers were turned into a pasture in which no cattle had been placed this year. In a short time all of the cattle were purging violently and three 3-year-old heifers died in convulsions. The other eight recovered in a short time after being removed from the pasture. The sick animals did not bloat but trembled violently and belched a great deal. One of those that died ran in a circle, falling down and getting up frequently for half an hour, when she died. The only abnormal condition noted by the farmer who held an autopsy, was an unusual redness of the mucous membranes of the alimentary tract. The field in which the cattle were turned contained a small amount of blue vervane (*Verbena officinalis*), and of this the cattle had eaten some. The pasture itself was white-clover and practically nothing else in the field. That the cattle died as a result of poisoning seems certain, but whether the small amount of wild vervane or acute indigestion with ptomaine poisoning as a result, I am unable to say.

FLAXSEED CHAFF.

During the past winter two outbreaks of apparent poisoning of cattle have been reported, caused by feeding flaxseed chaff. In one case ten out of forty-two died and in the other five out of twelve. In both cases the animals were in good condition and were being fed corn fodder, millet, and alfalfa. The forty-two head received about two bushels of flaxseed chaff. This was distributed so that they practically all got a portion. The feeder was absent about an hour. When he returned, eight head were dead, two died in a short time, and five others that were affected recovered without serious injury. The animals that died seemed to die in convulsions although some of them showed little signs of excitement. Post-mortem examination revealed an irritation of the gastric mucous membranes. Flaxseed chaff is generally considered to be an excellent feed for cattle and is fed quite extensively in some portions of the State. The flax chaff fed in both cases contained a large amount of light seed, some buds and blossoms and would appear to be an excellent food. It seems probable, however, that the flaxseed was in such a stage of maturity when cut, as to cause fatal effects when fed. A number of other cases were reported and experienced feeders think that it was due to the condition of the flax, and that it may contain a poison at some stages of its growth.

YARROW.

On April 30, I was called to investigate the loss of six colts, four 2-year-olds, one 3, and one 4, all had died within a week and soon after being turned on pasture. All the colts were very thin in flesh, weak and debilitated. They had been fed little except a

poor quality of corn-fodder, and were turned upon a pasture in which older horses were running. The older horses, however, were being worked and were fed hay and grain. The pasture contained practically no grass, only weeds. The principle one which the animals had eaten was the common yarrow (*achillae millefolium*). It seems probable that this weed together with the physical condition of the colts was a combination too severe for their debilitated condition. All the colts purged, exhibited signs of abdominal pain, opened the jaws and yawned frequently, and seemed greatly depressed, lying stretched out upon the side, temperature ranging from 103 to 106 degrees Fahrenheit, pulse weak and rapid.

COCKLE-BURRS.

Two serious losses of hogs apparently poisoned by eating plants will illustrate other outbreaks that have been reported. About April 10, a farmer placed thirty-five head of hogs, consisting of a mixed lot of all ages, in an orchard containing about forty acres. There were some growing wheat and prairie-grass in the orchard. The hogs remained in the pasture about a month with no change of feed or surroundings. They were watered from a well. The hogs were in the pasture about a month and were apparently thriving. On May 12, a heavy rain occurred that started the weeds sprouting, especially cockle-burrs and jimson-weed. In a few days the hogs were noticed rooting the earth for something. On the evening of May 17, they appeared all right. On the morning of the 18th, twenty-five were found dead, eight died during the day, two survived, showing no signs of sickness. The hogs that died appeared to be ailing only a few moments. They would lie down on their sides, kicking and pawing for a short time, and then died. After death they bloated rapidly. The owner examined a number, post-mortem, and the only lesions found, that he could detect, was an apparent inflammation of the stomach and bowels. The weeds found in this orchard were cockle-burrs, jimson-weeds, and horse-weeds. Horse-weed (*erigeron canadensis*), and water-hemp (*acnida tuberculata*), the cockle-burrs and jimson-weed predominating. A chemical and bacteriological examination of the water supply gave negative results. From the symptoms exhibited and the circumstances surrounding, particularly with reference to the stage of growth of the cockle-burrs it is probable that the loss in the case is to be attributed to the injurious effects of these weeds. Several years ago a pig was poisoned experimentally at the Kansas experiment station by feeding young cockle-burrs. It exhibited the symptoms above described.

ACUTE INDIGESTION ON RYE.

Another loss of hogs occurred in a different locality about April 23. About seventy-two head of hogs about 6 months old were turned into a field of twenty-two acres of rye that had made a luxuriant growth. On April 22, about 4 p. m. On the evening of the 23d of April, one pig was found dead and during the night thirty-three died. During the 23d all that could be removed

were taken out of the rye-field. These pigs were all very thin in flesh. They had been pastured in a rye-field during the winter and had eaten it down closely; they had also been fed a small amount of soaked-corn. There were some cockle-burrs in the twenty-two acre field in which the hogs died, but more in the pasture in which they had been running during the winter; there were so few cockle-burrs in the rye-field as to preclude the possibility of poisoning.

Most of these hogs died with symptoms of gastro-enteritis—abdominal pain and vomiting, the ejected material being a mixture of food, mucous and digestive fluids mixed with blood. Post-mortem examination of four revealed extensive gastro-enteritis. The contents of the digestive tract seemed to be nothing but rye.

Of the 39 hogs left, all were kept in another field until May 24, when 2 were turned into the fatal rye-field and left for 12 days; then 2 more were turned in daily, until 16 were in the field, with no bad results, when the remaining 18 were turned in and were left 4 days, during which 4 of the last 18 turned in, died of acute gastro-enteritis, and all were removed.

During the latter part of the winter some brood-sows with pigs were placed in a portion of the rye field and remained there without any bad results. This loss seems to have been caused by acute indigestion and inflammation of the stomach, produced by the excessive amount of rye eaten, aggravated by the physical condition of the hogs at the time. A careful examination of all the surrounding conditions seemed to eliminate all other probable causes of death.

These are some of the losses of stock due to injurious foods or feeding that have come under my observation during the past year, and are similar to many others that have been observed in preceding years. Owing to the excessive drouth of two years ago, and the limited forage crop resulting, the losses the past year have been greater than normal. The conclusions drawn from these cases presented may not be correct, although they are based on observation, not only of the past year but of many preceding years; the facts, however, are presented, and if better solutions can be offered they will be gratefully appreciated.

In the investigation of injurious foods for animals there should be a thorough study of the cases in the field with accurate symptoms, post-mortem lesions, and other circumstances bearing upon the case. These should be supplemented by analyses and by experimental tests of the suspected poisonous foods upon susceptible animals with conditions as nearly as possible approaching those under which the outbreak occurred.

PREVENTION.

Some practical suggestions that will greatly reduce losses of stock, such as have been described above, may be given. (1) In making radical changes of food it should be done gradually, and with great care, especially if the physical condition of the animal is not good. (2) Animals that are in thin flesh and hungry should be fed sparingly until they are in a condition to stand heavier feeding. It is a mistaken kindness to give starving animals all they can eat at once. (3) Before making a change of feed see that the animals are not hungry when they are placed upon the new feed. (4) Hungry animals should not be turned into yards or pastures where weeds are just starting. It seems probable that sprouting and budding plants often contain poisonous substances. Succulent sprouts and buds are often eaten by animals when they will not touch them at a later stage of growth.

The feeding of animals is both a science and an art, and to be successful a feeder must have that discretion, good judgment, and knowledge of the conditions and surroundings that is essential in all other lines of business.

DISCUSSION.

G. W. Glick: Is our common buckeye, that grows in this country or in the north, poisonous to cattle?

Dr. Mayo: It is so believed to be in the early spring when it is budding and is eaten by cattle. I have never seen but one animal that was said to be buckeyed; but the buckeye is given by the Department of Agriculture as one of the plants that is known to be poisonous.

J. W. Robison: There are two stages at which the cattle eat the buckeye. The one is when it sheds its fruit and the nuts are eaten, which are very pleasant. The other is in the early spring when it first sprouts out.

TUESDAY AFTERNOON SESSION.

Live Stock Pedigrees—Value and Abuses.

GEO. W. MAFFET, LAWRENCE, KANS.

The study of pedigree is one of the great recreations and pleasures of the breeder. Many do, and most should, go far enough to have a birds-eye view of their own breed. The value of a pedigree is based on Darwin's principle "Like produces like or the likeness of an ancestor." If "like did produce like" how easy the breeding problem would be—but ancestry is everything and individuality is a minor consideration. Were this not true there would be no value in pedigree. To many breeders pedigree is but a list of meaningless names of ancestors—they know nothing of what these ancestors were noted for—their individuality, their performance, their prolificness—the uniform excellence of their young, their life history and environment.

Now the value of pedigree depends upon Darwin's principle re-worded for my purpose as follows: A long line of ancestry of known excellence and tested performance tends in the offspring to uniformity in both excellence and tested performance. If the offspring has also the power to transmit, then comes as prepotency the power behind the throne that makes the pure-bred outweigh the fine individual in results as a breeder.

I can best illustrate this with a recent incident—an acquaintance sent to the leading breeder of Barred Rocks in New York State and purchased for \$30 a cock and four hens, \$6 each. He



GEO. W. MAFFET, Lawrence.

then entered them in our poultry show and they could not score high enough to win either first, second, or third, either as individuals or as a pen; home-bred birds carrying off all honors. But my friend is not worried. He did not ask for high-scoring birds, but breeding value, and he expects to hatch from the eggs of his purchase fine enough individuals to sweep the show-ring next year. And my friend is right. These birds contain the blood elements that have won in the shows for many, many generations.

I well remember my initiation into pedigree. I was on the great Jewett horse farm in Sedgwick County and the superintendent knew from previous conversations that I had a great reverence for Mambrino Patchen, the greatest show horse in the world in his day. In going over the place one morning the superintendent called an assistant and gave him a low order. The man went into a box-stall and brought out a rat-tailed, sway-backed, pot-bellied, flea-bitten grey mare and paraded her for my inspection. I looked the thing over, smiled at my friend and said, "Well?" Says he, "What do you think of her?" Says I, "I would be ashamed to lead her home up our back alley." Says he, "She is a daughter of Mambrino Patchen." I was thunderstruck and showed it. Says he again, "She is the dam of two performers in the 2:15 list." Off came my hat in reverence to that old mare, for fellow breeders, the test of a breeder is not what it is and not what it can do, but what its offspring actually is and can do in tested performance.

Pedigree in itself is incomplete without first the recorded ancestors, together with date of birth, names of breeders, and transfers of ownership; second comes the scale of points by which the breeder must judge the individual points and try by mating to improve them; third comes the record

of performances and the classification of same in family lines. The recording association can or should furnish all this data.

So far as I am informed the Standard-Bred Trotting Horse Recording Association has never adopted a scale of points, although the Michigan Agricultural College brought one out about ten years ago. It is badly needed, for with speed as the only basis of selection, beauty has been lost sight of and with the continued use of the overhead check the trotting horse's neck will, sure as fate, in time arch the wrong way. Size, too, is hard to get.

Wallace's Year Book, published by the Trotting Association, contains a printed summary of every race of the year on accredited race tracks in the United States. A list of every 2:30 trotter and 2:25 pacer; a great table of sires, showing every son and daughter, grandson and granddaughter who has trotted or paced into the list; the great brood mares who have produced two or more performers—and other statistics. It is a bewildering mass of figures and hard to rate as to value, but by a little bookkeeping applied to the Year Book I will give you a birds-eye view of the Standard-bred horse as valued by performance, classified along the male lines.

There are two great families of trotting horses, headed by two great-grandsons of Imported Messenger, viz. Hambletonian 10 and Mambrino Chief 11. Three-fourths of all the horses who have performed in 2:30 belong to the Hambletonian family. Add the Mambrino Chief family to the Hambletonians and you have seven-eighths of the entire 2:30 list. Among the remaining one-eighth are included the Morgans, the Bashaws, the Norman 25, and Blackwoods, the Blue Bulls, the Tom Hals, the Sultans, and all the unknown blood. Unknown blood is not always cold blood—far from it. It may be the hottest of hot blood of which trace has been lost through change of ownership.

I present herewith a tabulated summary of the trotting families, which I will not read. It shows the classified families, with the performing sons and daughters, the producing sons and daughters, and the performing grandsons and granddaughters. The Geo. Wilkes family takes the lead with 83 performers, 198 producers, and 2,573 performing grandsons and granddaughters. Electioneer comes next with 160 performers, 176 producers, and 1,045 performing grandsons and granddaughters. Third comes Abdallah 15 with very few, but claims credit for his sons, Almont, Belmont, and Major Edsall, and his grandsons Nutwood and Robert McGregor; Nutwood himself having 165 performers, 245 producers, and 877 performing grandsons and granddaughters.

It is interesting to note how much opportunity and environment has to do with pedigree and how much accumulated performance has to do with age. For instance, out of the 150 producing sons of Hambletonian 10, three stand preeminent in the breed, George Wilkes and Abdallah 15, each of whom went from New York to Kentucky; and Electioneer, who went from New York to California. Of Electioneer's 97 producing sons, the three leading went from California—Sphinx to Michigan, Norval to Kentucky, and Chimes to New York. The two sons of Abdallah 15—Almont and Belmont—both born the same year and both out of Mambrino Chief mares, remained in Kentucky and kept from year to year in close rivalry, until Nutwood, one of Belmont's sons, went from Kentucky to California and then to Iowa and as a result Nutwood stands among the select half-dozen sires at the supreme head of the breed. Onward and Red Wilkes, sons of George Wilkes, both out of Mambrino Chief mares, and born in 1875 and 1874, have fought for supremacy for many years, sometimes one, then the other ahead in the performance of their progeny. At this time Red Wilkes leads a little in numbers and Onward is a trifle ahead in speed averages.

Climate—especially Kansas climate—has done wonders with horse pedigrees. For instance, Patchen Wilkes, a Kentucky-born son of George Wilkes, was permitted to spend a short term of years in central Kansas. As a direct result he absorbed enough ozone to go out and sire Joe Patchen 2:01½, who set the world on fire at the pace. And when they wanted something to chase him with around the track, they had to come back to Kansas again and get John R. Gentry 2:00½, who was the result of allowing a Missouri-bred son of Red Wilkes to stay long enough in Kansas to get the keynote of the State. And the Kansas-given impulse

Chimney with nobody's name on it.

Who's responsible for it?

Not MACBETH.

If you'll send your address, I'll send you the Index to Lamps and their Chimneys, to tell you what number to get for your lamp.

MACBETH, Pittsburgh.

remained long enough with Joe Patchen for him to sire Dan Patch 1:59½, the still great pacer who has just sold for \$60,000. Furthermore, Joe Patchen has put four in the list this year, with a total of eleven; and John R. Gentry has a total of ten.

And there is still the unwritten part of horse pedigree. For instance, the Almont blood to the last drop carries speed and endurance with it, but also, alas, an unhappy disposition and weaknesses of conformation. The Nutwoods run strongly to chestnuts and pale bays. The Mambrino family are noted for friendliness and kindly dispositions. The Morgan blood of the present day has little Morgan in it—it is mostly Mambrino. And so on.

I shall be brief in touching on Jersey pedigree. In the first place only descendants of animals imported from the Island of Jersey are allowed in the breed. No crosses are permitted to enter in to Americanize and improve the breed. There has been such a demand for the blood that there has been little selection and still less culling, and as a result we have a milch animal with no feat from which to draw it. The milk is rich enough to turn to butter particles as it strikes the pail on a murky day, but a three-gallon Jersey is considered a good one and a large majority do not give that. There is a scale of points for the breed and published books of butter tests. Of recent years the registering association has adopted a form of private butter test by which the owner can test his cow himself and certify the result to the association on printed blanks. The milk is weighed as drawn each day and so is every pound of feed used during the test. No over one ounce of salt to the pound of butter is used and the weight before and after salting is given. It seems incredible that the whole Jersey interest of this country is mostly a growth of twenty years.

Passing rapidly to the Poland-Chinas we find a peculiar state of affairs existing—five registering associations and not one of them preserving nor classifying show-ring statistics—the only place where meat animals can compete for supremacy in performance. There is a move on foot to consolidate these five registering associations and in the right hands success should follow. There is a scale of points for the Poland-China breed, a list of disqualifications, a detailed description by sections of a model hog, giving also objectionable characteristics in each section.

There are many breeders who labor under the belief that a registering certificate is all there is to registered stock and know not where the minutia of the fancy can be had. To these we say, apply first to the registering association for printed statistics, then go to the trade journals printed in the

Why RUMELY?

The thrasher has many reasons, too many to give here. Summed up, it means the model thrashing outfit, the best money can buy. You will find the latest catalog on Rumely's Rear Geared Traction Engines and New Rumely Separators, full of thrashers' logic, argument that convinces. Write us for it. Mailed free.

M. RUMELY CO., LA PORTE, IND.

WELL DRILLING MACHINES

The kind every well posted man uses. Why not buy the latest and best? Old style machines are "not in it." Our late ones are great money earners. Address

Loomis Machine Co., Tiffin, Ohio.

interest of the breed, and then apply to fellow breeders for individual experience.

Concerning Poland-China pedigrees the greatest factor in the start of the breed was the Old Harkrader Sow, a mammoth white sow weighing 950 pounds, who flourished in Ohio about 1865. Nothing is known of her origin save she was second choice of a bunch of twenty-two head of shotes. Tom Corwin 2d descended directly in the female line from the Old Harkrader Sow. World Beater, who also descended in the direct female line from the Old Harkrader Sow, had a son named U. S. The original Tecumseh was a son of U. S. out of a daughter of Tom Corwin 2d, and the original Black U. S. was a grandson of Tom Corwin 2d out of a daughter of U. S. The Tecumseh and Black U. S. families are the two great families of the breed.

Chief Tecumseh 2d, the fountain-head of the modernized Poland-China, is a great-grandson of the original Tecumseh. It is claimed for Chief Tecumseh 2d that 95 per cent of all the ribbons earned in the show-ring the past ten years have been carried off by his sons and daughters, grandsons and granddaughters and their direct progeny. Ninety-five per cent looks very much like the whole hog. The great boars of the breed, Chief Perfection 2d, Perfect I Know, King Perfection, and I Am Perfection, are grandsons of Chief Tecumseh 2d. Proud Perfection, L's Perfection, and Perfect Perfection are great-grandsons and the great Corrector is a great-great-grandson. Ideal Sunshine, the crazy fashionable boar of Ohio, is the result of breeding a son of Black U. S. to a daughter of Chief Tecumseh 2d. The ability to show heart girth is one of the great causes of the success of Chief Tecumseh 2d's progeny.

The leading sons of Black U. S. are One Price, with his sons Hadley, Peerless, and Priceless; A. A., with his son Black Chief and grandsons U. S. Chief and Black Chief's Rival; Ideal Black U. S. with his son Ideal Sunshine; Welch's Black U. S., and Heyl's Black U. S. Missouri's Black Chief is a great-great-grandson of Black U. S.

Lack of time prevents further dabbling into breed pedigrees, but as all pedigree is based on the honor of the breeder, none but a strictly honorable man can be an extra great success in the business. The breeding certificates of a common, everyday liar can not be looked upon as above impeachment, neither is the identity of an animal any too sure in the hands of the tricky man guilty by habit of sharp practices. The name of the breeder is a most important part of a pedigree, even the careless man with his catch-caves and catch-litters can do a world of harm.

The ability to hand down inherent blood quality is the basis of all high prices paid for pedigreed stock. Hence to sell a non-breeder and not replace it is to obtain money under false pretenses. When a man buys a female bred to a named male, he buys it to diffuse that blood in his herd—a rebate of 25 per cent will not make him good in case of a miss. It was blood value and not money he was after. Do not pay more than twice meat value for a breeder if the owner is afraid to guarantee that it shall be a successful breeder. Two dollars and a half is enough to pay for the service of a stallion whose owner will not guarantee a colt.

Popular opinion is prone to ascribe to pedigreed stock a lack of hardiness and constitution due to pampering and inbreeding. Yet nothing can be more hopelessly inbred than the scrub or mongrel; and it matters not what the test, the pure-bred can out-perform the common animal. The high-grade sometimes outclasses the pure-bred, but without the pedigreed animal there can be no high-grade and the latter's value comes not from the cold blood it carries, but from the infusion of hot blood; moreover, the grade has not the propensity to hand its blood values down.

In closing, fellow breeders, I wish to ask each one of you personally, "How will it be if you should die to-night?" Will your herd, for lack of proper identification of its individuals, have to be sold as grades, to the great financial loss of your family? Or does each animal bear an ear-mark or a number which connects it with your home registration records. Can a stranger take your books out to the herd and identify those of most value from numbered tag or close description? What trace of their parentage do the younger animals carry. Better before too late adopt a system of identification that connects the herd with your books.

Alfalfa as a Bone-Producer.

H. M. COTTRELL, TRENTON, MO.

Tests of experiment stations and the experience of successful stockmen all show that to properly develop bone the young animal must make a rapid growth or be supplied with feeds rich in protein and in mineral matter. If either of these are lacking the growth of bone and body will not be the best.

Two-thirds of the weight of the dry material of bone is mineral matter and one-third of the weight is albuminous matter. The more solid the bone, the richer it is in mineral matter. These facts explain why both protein and mineral matter must be furnished bountifully by the feed if great bone development is produced.

Prof. W. A. Henry, of Wisconsin, has made the greatest number of experiments in this line. A description of a single experiment of his will show the effect of protein and mineral matter in feed in developing bone. Prof. Henry fed one lot of pigs a ration of milk, middlings and dried blood, a ration rich in both protein and mineral matter. Another lot was fed corn, a feed deficient in protein and mineral matter. The pigs fed the ration rich in protein and mineral matter made nearly one-fifth more gain than those fed corn, and their bones were 32 per cent stronger.

In trials made with pigs at the experiment stations of Wisconsin, Kansas, Missouri and Alabama, an abundance of protein and mineral matter in the feed not only increased the strength of the bones but also increased the development of all the vital organs and of the muscles making a greater proportion of lean meat in the carcasses.

When Prof Henry first published the results of his experiments some authorities claimed that the protein in the feed had nothing to do with the increased strength found in the bones, but that it was produced by the large amount of mineral matter found in the mixture of milk, middlings and dried blood. To test this Prof Henry fed one lot of pigs corn alone, one lot corn and wood ashes and one lot corn and bone meal. None of the lots made good gains except for a short time, but the pigs fed corn and bone meal developed bones more than twice as much as those fed corn alone and the bones of those fed corn meal and wood ashes were 93 per cent stronger than those fed corn alone.

Gluten meal is one of our richest feeds in protein and has all the good qualities of linseed meal except that it contains little mineral matter. One winter the writer fed over 100 dairy cows on a ration made up chiefly of corn ensilage and gluten meal with a small quantity of other feeds thrown in to make an appetizing mixture. The ration was deficient in mineral matter, but furnished more than the required protein and a heavy milk yield was secured. After this ration had been fed a few months the cows began to abort and this became so bad that an abortion was of almost daily occurrence. It was thought that the abortion might be caused by a lack of mineral matter in the feed and we began feeding finely ground bone daily to the cows. In a short time abortion stopped. Apparently the feeds given did not furnish sufficient mineral matter for the milk and to develop the fetus and the fetus was rejected.

What have these facts to do with the alfalfa as a bone producer? Simply this—accurate tests have not been made in regard to the influence of alfalfa in developing bone. Wherever tests have been made with feeds rich in both protein and mineral matter it has been shown that such feeds greatly increase the development of bone. Alfalfa hay is exceedingly rich in both protein and mineral matter. A ton of alfalfa hay furnishes 51 pounds of potash, 44 pounds of lime and 11 pounds of phosphoric acid, while a ton of corn supplies 8 pounds of potash, — pounds of lime and 14 pounds of phosphoric acid.

Besides being rich in protein and mineral matter, alfalfa is bulky, a very desirable quality when young animals are forced during the bone forming period. It is cooling and laxative.

Lime and phosphoric acid are the two mineral elements most used in the production of bone. Potash is of especial value as an agent in the rapid formation of new tissues, both bone and flesh, and alfalfa, rich in potash, has the composition needed for quick growth of bone.

To produce the full development of bone the work must be commenced before the animal is born and the dam fed plentifully with bone producing feeds during the entire time she is



Mrs. Hughson, of Chicago, whose letter follows, is another woman in high position who owes her health to the use of Lydia E. Pinkham's Vegetable Compound.

"DEAR MRS. PINKHAM:—I suffered for several years with general weakness and bearing-down pains, caused by womb trouble. My appetite was fitful, and I would lie awake for hours, and could not sleep, until I seemed more weary in the morning than when I retired. After reading one of your advertisements I decided to try the merits of Lydia E. Pinkham's Vegetable Compound, and I am so glad I did. No one can describe the good it did me. I took three bottles faithfully, and besides building up my general health, it drove all disease and poison out of my body, and made me feel as spry and active as a young girl. Mrs. Pinkham's medicines are certainly all they are claimed to be."—Mrs. M. E. HUGHSON, 347 East Ohio St., Chicago, Ill.

Mrs. Pinkham Tells How Ordinary Tasks Produce Displacements.
Apparently trifling incidents in woman's daily life frequently produce displacements of the womb. A slip on the stairs, lifting during menstruation, standing at a counter, running a sewing machine, or attending to the most ordinary tasks may result in displacement, and a train of serious evils is started. The first indication of such trouble should be the signal for quick action. Don't let the condition become chronic through neglect or a mistaken idea that you can overcome it by exercise or leaving it alone.

More than a million women have regained health by the use of Lydia E. Pinkham's Vegetable Compound.

If the slightest trouble appears which you do not understand write to Mrs. Pinkham, at Lynn, Mass., for her advice, and a few timely words from her will show you the right thing to do. This advice costs you nothing, but it may mean life or happiness or both.



Mrs. Lelah Stowell, 177 Wellington St., Kingston, Ont., writes:

"DEAR MRS. PINKHAM:—You are indeed a godsend to women, and if they all knew what you could do for them, there would be no need of their dragging out miserable lives in agony.

"I suffered for years with bearing-down pains, womb trouble, nervousness, and excruciating headache, but a few bottles of Lydia E. Pinkham's Vegetable Compound made life look new and promising to me. I am light and happy, and I do not know what sickness is, and I now enjoy the best of health."

Lydia E. Pinkham's Vegetable Compound can always be relied upon to restore health to women who thus suffer. It is a sovereign cure for the worst forms of female complaints,—that bearing-down feeling, weak back, falling and displacement of the womb, inflammation of the ovaries, and all troubles of the uterus or womb. It dissolves and expels tumors from the uterus in the early stage of development, and checks any tendency to cancerous humors. It subdues excitability, nervous prostration, and tones up the entire female system. Its record of cures is the greatest in the world, and should be relied upon with confidence.

\$5000 FORFEIT if we cannot forthwith produce the original letters and signatures of above testimonials, which will prove their absolute genuineness.

Lydia E. Pinkham Medicine Co., Lynn, Mass.

pregnant. The composition of alfalfa fits it for this purpose and its cooling and laxative effects and its bulky character make it still more valuable.

In the winters of 1897-'98 and of 1901-'2, hundreds of brood sows were wintered in Kansas chiefly on alfalfa hay. On many farms alfalfa hay was the only feed the sows had. When the spring litter came following these winters of alfalfa feeding it was noticed in all parts of the State where alfalfa had been fed that the pigs were unusually large and strong—the protein and mineral matter had developed strong bone and large bodies.

During the five years the writer had

charge of the Kansas Agricultural College herd, alfalfa hay was fed summer and winter to the cows. The beneficial effect on the size and vigor of the calves was plainly seen. In pushing pure-bred calves for size and bone we induced them to eat all the alfalfa hay possible as soon as they were old enough to safely handle it because the alfalfa hay developed bone and muscle.

The writer has traveled in nearly every county in Kansas during the past five years and wherever mares have been found that were pastured on alfalfa through the summer and fed liberally on alfalfa hay in winter, invariably the colts have been of more

than usual size with more than the usual development of bone. In most cases it is to be regretted that growth and the development of bone were given a severe check as soon as the colts were weaned.

Pigs complete their growth in much less time than either calves or colts. Alfalfa alone will not furnish enough mineral matter to secure the greatest development of bone in pigs. In addition to alfalfa, growing pigs should be fed all the corn-cob charcoal they will eat as this supplies the needed mineral matter. In a test made by the writer, pigs were forced to the limit of feed and weighed daily, and it was found that the gains were proportionate to the amount of corn-cob charcoal eaten.

With growing animals other than pigs we have not found it necessary to supply more mineral matter than that furnished by alfalfa.

The Kansas stockman can develop cheaply bone in his pigs and colts with alfalfa pasture in summer and alfalfa hay in winter. He can safely and profitably feed his breeding females, mares, cows and sows, alfalfa hay every day in the year and thereby secure well developed bone in the young at birth. Under favorable conditions his cows and calves can be pastured on alfalfa.

The benefits to the Kansas stockman of a greater development of bone in his live stock are large. Hundreds of thousands of dollars have been spent for English and French stallions because of their weight and great bone development. Is it not reasonable to

consider that a few generations of full alfalfa feeding, kept up the year round, by Kansas horsemen, will make our horses what they should be in this respect.

Twenty-five years of observation of horse breeding by Kansas farmers has shown that the greater part of the benefits that might be secured from the use of heavy boned stallions is lost because mares and colts are not properly treated. Full feeding of alfalfa to mares and colts will enable us to secure much greater influence and improvement from these sires.

The best market for Kansas' pure-bred cattle is in the Southwest. There the feed, water and handling all lead to a rapid deterioration of bone and the demand of Southwestern cattlemen is for heavy-boned bulls. Heavy alfalfa feeding of both cows and calves, coupled with proper selection and good handling will enable the Kansas stockmen to supply this demand.

The development of bone to the full limit carries with it an increase in size and vigor of all the vital organs and a large increase in the proportion of lean in the carcass. This is desirable in all farm animals, especially so with swine. Alfalfa pasture and hay supplies the feed the year round needed to secure these results with hogs.

Other feeds such as dried blood and tankage will produce the same results as alfalfa, but at a much greater cost. Kansas stockmen raise more alfalfa and feed alfalfa in some form every day in the year to all breeding females and all growing animals of all kinds on the farm.

Results of Feeding Swine at the Kansas Experiment Station.

D. H. OTIS, MANHATTAN, KANS.

Results from feeding swine at the Kansas experiment station dates back to the organization of our experiment station. Prof. E. M. Sheldon fed ten head of 68-pound hogs divided into two lots as nearly equal as possible, one being fed on shorts and bran and the other on corn-meal. The test showed the bran and shorts to be superior to corn-meal for hogs of this size.

Average weight 156 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.
1. Kafir-corn-meal.....	4	77	1.37	515
2. Corn-meal.....	4	77	1.70	498
3. Ground wheat.....	4	77	1.78	411

The results in this experiment indicate that Kafir-corn meal is somewhat inferior to corn-meal. It also indicates that ground wheat is fully equal and probably superior to corn-meal. Whenever wheat can be obtained for the same price as corn per 100 pounds, there is no question but what it is more profitable to feed a mixture of corn and wheat than to feed corn alone.

COTTONSEED MEAL FOR HOGS.

In connection with the above experiment, a test was made in feeding cottonseed-meal to hogs. This experiment was made with small pigs. At first these pigs were offered a mixture of two-thirds corn-meal and one-third cottonseed-meal, but as they refused to eat it the mixture was changed to five-sixths corn-meal and one-sixth cottonseed-meal. At the end of six weeks all of these pigs were dead from the effects of the cottonseed-meal. Following this test with small pigs, two sows, one weighing 135 pounds and the other 308 pounds, were tested with a grain ration of one-fourth cottonseed-meal and three-fourths corn-meal. These sows were fed for forty-five days and consumed 6.3 pounds of the mixture fed, per head, per day. These sows made good gains and showed no signs of disease during this short feeding period.

Still another experiment in feeding cottonseed-meal was made in 1899, in

Average weight 63 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.
1. Kafir-corn-meal, (shorts).....	3	126	.50	621
2. Kafir-corn-meal $\frac{2}{3}$, soy-bean-meal $\frac{1}{3}$	3	126	1.44	396
3. Corn-meal (shorts).....	3	126	.80	482
4. Corn-meal $\frac{2}{3}$, soy-bean-meal $\frac{1}{3}$	3	126	1.46	369

At the end of 77 days the hogs in the Kafir-corn and corn-meal lots were doing so poorly that it was evident they would not fatten on the present ration, so the corn ration was changed so as to contain one-third shorts. The results obtained in feeding soy-bean meal are very marked, having the grain ration composed of one-third soy-beans and two-thirds Kafir-corn meal, the daily gains were increased from .5 of a pound to 1.44 pounds daily per

head. The amount of grain required to produce 100 pounds of gain was reduced from 621 to 396 pounds.

Thirty hogs weighing an average of 188 pounds were divided into six lots as nearly equal as possible, in November, 1897. The treatment, feed and results obtained from this ration is clearly shown in the following table:

Average weight 188 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.
1. Kafir-corn, whole dry.....	5	49	1.39	542
2. Kafir-corn, whole soaked.....	5	49	1.35	632

DRY AND SOAKED CORN AND KAFIR-CORN COMPARED.

Thirty hogs weighing an average of 188 pounds were divided into six lots as nearly equal as possible, in November, 1897. The treatment, feed and results obtained from this ration is clearly shown in the following table:

Average weight 188 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.
1. Kafir-corn, whole dry.....	5	49	1.39	542
2. Kafir-corn, whole soaked.....	5	49	1.35	632

3. Kafir-corn-meal, wet.....	5	49	1.85	471
4. Corn, shelled, dry.....	5	49	1.50	457
5. Kafir-corn-meal $\frac{2}{3}$, corn-meal $\frac{1}{3}$, wet.....	5	49	1.91	456
6. Kafir-corn-meal $\frac{2}{3}$, soy-bean-meal $\frac{1}{3}$, wet.....	5	49	2.12	409

Comparing the first and second lot it will be noticed that there is no gain from the soaked Kafir-corn over the dry. Where corn and Kafir-corn are fed together it will be noticed that better results are obtained than when either

one are fed alone, this experiment again shows the value of a small quantity of soy-beans added to the ration.

The above experiment was replaced with hogs averaging 122 pounds at the beginning of the experiment. The following results were obtained:

Average weight 122 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.
1. Kafir-corn, whole, dry.....	3	84	1.18	512
2. Kafir-corn, whole, soaked.....	3	84	1.05	550
3. Kafir-corn-meal, wet.....	3	84	1.21	550
4. Corn, shelled, dry.....	3	84	1.21	479
5. Kafir-corn-meal $\frac{2}{3}$, corn-meal $\frac{1}{3}$, wet.....	3	84	1.48	477
6. Kafir-corn-meal $\frac{2}{3}$, soy-bean-meal $\frac{1}{3}$	3	84	1.73	408

With these hogs as with the former lots, the soaking of the Kafir-corn resulted in no benefit. Mixing the corn and Kafir-corn and adding soy-beans to the ration show excellent results here as in the former experiment.

SOAKING CORN, KAFIR-CORN, AND SOY-BEANS FOR YOUNG PIGS.

Twenty pigs were divided into four lots with an average weight of 35 pounds per head, results are given as follows:

Average weight 35 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.
1. Kafir-corn-meal, soaked.....	5	112	.66	542
2. Kafir-corn-meal $\frac{2}{3}$, soy-bean-meal $\frac{1}{3}$, soaked.....	5	112	1.15	374
3. Corn-meal, soaked.....	5	112	.74	484
4. Corn-meal $\frac{2}{3}$, soy-bean-meal $\frac{1}{3}$, soaked.....	5	112	1.08	869

It will be seen that both corn and Kafir-corn gave very unsatisfactory results with pigs of this kind. It indicates that young pigs must be well supplied with protein so as to enable them to develop both bone and muscle. Where the protein is supplied in the form of soy-beans it will be seen that

the gains are much better and the amount of feed consumed per hundred pounds gain greatly reduced.

ADDING ALFALFA TO THE RATION.

This experiment began in November, 1898, and as will be seen from the following table contained some extraordinary results:

Average weight 126 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.	Hay per 100 lbs.
1. Kafir-corn-meal, dry alfalfa.....	10	63	1.44	515	72.4
2. Kafir-corn-meal, ground alfalfa.....	10	63	1.32	538	78.8
3. Kafir-corn-meal $\frac{2}{3}$, soy-bean-meal $\frac{1}{3}$	10	63	1.55	468	...
4. Kafir-corn, whole, dry.....	10	63	.94	655	...
5. Kafir-corn-meal, dry.....	10	63	.83	749	...
6. Kafir-corn-meal, wet.....	10	63	1.00	691	...

It is surprising what effect a small amount of alfalfa hay will have on the gains of hogs. It will be noticed that the alfalfa hay gives better results than the ground alfalfa; these results show a gain of 868 pounds of pork per ton of alfalfa. There is no question but that a good quality of alfalfa with its high content of protein is a very valuable, and I may say in Kansas, almost indispensable feed in attaining the best results for hogs. It is hardly fair to say that all the benefit comes

from the alfalfa; variety in the ration of hogs is appreciated in the same manner as the variety for man is appreciated. Variety adds to the keenness of the appetite and enables the animal to eat more and get more good out of what it eats.

KAFIR-CORN, COTTONSEED-MEAL, SKIM-MILK, AND ALFALFA COMPARED.

This experiment started in February, 1899, was made up of 18 hogs divided into three lots of six hogs each with the following results:

Average weight 165 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.	Per 100 lbs.
1. Kafir-corn-meal, wet, alfalfa.....	6	22	.88	538	(hay) 214
2. Kafir-corn-meal, cottonseed-meal, wet.....	6	22	.95	466	(U.S.M.) 173.8
3. Kafir-corn-meal and skim-milk.....	6	22	2.43	268	(milk) 528

This table shows cottonseed-meal as previously indicated gives excellent results when fed in small quantities. The most striking feature in all these experiments is the large gains obtained from the use of skim-milk, gained 2.43 pounds daily and consumed only 268 pounds of grain and

526 pounds of skim-milk per 100 pounds gain.

KAFIR-CORN, SOY-BEANS, AND ALFALFA COMPARED.

The fifty hogs used in this experiment were divided into lots of 10 each and fed as indicated in the following table:

Average weight 139 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.	Hay per 100 lbs.
1. Kafir-corn, alfalfa.....	10	50	1.37	501	131
2. Kafir-corn-meal, alfalfa.....	10	50	1.37	516	123
3. Kafir-corn-meal $\frac{2}{3}$, soy-bean-meal $\frac{1}{3}$	10	50	1.73	435	...
4. Kafir-corn, whole, dry.....	10	50	.91	640	...
5. Kafir-corn-meal.....	10	50	.88	658	...

This experiment again manifests the already been brought out in the experiments mentioned, namely: The excellent results obtained from the use of alfalfa and soy-beans.

KAFIR-CORN, CORN, SKIM-MILK, AND ALFALFA PASTURE COMPARED.

Four lots of twenty hogs each were used in this experiment. The alfalfa pasture consisted of 1.37 acres for each lot on pasture, the results were as follows:

Average weight 124 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.	Milk per 100 lbs.
1. Kafir-corn, skim-milk and alfalfa pasture.....	20	42	1.68	477	298
2. Kafir-corn and skim-milk.....	20	42	1.57	500	318
3. Kafir-corn.....	20	42	.99	638	...
4. Kafir-corn and alfalfa pasture.....	20	42	1.08	554	...

This experiment again manifests the value of skim-milk as well as the value of alfalfa pasture.

KAFIR-CORN, SOY-BEANS, SKIM-MILK, AND ALFALFA FOR WEAK HOGS.

Having 66 hogs which had recovered from cholera, a test was made

with various compositions of nitrogenous foods with Kafir-corn to bring these hogs out. The gains of these were comparatively poor as the cholera seemed to have lessened their vitality and the keenness of their appetite:

Average weight 200 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs.	Hay per 100 lbs.
1. Kafir-corn, soy-bean-meal, alfalfa.....	10	97	.81	629	145
2. Kafir-corn, soy-beans, alfalfa.....	10	97	.98	566	120
3. Kafir-corn, soy-beans, skim-milk.....	10	97	1.18	403	370
4. Kafir-corn, soy-beans, skim-milk, alfalfa.....	36	97	1.31	469	171

It will again be noticed that soy-beans and skim-milk are instrumental in making the best gains, it will also

be noted that there seems to be no gain from grinding the soy-beans.

ALFALFA AND RAPE PASTURE VS. DRY FEED.

During the summer of 1902 our feed lots were plowed up and seeded to rape, and an alfalfa field was divided up and used for hog pasture. Thirty

hogs were divided into lots as nearly equal as possible, one being placed in the dry feed lot with no green food whatever, one of the others on the rape lot and one on the alfalfa. The results are as follows:

Average weight 512 lbs.	No. of Hogs.	Days fed.	Daily grain per head	Grain per 100 lbs. gain, lbs.
1. No pasture.....	10	98	1.04	371
2. Rape pasture.....	10	98	1.09	301
3. Alfalfa pasture.....	10	98	1.10	300

This experiment is interesting from two standpoints, first, in regard to the comparative value of pasture and dry lots for feeding hogs, and, second, the comparing of rape and alfalfa as pasture for hogs. It will be noticed that the gains are very nearly equal but the dry lot consumed seventy pounds more grain per hundred pounds of gain than did the lots on pasture. The results are as follows:

It required over twice as much acreage of rape to furnish the necessary pasture for ten hogs than alfalfa. The rape was, however, seeded in feed lots and on soil that would otherwise have laid idle or grown up to weeds. The cost of preparing the seed-bed and seeding amounted to \$1.80 per acre. There was one acre of rape consumed by the ten hogs, and in the case of the alfalfa there was only one-half an acre and even from this small area some hay was cut.

It was noticed that the hogs in the dry lots seemed to be hankering after something green and their appetites seemed to be unsatisfied without some kind of roughness. They would even nibble at straw in their attempt to satisfy their craving for roughness.

DISCUSSION.

J. W. Robison: I would like to ask Prof. Otis if he couldn't have made a very interesting experiment if he had used a little sorghum? I think the use of alfalfa and skimmed-milk could have been carried a little further, too, and had a very interesting as well as useful experiment. I would like to supplement what the Professor has said on alfalfa as being an entire and complete feed for cattle and horses. I haven't found it so. In feeding some 4,000 or 5,000 tons a year of alfalfa of my own growing, I found it to be a fact that if I kept my fat cattle on alfalfa for two weeks alone, they crave something else. Last year, being gone from the corral of cattle for two or three weeks, upon my return the feeder says, "They aren't eating enough alfalfa. They seem to be tired of it." I said, "Do you give them any shock corn? Have you given them any in the last week or two?" He said he had not given them any for two or three weeks. When we did haul it out, they took it from the tassel and ate it right down. Alfalfa needs to be supplemented by straw, corn-stalks—any other kind of roughness that has an additional quantity of carbohydrates in it. There is too much protein in alfalfa to confine the animal to it. These "professor fellows" tell me that the chemical constituents are somewhat similar to wheat-bran, and we wouldn't think of confining our cattle to wheat-bran altogether for roughness.

Mr. Greene: In reference to feeding hogs, I would like to ask the Professor if he fed the hogs after he quit pasturing them?

Prof. Otis: Yes, sir.

Mr. Greene: Wasn't there more marked gain than when you had in those you had in the dry pen?

Prof. Otis: Not very much.

Mr. Greene: Hogs raised on grass and pasture are much more hardy and have more bone and more frame, and after you pen them up to fatten, they will take on much faster. There was another point I can't understand. The Professor says that alfalfa will furnish more pasture than rape.

Prof. Otis: We measured the area, and it took just one acre of rape to run these ten hogs this year, while it only required a half acre of the alfalfa.

Mr. Greene: It was so hot and dry a year ago last season that hogs would not bother anything of that kind. That was my experience. My hogs wouldn't eat rape a year ago last summer until the rains came in the fall and freshened it up. Then they ate it. What time, Professor, did you turn on the rape?

Prof. Otis: Just as soon as it was high enough.

Mr. Greene: My experience is they won't eat it until it is up a little. Did you ever feed pumpkins at the experimental station?

Prof. Otis: We haven't any to feed.

Mr. Greene: I think there is something it will pay any farmer to raise.

I think there is nothing better to feed along the fore part of the winter for an appetizer and giving hogs good health.

Prof. Cottrell: I want to ask Mr. Maffet a question. He strongly urged the marking of animals so you could identify them. He was right, that that is one of the most important things in breeding blooded stock. I would like the experience of this gentleman here to tell me how to do it. What kind of a mark have you that will stay in the hog's ear, where you have a lot of them to mark? I have tried everything I have heard of that was highly recommended, but found nothing that is successful.

Mr. Maffet: I am like the Professor, and have tried everything that has been brought out. Nothing I have found will reach it. If it is something that goes right through the ear and is clinched, if inflammation starts, it will rot out. Everything in the way of a band that goes through the ear, when it bends down and starts a pressure, it will rot right through the ear. In hogs I have punched round holes in the center of an ear, and have had it close up entirely so it never could be identified at all. There would be no trace of that hole ever found again. It would be completely closed up. Most of these ear-tags are failures. There is only one ear-tag that I have ever seen that would hold on a year, and that is the ringer—an ordinary hog-ringer made out of hog-wire, and a loop in the end of it, and a little numbered tag is fastened with that hog-ringer into the ear.

Prof. Cottrell: Will it stay when the hogs are turned out together in the pasture?

Mr. Maffet: It stays better than anything I have ever seen. They will come out and have to be replaced, and it requires some trouble to keep the herd marked. In hogs right now I use a little ear-punch. With a hog a very small punch will make a very large scar in a few years. If you have a punch that makes an ugly scar, you can't tell that from a weather scar or a wound or something of the kind, and if you have a round space in the edge of the ear you can always find it. The size of the mark is just about half as large as the end of a pencil in a little pig that is 2 days old. It will never mar its beauty.

Prof. Cottrell: Would you put that on a pig that you intended to show.

Mr. Maffet: Yes, sir; it won't hurt him. It is small. If it was a quarter of an inch into the edge of the ear, it would make a large place in the course of a few years, but just a little bit—an eighth or sixteenth of an inch—will never mar an animal. For the old animal you have to use the numbered tag, put in with the ringer, the regular hog-ringer, which is a piece of round wire that has a loop at the end and attaches in a circle.

Mr. Kirkpatrick: I have had some experience along this line that prompts me to reply to Professor Cottrell's question. I have tried everything and all manner of tags, including the tag with the ringer and the tag with hooks. I find they will stay in sometimes a month and sometimes a year. Probably on an average they won't stay in at all. There is just one plan that is very simple and which is perfectly effective, and if you will try it you will agree with me a year from now that it is a solution to the whole trouble. I use a Dana ear-punch. It is an oblong punch that they use for putting the sheep-tags in. It is the sheep-size punch I use, and it cuts an oblong hole. It is three-eighths to one-half an inch long, and a quarter of an inch wide. I use this in the pig's ear before weaning, while you can identify your pigs, during the time they are suckling their dam. For spring and fall litters I use the same combination. If I were handling as many as some, I couldn't do that at all; but I can always distinguish the difference between the fall and the spring litters, so I have no trouble in the multiplication and there are no complications. Commencing with my first litter, I use this punch in the tip of the right ear, and only just enough to make the scar one-third or not over one-half the depth of the punch; because if you cut deeper it will disfig-



The Old Reliable Anti-Friction Four-Burr Mogul Mills

No gearing; no friction. Thousands in use. Four-horse mill grinds 60 to 80 bushels per hour; two-horse mill grinds 30 to 50 bushels per hour. We make a full line of FEED MILLS, best ever sold, including the famous Iowa Grinder No. 2 for \$12.50. Send for free Catalogue. Manufactured and sold by the IOWA GRINDER AND STEAMER WORKS, Waterloo, Iowa.

ure the ear, and if you cut far enough in to let the edges of the ear come together, it will grow up and disappear; but if you cut it so it can not close, but not deep enough to disfigure the ear, it grows all right, and at no time, even when they are full grown, is this mark in the ear seriously objectionable. I can identify the sows in my herd now that are 2 or 3 years old, by the same system of marking.

Col. J. W. Robison: I have found that an indelible ink mark in a horse's ear works, and why not in hogs? Shave the hair off and shave the skin smooth, being careful not to cut too deep, and then with the stencil put on a number and it lasts as long as life. You can make the number permanent, and the number doesn't show unless you take up the ear; but at any time you can turn that ear up, and you have your number, and the number is in your book, your herdsman or anybody else can find out what that number is very readily. It always stays there. It can be applied just as the sailors use it with the needle, but it is the better way to get the regular pin-cers and put the numbers in and press it right into the ear. There is a little tube in it that injects the indelible ink at the same pressure, and it is quickly done.

Mr. Warner: We have for the last two years used this indelible ink that Colonel Robison speaks of, and we find it very satisfactory. Occasionally we have to run our cattle through a chute so we can get up to them and get hold of the ear, but we find the marks there. Occasionally it may get dirty and the ear has to be washed out, but we had no trouble in identifying them.

Mr. Cheney: Will it show on black hogs?

Mr. Warner: Is the inside of a black hog's ear black?

Mr. Cheney: Yes! (Laughter.)

Mr. Sutton: On black hogs and cattle that is a failure. The only way we can mark those is to use a different plan. But you can mark from one to a thousand or more with the combinations possible with this punch. There is no limit to the combinations you can devise with this punch to indicate any number you want. It punches out the ear a little bit, but this indelible mark need be only very light and unless you freeze the whole end of the ear off it stays forever, as suggested by Colonel Robison.

J. W. Robison: The color of the ink works very well on a black horse, and I have never seen it blurred. If it doesn't blur within twenty-four hours, it never does blur afterwards.

Report of Committee on Breeding Animals.

J. W. Robison presented the report of the committee on breeding animals, recommending that the present law be changed by adding the words "dam and," making it read as follows:

"The owner of any stallion, bull, or jack shall have a lien on the dam and offspring for the full value of the service of his stallion, bull, or jack in the get of said offspring for a period of one year after the foal or birth of said offspring."

TUESDAY EVENING SESSION.

The following list of papers presented at the last sessions of the meeting will appear in subsequent issues of the KANSAS FARMER:

"By-products of Corn," Roy B. Simpson, of the Glucose Sugar Refining Company, Chicago; "The Stockman's Finish," A. C. Halliwell, editor Daily Live Stock World, Chicago; "Class Advertising," by Frank E. White, Chicago; "Our 4,000-Acre Experiment Farm and Its Possibilities," by J. G. Haney, superintendent Fort Hays Experiment Station; "Railroad Transportation of Fine Stock—Its Evils," by C. W. Taylor, Pearl, Kans.

World's Fair Committee.

Shorthorns, S. C. Hanna, Howard; Herefords, C. A. Stannard, Emporia; Aberdeens-Angus, Chas. E. Sutton, Russell; Galloways, Geo. Kellam, Topeka; Polled Durhams, Hon. Case Broderick, Holton; Red Polls, Wilkie Blair, Girard; Jerseys and other breeds, M. S. Babcock, Nortonville. Berkshires, Geo. W. Berry, Topeka;

Poland-Chinas, H. W. Cheney, North Topeka; Duroc-Jerseys, H. A. J. Coppins, Eldorado; Chester Whites, D. L. Button, North Topeka; Tamworth, C. W. Freelove, Clyde.

Horses.—Draft breeds, H. W. Avery, Wakefield; Standard-bred and harness classes, O. P. Updegraff, Topeka.

Sheep.—E. D. King, Burlington.

Angora Goats.—N. A. Gwin, Lawrence.

The foregoing list is the chairman of the committee for the breed named. The president will select two other members for his committee, and in doing so will confer with the executive committee of the association.

Resolutions Adopted.

Whereas, This State has no dairy and food commission, although every State in the Union has such a commission to promote the interests of the dairy-cow and the legitimate traffic in pure milk, cream butter, cheese, and other products for consumption in this State, and

Whereas, It is to the interests of this association and the State at large that such a commission be formed at an early date, therefore be it

Resolved, That we heartily endorse the efforts of the dairy farmers and creamery interests of the State and the State Board of Health in their efforts to provide for this lack and hereby commend their bill to the consideration of the Legislature now in session, with the hope that an adequate, sensible and practical bill may be passed.

We, the members of the Kansas Improved Stock-Breeders' Association, in annual session assembled, wish to commend to the favorable consideration of President Roosevelt the appointment as a commissioner for the great international canal, our former associate and fellow breeder, United States Senator W. A. Harris.

His sterling manhood, and well-known ability as a civil engineer, a farmer stock-breeder, Congressman and United States Senator, are sufficient warrant for this request.

It is resolved further, that a copy of these resolutions be sent to President Roosevelt, to Senator Harris, and to each member of our delegation in Congress.

Resolved, That we, the Improved Stock-Breeders' Association of Kansas in the thirteenth annual convention assembled, do heartily recommend that a liberal appropriation be made by the Legislature now assembled for the purpose of holding a State fair, to be under the management and control of the State Board of Agriculture.

We would recommend that a committee of three be appointed to draft a bill to be presented to the State Legislature and Senate, to become a law, quarantining the shipping into this State of swine from the South, along the same lines as our cattle quarantine law.

Whereas, It has pleased divine Providence to remove from the list of names of this association since our last annual meeting our honored and worthy members, R. S. Cook, Wichita; W. O. Park, Atchison; R. J. Bergen, Julius Peterson, who had been loyal, faithful and intelligent workers in the fine-stock business of Kansas, therefore

Resolved, That we, their former associates and coworkers, in our thirteenth annual convention assembled, hereby express to each other, to the public and to the families of our departed brothers, our grief at the loss we have all sustained; that we as an association extend our heartfelt sympathies to those bereaved, and instruct our secretary to forward to the family of each departed member a copy of this preamble and resolution as a slight token and tribute of our sympathy.

H. W. CHENEY,
G. W. GLICK,
J. B. McAFEE,
Committee.

Vote of Thanks.

Upon motion of Mr. Kirkpatrick, a vote of thanks was extended to the speakers from a distance who have so well entertained the association with their able addresses.

Special Want Column

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time will be inserted in this column, without delay, for 10 cents per line of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it.

CATTLE.

FOR SALE—One dark red registered Shorthorn bull. Brookover Bros., Eureka, Kans.

FOR SALE—10 head of registered Hereford bulls, 6 to 20 months old, good individuals, and in good condition. Visitors met at trains if notified. Farm 20 miles southwest of Wichita. A. Johnson, R. F. D. 2, Clearwater, Kans.

FOR SALE OR TRADE—My Shorthorn herd bull, Meteor 1541, dark red, 3 years old, got by Imp. Lord Lieutenant 120019 out of 3d Sideria of Silver Spring. Also some young bulls. James Ely, Aulene, Kans.

FOR SALE—A few choice young Angus bulls at right prices. Address J. E. Long, Rock Creek, Kas.

FOR SALE—Red Polled cattle. I have been breeding these cattle seventeen years. No better anywhere. Twelve bulls to select from. D. F. Van Buskirk, Blue Mound, Kans.

FOR SALE—A choice herd of registered Holsteins. Six heifers coming 3 years old, and one yearling heifer from first prize cow. A 2 year-old first prize bull from M. E. Moore's unbeaten 1901 show herd. E. W. Melville, Eudora, Kans.

FOR SALE—My herd bull, Faron Knight 134946, 4 years old, dark red, weight 2,200 pounds, got by Gallant Knight 124468; also three Scotch-topped bulls, 14 months old, and a few cows with calves by side. J. P. Engel, Alden, Kans.

FOR SALE—A few choice Shorthorn heifers and young bulls. M. C. Hemmway, Hope, Kans.

FOR SALE—Ten young Hereford bulls from the Evergreen Farm herd, headed by Lee 121232. Address Pearl I. Gill, Great Bend, Kans.

FOR SALE—Guernsey bulls from best registered stock. J. W. Perkins, 423 Altman Building, Kansas City, Mo.

FIVE HEREFORD BULLS FOR SALE—Never used in a herd, they are in fine fix, at a bargain for cowmen. O. L. Thistler, Chapman, Kans.

FOR SALE—Six good Shorthorn bulls, four of them straight Cruickshanks; prices reasonable; now is your chance to get a good individual. H. W. McAfee, Topeka, Kansas.

HERD BULL FOR SALE—After February 1, will let my double standard Polled Durham bull go; bred in Illinois, good individual, good dehornor; also some young Shorthorn bulls for sale. G. K. Smith, Lincoln, Kans.

HORSES AND MULES.

FOR SALE—Fine 2-year-old black Wilkes driving mare, \$300, registered city broke trotter. Rhode Island Red cockerels \$2, \$3, and \$5 each. W. E. Clark, 1547 Logan St., North Topeka, Kans.

FOR SALE—One Percheron stallion, 3 years old; one Hambletonian stallion, 4 years old. Both registered. Very cheap. Address G. A. Stites, Hope, Kans.

FOR SALE—One 4-year-old black jack, 16 hands, weight 1,200 pounds. Fine jennette jack. G. W. Barnes, Agency, Mo.

FOR SALE—Two registered Percheron stallions, 4 years old, weight 1950 pounds; won second prize at Hutchinson. C. Spohr, Rome, Kans.

FOR SALE OR TRADE—For young cattle, one Percheron stallion, sure foal-getter. J. W. Holinger, Cottonwood Falls, Kans.

FOR SALE OR TRADE—One imported French Coach Stallion, dark brown, weighs 1,400 pounds, good breeder; will trade for jack or roan stallion. Can show co'ts from horse. H. J. Stevens, Wellington, Kans.

LEAVENWORTH CO. JACK FARM—34 head of jacks and jennets on hand. O. T. Corson, Potter, Kans.

FOR SALE—Seven jacks, three stallions. For further information call on or address F. W. Poo, Potter, Atchison County, Kansas. Barn three blocks north of depot.

FOR SALE OR TRADE—One of the largest and best Catillonian jacks in Kansas, black, with mealy points; 2 years old, Oct. 30, 1902. Would prefer to turn him for registered English Red Polled cattle. Address L. Box 53, Sterling, Kans.

FOR SALE—One bay Clydesdale stallion, 4 years old, weight 1,800 pounds. Write or telephone M. C. Pollard, Wakarusa, Kans.

FOR SALE—Hambletonian stallion, Wilkes family, 16½ hands, 1,200 pounds, sound, gentle, fine driver, single or double, big bone, gets large colts; also a 4-year-old bay mare by him. W. E. Clark, 1547 Logan St., Station A, Topeka, Kans.

FOR SALE OR EXCHANGE—Horse and jack. The horse is a dapple-grey Norman, weighs 1,600 pounds, and is 10 years old. The jack is a dark brown or black, stands 15 hands high, 9 years old. We would like to trade both horse and jack for black Percheron weighing not less than 1,900 pounds; or would sell or trade either horse or jack alone. We also have for sale 15 head yearling colts, sired by trotting horse, cheap for cash. Write for prices. Stormont Bros., Dighton, Kans.

FOR SALE, CHEAP—One 3-year-old black jack, and red Shorthorn bulls and heifers; show stuff. George Manville, Dearborn, Mo.

PROSPECT FARM—CLYDESDALE STALLIONS, SHORTHORN CATTLE AND POLAND-CHINA HOGS. Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kansas.

MISCELLANEOUS.

WANTED—Agents to sell books and membership. \$3 per day easily earned. Eddie Feyt, Belvue, Pottawatomie Co., Kans.

FOR SALE—No. 4 Sharples Tubular cream separator, capacity 450 pounds per hour, cost \$125, used six months; in good condition. Cheap for cash. Continental Creamery Co., Topeka, Kans.

FOR SALE CHEAP—Pedigreed Scotch Collie pups. W. H. Richards, V. S., Emporia, Kans.

WANTED—Man with family to work on farm by the year. Must be practical farmer and stockman. Place good for years to right man. Farm two miles from city. Address 703 Harrison St., Topeka, Kans.

PAINT One cent a pound. Receipt. 10 cents. Red-Rough K. Co., Detroit, Mich

SWINE.

WASHINGTON LAD—The greatest and best Poland-China I have ever owned. Some choice gilts sired by him now safe in pig; for sale, price \$20 to \$25 each, bred to peer of this great sire. Spring and summer males all sold. M. F. Tatman, Kaw Valley Herd Poland-Chinas, Rossville, Kans.

FOR SALE—Berkshire boars, by son of Imported Commander and King Blossom; also bred gilts. O. P. Updegraff, Topeka, Kans.

FARMS AND RANCHES.

FREE 200 printed farm and ranch descriptions in 5 booklets, 55 m. from K. C. Prices, maps, statistical book. Write G. Winders, Ottawa, Kans.

FOR SALE—70-acre farm 5 miles from city, all good farm land, 20 acres bottom, running water, good 6-room house, small barn, and other buildings, ½ mile to school, on main and mill route; \$6,500. We have many other farms large and small. Write us about them. Moore & Jones, 600 Kansas Ave., Topeka, Kans.

ALFALFA STOCK FARM—My stock farm of 480 acres is now for sale at \$25 per acre; will give time on \$4,000 at 6 per cent interest; contains 100 acres of splendid bottom land for alfalfa and corn, fine timber and everlasting, good water, equally well divided in pasture, hay and plowed land; good house, large barn, 64 by 80, and other buildings; lies 7 miles northwest of Yates Center, Kans. Write direct to owner and save commission. Lewis Reep, Yates Center, Kans.

FOR SALE—160, \$20 per acre. Write D. W. Bowman, Burr Oak, Jewell Co., Kans.

WANTED TO SELL OR RENT—To a good farmer and stockman, 800-acre ranch, good land, well improved, he to take an interest in the stock and products of the farm for his pay. J. C. Hughes, L. B. 302, Hartford, Kans.

FOR SALE—160-acre farm, 7 miles from Topeka, good road, 100 acres in cultivation, 40 acres creek bottom, 30 acres meadow, 25 acres pasture, 2 acres bearing orchard, 3 acres timber, running water, all good land, two good wells, 6-room house, cellar, good bank barn, 32x40, hold 30 tons loose hay and 1,000 bushels grain. Other cribs and granary. One mile from school and church, \$6,500. We have many other farms large and small. Write us about them. Moore & Jones, 600 Kansas Ave., Topeka, Kans.

FOR RENT OR SALE—Two sections of good pasture land, well watered and well fenced, six miles north of Ogalala, Trege County, Kans. Skinning station at Ogalala. For particulars address, W. J. Rogers, Clyde, Kans.

FOR RENT—Farm of 432 acres, cash rent, well improved. For particulars, write to A. C. Krape, R. R. 2, Garnett, Kans.

FOR SALE—Farms and ranches in central and western Kansas. We have some great bargains in western ranches. Write us. R. F. Meek, Hutchinson, Kans.

JOHN G. HOWARD—Dealer in farms, ranches and pasture lands. Always the best bargains in Real Estate. Write me what you want to buy or sell. My commission is only 2½ per cent. Emporia, Kans.

FOR SALE—480 acres of wheat and cattle farm land, 160 acres of it in wheat, 10 acres in alfalfa. No buildings. Sure to water. Good neighborhood. Price \$2,400. Write me at Jetmore, Kans., for particulars. A. T. Eakin.

FOR SALE—320 acres fine pasture land in Wabash County, 2 miles from Hallfax, good grass and never-falling water. H. R. Rice, Tecumseh, Kans.

POULTRY.

FOR SALE—Barred Plymouth Rocks and Brown Red Pit Games. Prices reasonable. Address Mrs. Porter Moore, R. R. 4, Parsons, Kans.

DEAR FRIENDS AND FORMER PATRONS—Our twelfth annual exhibition of the great Wichita Poultry and Pet Stock Show has just closed, the largest and finest show ever held in the southwest. I again had on exhibition a number of my Light Brahmas in competition with 79 of the finest birds in the land. I got 1st on cockerel, 1st on hen, 2d and 3d on pen, 3d on cockerel, 3rd on pullet. I now have stock scoring from 90 to 94 that I offer to ship anywhere on a guarantee to give satisfaction or money returned. I offer 10 cockerels at \$5 each, that will score about 90 to 91, subject to examination at express office; if not as represented return and money will be refunded. Mrs. J. R. Kenworthy, Cottage Home Poultry Yards, Wichita, Kans.

FOR SALE—Single comb Brown Leghorn cockerels, \$1 each. And Poland-China bred sows and gilts. Write Adam Andrew, Girard, Kans.

DO YOU WANT LAYERS?—It's in the blood. Buy cockerels of my heavy laying strains of Black Minorcas, and White and Brown Leghorns, \$1.50 each. Also eggs for hatching, \$1.50 per 15. Satisfaction guaranteed. James C. Jones, Leavenworth, Kans.

FOR SALE—Mammoth Bronze turkeys, with large bone, fine shape and plumage; three pens not skinned. Address Mrs. T. M. Fleming, Route No. 3, Fontana, Kans.

SEEDS AND PLANTS.

STRAWBERRY PLANTS that grow, \$3 per 1,000, best varieties. Write to Geo. Churchman, Parkerville, Kans.

FOR SALE—Speltz, \$1.25 per bushel, (limited), bags free. Abe Hertje, Tonkawa, Okla.

ALFALFA SEED wanted in exchange for choice Poland-Chinas. J. H. Taylor, R. F. D., Chapman, Dickinson County, Kans.

200,000 FRUIT TREES! Wholesale prices; new catalogue. Baldwin, Nurseryman, Seneca, Kans.

PATENTS.

J. A. ROSEN, Patent Attorney, 418 Kansas Avenue, Topeka, Kansas.

Shorthorn Cattle

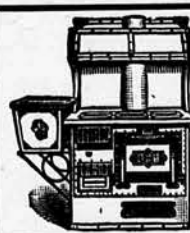
For immediate sale, 12 bulls ready for service, and 12 bull calves. Also 20 cows and heifers, 1 to 7 years old. Give me a call, or address,

H. R. LITTLE, Hope, Kans.

Ten Car-Loads Scrap Iron

We want ten car-loads of scrap iron, machinery castings, etc., to make our Subsurface Packer. Must have at once.

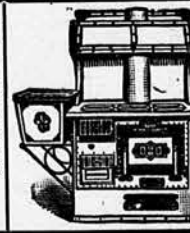
TOPEKA FOUNDRY, Topeka, Kans.



ON CREDIT! ON CREDIT!

ELEGANT CENTURY steel ranges, with large reservoirs, from \$15 to \$22.50, retail for three times our price. Cash or easy monthly payments. We trust honest people located in all parts of the world. We are the only manufacturers who sell direct to consumers. Other advertisers are only dealers. We let you use the range while you are paying for it; that speaks for the quality. Write for free catalogue and testimonials. Address

CENTURY MFG. CO., Dept. 135, East St. Louis, Illinois.



PUBLIC SALE!

....OF....

Duroc-Jersey Brood Sows.

"The Famous Reds."

Thursday, Feb'y 5, 1903.

BEGINNING AT 12.30 P. M.

At my farm, just southeast of Fairview. I will offer for sale six tried Sows, nine fall Gilts, and nineteen spring Gilts. All bred with the very best males.

TERMS: Six months' time on sums of \$15 and upward without interest if paid when due, and 10 per cent from date of sale if not so paid. Two per cent discount for cash on credit amounts. For Catalogue, address

J. B. DAVIS, Fairview, Brown County, Kansas.

AUCTIONEERS: COL. ELI ZIMMERMAN, COL. M. W. HARDING.

The Stray List.

Week Ending January 8

Greenwood County—C. D. Pritchard, Clerk. STEER—Taken up by L. H. Kinsel, in Quincy tp. (P. O. Quincy), Dec. 13, 1902, one light red steer, 2 years old.

Lyon County—H. E. Peach, Clerk. COW—Taken up by J. A. Sprague, 4½ miles northwest of Emporia, Dec. 13, 1902, one red cow, dehorned, 4 years old, silt in brisket.

Barber County—J. E. Holmes, Clerk. COW—Taken up by T. A. Coss, in Valley tp. (P. O. Isabel), Nov. —, 1902, one black cow, right ear split, left ear cropped, branded V 2 S heart on left side and hip; valued at \$22.50.

Marshall County—James Montgomery, Clerk. MARE—Taken up by W. A. Yeager, in Cottage Hill tp. (P. O. Blue Rapids), one bay mare with black mane and tail and black feet up to fetlocks. Supposed to be about 1 year old last spring. Rather small.

Jefferson County—R. H. Delbert, Clerk. COW—Taken up by F. G. Stark, in Fairview tp., on Dec. 4, 1902, one red cow or heifer, crumpled horns, some white on belly, flank, and tail, also a small white spot on left leg above knee, and with ear either cut or frozen off; valued at \$25.

Week Ending January 15.

Shawnee County—A. Newman, Clerk. HEIFERS—Taken up by V. Anderson, in Mission Tp., April 30, 1902, one light red muley heifer 2 years old, square cut in left ear; also one dark red heifer, 1 year 6 months old, silt in right ear.

Wilson Co.—C. W. Isham, Clerk. COWS—Taken up by John S. Gilmore, in Fredonia, Nov. 17, 1902, one pale red muley cow, with underbit in right ear and swallow-fork in left ear, white spot in forehead, lower half of tail white, small white spot on back; valued at \$20. Also one dark red muley cow; valued at \$20.

STEER—Taken up by G. H. Sutcliffe, in Cedar Tp., Nov. 28, 1902, one red and white spotted steer, underbit in left ear; valued at \$15.

Comanche Co.—T. M. McIntyre, Clerk. COW—Taken up by L. L. Stubbs, in Nescaunga tp., Dec. 13, 1902, one red and white cow, 3 or 4 years old; valued at \$25.

Week Ending January 22.

Cowley County, Geo. W. Sloan, Clerk. CATTLE—Taken up by J. C. Gardner, in Silver Creek tp., Nov. 22, 1902, one brindle cow, about 800 pounds, diamond on left hip; valued at \$18. Also one red steer, about 900 pounds, branded M on left hip; valued at \$30. Also one roan steer, about 900 pounds, both ears cropped; valued at \$30. Also one red steer, about 900 pounds; valued at \$30.

Montgomery County, S. McMurty, Clerk. STEER—Taken up by G. P. Dalley, in Caney tp. (P. O. Havana), one red steer, 1 year old, silt in right ear; valued at \$15.

Elk County, G. J. Sharp, Clerk. STEER—Taken up by E. H. Russell, in Liberty tp., one red steer, 2 years old, two hog-rings in right ear; valued at \$30.

Miami County, Geo. Osborne, Clerk. HOGS—Taken up by M. Walz, in East Valley tp., one black sow, left ear torn, right ear torn off, weight 140 pounds. Also three black and white spotted and four black pigs; valued at \$12.

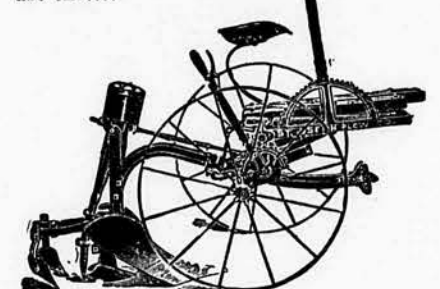
Meadowbrook Poland-Chinas

Herd boars; American Royal and choice goods for sale. Bred sows and gilts. Also two boars by Corrected. Quality and prices are right. Call, or address

J. R. Killough & Sons, OTTAWA -:- -:- KANSAS.

SOME PEOPLE CALL IT LUCK

The successful farmer says it is modern methods that grows big crops of corn every season. The largest corn raisers in the world use the....



"Famous" St. Joe Listers and Disc Cultivators

The LISTERS scour always and run deep. The St. Joe Disc Cultivators for listed corn can be adjusted for three times over the corn plowing 20 acres a day better than you can hoe it. Send for Catalogue. Department K.

St. Joseph Plow Co., St. Joseph, Mo.

PILES

Fistula, Fissures, all Rectal Diseases radically and permanently cured in a few weeks without the knife, cutting, ligature, or caustics, and without pain or detention from business. Particulars of our treatment and sample mailed free.

Mr. M. McCoy, Gogonac, Kans., Captain Company A, Fifteenth Indiana Infantry, writes: "Hermit Remedy Company, Dear Sirs:—I have doctored for piles since the Civil War—thirty-six years—and am now glad to report that after using your treatment for a few weeks I am completely cured. I believe you can cure any one, for a man could not be in a much worse condition than I was and live, and I am duly grateful to you. Respectfully,

"M. MCCOY." We have hundreds of similar testimonials of cures in desperate cases from grateful patients who have tried many cure-alls, doctors' treatments, and different methods of operation without relief. Ninety per cent of the people we treat come to us from one telling the other. You can have a trial sample mailed free by writing us full particulars of your case. Address, HERMIT REMEDY COMPANY, Suite 736, Adams Express Building, Chicago, Ill.

50-POLAND-CHINA-50 BROOD SOWS

At Auction, at Live Stock Pavilion, Kansas City, Mo
SATURDAY, FEBRUARY 7, 1903.

FROM THE HERDS OF
T. N. LANGAN & CO., Clifton, Ill.
W. H. MAST, Ogden, Ill.
J. W. WAMPLER & SON, Brazilton, Kans

Sows bred to KEEP ON 61015, Champion, Chicago, 1901; KEEP ON 2d 67805, Champion, Chicago, 1902; PERFECTION E L 71635, First, Ohio State Fair, 1902; PERFECTION LIKENESS 2d 21733, First, Chicago, 1902; PERFECTION LIKENESS 67199, First, Illinois State Fair, 1898, and full brother to the 1902 champion Mischief Maker and Heart's Delight. Sows are by first prize winners and champions at the best shows in America and bred to the above prize-winning boars. Write for catalogue to

J. V. COTTA, Sale Mgr., Clifton, Ill

AUCTIONEERS
H. O. Correll, D. P. McCracken, J. N. Harshberger, W. D. Ross.

PUBLIC SALE OF MATCHLESS POLAND-CHINAS

Royal Queens From the Invincible Herd

AT MASTIN, KANSAS, ON FEBRUARY 6, 1903. . . FROM WINN & MASTIN'S WORLD FAMOUS HERD

Of 50 head of yearlings and 2 year-old sows sired by the imperial cabinet of sweepstake boars, Proud Perfection, Corrector, Perfect I Know, Keep On, Chief Perfection 2d, Perfect Perfection, Missouri Sunshine, Ideal Sunshine, Missouri's Black Chief, and other noted boars. Sows bred to MISCHIEF MAKER, the sweepstake boar at both Iowa and also at American Royal this year, and sired by a sweepstake boar; also to Proud Perfection, Corrector, Corrected, Missouri's Sunshine, Lamplighter, Gay Monarch, the greatest living son of Perfect I Know.

The Show Blood of Herd on Tap.

The Whole Herd is Immunized With De Vaux' Antitoxin.

This bunch of sows have never been equalled in evenness by us before and you know we have had pretty good ones. They are bred for February and March farrow. They will be in the finest possible shape to do buyers greatest good. Everybody cordially invited to be present. Write for catalogue for full particulars and mention Kansas Farmer.

GEO. M. CANTRALL, CLERK.
Cols. D. P. McCracken, H. O. Correll, Aucts.

WINN & MASTIN, Mastin, Kansas.

THE GOLD STANDARD MINING COMPANY

GREEN MOUNTAIN FALLS, COLORADO.

1,800,000 Shares. 600,000 Treasury Reserve. Full Paid and Non-Assessable.

OFFICERS: C. C. Hiron, President; J. W. Thurston, Vice President; R. W. Squires, Secretary and Treasurer.

DIRECTORS: J. W. Thurston, Topeka, Kansas, Cashier Bank of Topeka; Hon. A. L. Williams, Topeka, Kansas, ex-Attorney General of Kansas and for twenty years at the head of the law department of the Union Pacific railroad; Prof. W. M. Davidson, Topeka, Kans, Superintendent of the City Schools of Topeka, and Treasurer National Educational Association; E. M. Purdy, Colorado Springs, Colo.; R. W. Squires, Green Mountain Falls, Colo.; O. P. Hiron, Green Mountain Falls, Colo.; C. C. Hiron, Green Mountain Falls, Colo.

The Company's property consists of about 60 acres of land in the highly mineralized territory on the northerly slopes of Pike's Peak and is fifteen miles from the city of Colorado Springs. Seven veins of gold bearing rock cross this property and croppings of ore at the surface show excellent gold values. In the Cripple Creek District the best ores are first encountered at a depth of from 200 feet to 600 feet.

The Gold Standard shaft is now 290 feet deep, and the work is being pushed day and night. Some very rich samples are being found daily and the Superintendent of the mine has confidence in his ability to make the mine a dividend payer in less than three months. When that desirable condition is realized the stock will easily be worth \$1 a share and perhaps, eventually, many times that amount.

In September, last, a fine steam hoisting plant was purchased and installed. At the same time a large corrugated iron shaft house was built, besides many small improvements, too numerous to mention. All of these improvements have been paid for and the company have money in the treasury. In making these improvements the strictest economy has been observed. No member of the company draws a cent of salary, although both its President and Secretary have devoted their entire time to the company's affairs since becoming a corporate institution. It is improbable that a large amount of stock will have to be sold before the mine is in a paying condition, and the opportunity to get in on the ground floor will be limited to a short time. The stock is now selling at 30 cents per share, regardless of the amount taken. The purchase of a few hundred or a few thousand shares right now will be sure to prove a wise investment and will yield quick returns. No certificate will be issued for less than fifty shares.

Remit by draft or P. O. money order, when practicable.

THE GOLD STANDARD MINING COMPANY, Green Mountain Falls, Colorado.

Plant Trees for Posts

Catalpa, Osage, and Russian Mu'herry Seedlings, one year old for planting. The Catalpas are from seed selected from known Speciosa trees. Write for prices, stating number wanted.

PETERS & SKINNER, North Topeka, Kans.

OUR ADVANCE AGENT \$10.50

Just to make your acquaintance we offer a 16-in. Double Board, Steel Beam Plow, Hard as Glass all over for only \$10.50. This is less than any dealer can buy this plow of any factory. We make cheaper plows, but nothing better can be made at any price. Guaranteed in every way or money refunded. Send for Big Free Catalogue of Huggies, Harness, 6-Hole Steel Range with high closet, \$22.64; Tooth Lever Harrow \$7.80; Disc Harrow, 12-16, \$17; Sulky and Gang Plows, Celebrated Hancock Disc Plow, 1000 other things. Write now \$1.50 extra and get ready for spring work. Address HAPGOOD PLOW CO., Box 537, ALTON, ILL.

SEED CORN TESTED TRIED TRUE

SEND TWO CENT STAMP FOR SAMPLES AND BOOK ON CORN-GROWING
J.B. ARMSTRONG & SONS, SHENANDOAH, IOWA.

C. M. Irwin. S. C. Duncan, Mgr. ELM BEACH FARM, WICHITA, KANS.

BREEDERS OF

Poland-China Swine



We have recently bought out the great R. S. Cook Champion Herd and combined same with the Elm Beach Herd, making us in a position to furnish swine of the highest grade. Poland-Chinas of all ages and either-sex for sale. Write or come and see us. Farm is four miles north on Arkansas Avenue.



"THE HIAWATHA" Is the most successful hatcher. Its wonderful success and popularity is due to superior construction and its scientific principles of heat and ventilation. IT NOT ONLY HATCHES GOOD STRONG CHICKS, BUT LOTS OF THEM. Our machines are guaranteed—your money back if you are not satisfied. They are strictly high grade in every detail. A first-class machine at a reasonable price. Send for our catalogue. It is free.

"THE HIAWATHA" MFG. CO., Hiawatha, Kas., U. S. A.

SPALDING'S COMMERCIAL COLLEGE, NEW YORK LIFE BLDG. KANSAS CITY, MO.

37th year. Practical instruction given in bookkeeping, shorthand, typewriting, telegraphy, and English Branches at low rates. 20 Rooms. 16 teachers and lecturer. Free employment bureau. Illustrated Catalogue "E" sent free on request. J. F. Spalding, A. M., President.

GREAT COMBINATION BREEDERS' SALE

...REGISTERED...

SHORTHORNS AND HEREFORDS

TO BE HELD DURING THE CATTLEMEN'S CONVENTION AT OKLAHOMA CITY,
TUESDAY, WEDNESDAY, AND THURSDAY, FEBRUARY 10, 11, AND 12, 1903.

Commencing at 1 O'clock P. M. Each Day:

On Tuesday and Wednesday, FEBRUARY 10 AND 11, 80 Head of Herefords

Consisting of 40 Bulls of serviceable age and 40 Cows and Heifers, will be sold at auction. They are consigned by the following breeders:

Gudgell & Simpson, Independence, Mo.; Scott & March, Belton, Mo.; W. N. Shellenbarger, Oklahoma City, Okla.; Mrs. C. S. Cross, Emporia, Kans., and C. A. Stannard, Emporia, Kans.

These are strictly a high-class lot of cattle and we ask you to come and see them.

On Thursday, February 12, 60 Head of Shorthorns

Will be sold—30 head from the famous Clover Blossom Herd, owned by Geo. Bothwell of Nettleton, Mo., and 30 head from the well-known Silver Creek Herd, owned by J. F. Stodder of Burden, Kans. The lot consists of 20 choice bred Bulls, from 12 to 20 months old, some of them show Bulls, and 40 Cows and Heifers, bred to, or with calves at side, by such bulls as Imported Wanderer's Last and Imported Aylesburg Duke.

For Catalogue of Shorthorns, address

J. F. Stodder, Burden, Kansas.

Auctioneers: Col. R. E. Edmonson, J. W. Sparks, Lafe Burger.

For Catalogue of Herefords, address

C. A. Stannard, Emporia, Kansas

Reduced rates on all railroads to Cattlemen's Convention.



JANUARY COMBINATION SALE

...OF...

HEREFORDS.



150 REGISTERED HEREFORDS 150

WILL BE SOLD AT

Kansas City, Mo., On January 26 and 27, 1903

There will be a large offering of good, strong, thrifty Bulls ready for immediate service, which will afford the ranch man and small farmer, as well as the older breeders, a rare opportunity to purchase a single animal or car load. There will also be some of the finest young females that ever entered the sale ring.

CONTRIBUTORS

Jones Bros Comiskey, Kans.
E. H. Brewster, Wibaux, Mont.
W. C. Shumate, Eskridge Kans.
F. A. Eagle & Son, Rosemont, Kans.
J. W. Lenox, Independence, Mo.
G. W. Ross, Weverly, Kans.
S. Drybread, Crestello, Kans.

Chas. Specht, Rosemont, Kans.
T. J. Rowe & Son, Rowena, Mo.
Peter Mecht Tipton, Mo.
R. H. Hazlett, Eldorado, Kans.
J. K. Rosier, Burlet, Mo.
D. L. Taylor, Sawyer, Kans.
Makin Bros., Lees Summit, Mo.

Lowell, Barroll & De Witt Live Stock Co., Denver
A. E. Meisker, Lone Star, Kans.
Noble Bros., Otterville, Ill.
J. R. Noble, Otterville, Ill.
H. A. Schwandt, Laclede, Kans.
J. W. Wampler & Son, Brazilton, Kans.
Gudgell & Simpson, Independence, Mo.



You may expect to find good cattle and you can get them at your own price.

FOR CATALOGUES, ADDRESS

C. R. THOMAS, Secretary, Stock Yards, CHICAGO, ILLINOIS



POULTRY BREEDERS' DIRECTORY

FOR SALE—A fine lot of Black Langshan cockerels for sale. Some with score cards by Judge Rhoades. James Bottom, Onaga, Kans.

POULTRY FARM—Breeders of Light Brahmas, Plymouth Rocks and Partridge Cochins, took first, second, and third on Light Brahmas; first, second, and third on Partridge Cochins at Fort Scott show. A few good cockerels for sale. Eggs in season, \$1.50 per 15. G. W. Shuman, Fort Scott, Kans. Rural Route No. 1.

FOR SALE—Pure-bred B. P. Rock cockerels, \$1.50 to \$2. Mrs. Ada Ainsworth, Stilwell, Kans.

SIXTY MAMMOTH BRONZE TURKEYS—Two separate pens, headed by a 42-pound tom. Also Pekin ducks. Address Mrs. Fred Cowley, Columbus, Kans.

FOR SALE—Barred Plymouth Rock cockerels, \$1.25 each. J. A. Sawhill, Edgerton, Kans.

FOR SALE—Barred Plymouth Rocks and B. B. Red Games. Prices reasonable. Address Mrs. Porter Moore, R. R. 4, Parsons, Kans.

FOR SALE—Choice White Wyandottes and White P. Rock cockerels. R. F. Meek, Hutchinson, Kans.

MRS. E. F. NEY—Breeder of WHITE WYANDOTTES, Bonner Springs, Kansas. Cockerels, \$1.00. Eggs in season.

COCKERELS—Indian Games and Black Langshans, farm-raised, price \$1 each, if taken soon. H. Baughman, Wymore, Neb.

SCOTCH COLLIES—Some fine females, from registered stock, for \$4. A. P. Chacey, R. R. 1, North Topeka, Kans.

SCOTCH TERRIERS—Finest bred in this country. Heather Prince, the champion of Scotland, and sire of Nosegay Foxglove, out of the champion imported Roman Ringlet, best service at our kennels. G. W. BAILEY & BRO., Seattle, Kans.

I HAVE some very fine pedigreed Scotch Collie pups for immediate shipment. I also have some extra fine B. P. Rock hens and young cockerels will sell at a bargain if taken soon, as I need the room. Can furnish pairs, trios, or pens headed by a male no kin to hens or pullets. W. B. WILLIAMS, Stella, Neb.

For Sale: 150 Pure-Bred Light Brahmas
Best birds we have ever offered. Prices are right and our stock is just what you want. Write us just what you want and will quote best prices.
F. W. DIXON, HOLTON, KANSAS.

DON'T SET HENS the same old way while a 200 Egg Natural Hen Incubator Costs But \$3, other sizes equally as low. Over 125,000 in use. Indispensable to anyone who keeps a hen. Our Patents protected against infringement. Agents wanted everywhere, either sex, no experience necessary. Catalogue telling all about and 25c Lise Formula FREE if you write today. NATURAL HEN INCUBATOR CO., 898, Columbus, Nebraska.

VICTOR INCUBATORS
Hatch every fertile egg. Simplest, most durable, cheapest first-class hatcher. Money back if not positively as represented. We pay freight. Circular free; catalogue 6c. Geo. Ertel Co., Quincy, Ill.

\$12.80 For 200 Egg INCUBATOR
Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day. G. O. H. STAHL, Quincy, Ill.

RELIABLE
is a word that stands for the best Incubators and Brooders in the world. Each has special distinguishing features. Send 10c postage for Book No. 10, just out, giving guaranty of money back if incubator is not satisfactory. Reliable Incubator and Brooder Co., Box B 62 Quincy, Illinois.

DON'T PAY MONEY
for an incubator you have not tried, when you can get the best, the Royal Incubator, on 30 days free trial. It is entirely automatic and certain in results. Try one. Catalogue free. ROYAL INCUBATOR CO., Dept. 83 Des Moines, Iowa.

BURR INCUBATOR
and Brooder on 30 days' trial. Improved automatic regulator keeps the temperature exactly right. No guesswork. No complications. Perfectly automatic. Takes care of itself. Your money back if you say so. Catalogue free. Burr Incubator Co., Box S 23, OMAHA, NEBR.

KLONDIKE INCUBATORS
No incubator is so sure as the Klondike. It is simple, has no delicate parts, is a perfect self-regulator, is automatic in all its actions and can be depended upon at all times. For free catalogue and poultry guide, address Klondike Incubator Company, Box 978, Des Moines, Ia.

The Automatic Sure Hatch

30 Days Free Trial
of the best incubator ever made. New automatic, direct-action regulator—greatest improvement ever made in incubators. No complications. Sold at reasonable price. Don't pay double for out of date machine. Large illustrated catalogue free. SURE HATCH INCUBATOR CO., Clay Center, Neb. or Columbus, Ohio.

DUFF'S POULTRY

Barred Plymouth Rocks, White Plymouth Rocks, Buff Cochins, Partridge Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, Brown Leghorns, and Belgian Hares. First-class Standard Stock of Superior Quality. Stock For Sale. Eggs in Season. Write Your Wants. Circular Free. A. H. DUFF, Larned, Kans.

BEES If interested in bees subscribe for the **Progressive Bee-Keeper** 50c per year. Sample copy free, also copy of catalogue of Bee Keepers' Supplies. LEAHY CO., HIGGINSVILLE, MO.

LIVE STOCK AUCTIONEERS.

CAREY M. JONES,
Live Stock Auctioneer
Davenport, Iowa. Have an extended acquaintance among stock breeders. Terms reasonable. Write before claiming date. Office, Hotel Downs.

Live Stock Auctioneer.

COL. J. N. HARSHBERGER,
Lawrence, Kansas.

Special attention given to selling all kinds of pedigreed stock; also large sales of grade stock. Terms reasonable. Correspondence solicited. Mention Kansas Farmer.

Jas. W. Sparks,
LIVE STOCK AUCTIONEER
MARSHALL, Mo.
Posted on pedigrees, quality, and values. Am selling for the best breeders in America. Terms very reasonable. Write before fixing dates.

Lafe Burger
Wellington, Kans..
LIVE STOCK AUCTIONEER
SALES MADE ANYWHERE. I am booked for some of the best combination sales of high-class stock held in America. Posted on pedigrees and individual merit. Wide acquaintance with breeders in Kansas, Oklahoma, Indian Territory, and Texas. Wire or write for dates.

R. L. HARRIMAN,
Live Stock Auctioneer
Bunceton, Mo.

SALES Made Everywhere. Thoroughly posted and up-to-date on breeding quality and values. Have a large acquaintance among and am selling for the best breeders in the country. Terms low. Write for dates.

CHEAP FARM LANDS
Located on the Yazoo & Mississippi Valley R. R. in the Famous
YAZOO VALLEY

Of Mississippi—Specially Adapted to the Raising of
COTTON, CORN, CATTLE, AND HOGS.

SOIL RICHEST IN THE WORLD

WRITE FOR PAMPHLETS AND MAPS.
E. P. SKENE, Land Commissioner,
Central Station, Park Row, Room 456,
CHICAGO, ILL.

E. L. HUSTON, Argentine, Kas.,
Breeder of

WORLD'S BEST, REGISTERED O. I. C. Swine

Have a few September boars for sale. Member of the O. I. C. Breeders' Association.

L. W. HAMILTON, KEARNY, NEB.
Has a few CHOICE

POLAND-CHINA SOWS
bred, and for sale, to Grand Chief Tecumseh 'd 25555 the first and sweepstakes winner of Nebr. State Fair

When writing advertisers, please mention this paper.

BRED SOW SALE

AT FARM, 4 MILES NORTHEAST OF
...MORROWVILLE, KANSAS, ON....

MONDAY, FEBRUARY 2, 1903.

40 HEAD OF SOWS AND 6 BOARS.

Choice Poland-China Sows and Gilts, bred. 20 sired by Onward Perfection, by Chief Perfection 2d, and bred to Sunshine Success, by Ideal Sunshine, the great eastern hog.

Twenty tops by good sires, out of a dozen good herds and bred to Onward Perfection and Sunshine Success. This breeding is at the top—nothing better.

There are some top-notchers in this offering, and you will not be disappointed when you see them. The sale will be held in a warm building. Everything will be done to make buyers comfortable. Hot coffee and lunch at 12. Our Catalogue is ready and will be mailed out to all who ask for it. It gives all information intending purchasers wish to know. Send bids to Auctioneers in my care and you will be treated fair.

L. W. LEONARD, F. WRIGHT.
AUCTIONEERS.

TOM EVES.....CLERK
Mention Kansas Farmer.

G. E. Fuller,
MORROWVILLE, KANSAS.

..Cheap Trip..
California

In Pullman Tourist Sleepers on fast Santa Fe trains; also FREE CHAIR CARS, in charge of an experienced passenger director, who looks after the comfort of the passengers, points out places of interest, etc.

New cars, courteous employees, excellent meals; the cheap and comfortable way to Los Angeles and San Francisco. Address

T. L. KING, G. P. & T. A.,
Or **T. M. JAMES,** Topeka.
830 KANSAS AVENUE, NORTH TOPEKA.

WE WILL SAVE YOU FROM \$10 TO \$45 on almost any kind of machine. Sold direct from factory saving all salesmen's expenses and dealers or agents' exorbitant profits. Our machines have modern features not possessed by any others. Ball-Bearing Stand, finest attachments FREE. Latest design woodwork, the stylish well front, polished oak. Guaranteed to be better than machines sold for twice the price. SHIPPED ON APPROVAL anywhere in U. S. Guaranteed 20 years.

ARLINGTON GEM \$25.00 Regular 5 drawer Drop Head \$11.25
Including all attachments.

ARLINGTON QUEEN 1st Tension and Needle Bar same as Slinger, Wheeler & Wilson and Standard. \$35.00 Regular 5 Drawer Drop Head \$14.75
with fine Marquetry Decorations. \$65.00 Regular 5 Drawer Drop Head \$17.75
\$45.00 Beautiful 1 Door Desk Cabinet \$16.45. \$75.00 Automatic Lift, Drop Cabinet \$19.75
\$45.00 Beautiful 2 Door Desk Cabinet \$28.75
Write for our Catalogue, 64 pages beautifully illustrated. Contains all points about buying Sewing Machines right—FREE. CASH BUYERS' UNION, Dept. B64, CHICAGO.

The National Cornstalk Remedy

The greatest discovery of the age, prevents stock from dying of cornstalk disease. The remedy is a real preventive. We have such absolute confidence in it that we require no money from buyers until they have fed and tested the remedy. If it is not as represented you pay nothing. We want every farmer to try our remedy. It never fails when fed with salt as directed. Order a pall to-day, which will protect 60 head for the season. The price is \$10.00 per pall. Address

NATIONAL CORNSTALK REMEDY CO.,
Jas. R. Muir, Manager. Range Block, Omaha, Nebraska.

...WE...
HAVE REAL ESTATE FOR SALE

In nearly every county in the U. S. We are represented by 10,000 Real Estate Agents. \$50,000,000 worth of property. The largest Real Estate list in the world. A Gigantic Combination—not a trust. What do you want to buy? We can save you money and time. If you want to sell or buy write us and describe what you want and where you want it.

W. W. GAVITT & CO., Bankers and Brokers,
Gavitt Block, TOPEKA, KANS., U. S. A.

S. G. CARTER
GENERAL AGENT
REAL ESTATE AND LIVE STOCK
Miami, Texas.

If you want to buy feeders or any kind of cattle or a farm or ranch in Texas, see or write to me. No trouble to answer questions. References: Emporia National Bank, Emporia, Kans.; First National Bank, Amarillo, Texas; Lee & Co., Bankers, Miami, Texas.

5 TON WAGON SCALE \$35.00
SENT ON TRIAL FREE
CATALOGUE FREE
AMERICAN SCALE COMPANY
503 MASS. BLDG. KANSAS CITY, MO.

WANTED!
A bright man, with light team, in every county. Steady work and good wages to the right man. Reference required.
For particulars address, **KOCH V. T. CO.,** Winona, Minn.

FARMERS
who wish to better their conditions are advised to write for a descriptive pamphlet and map of Maryland, which is being sent out free of charge by
THE STATE BUREAU OF IMMIGRATION OF MARYLAND.
Address:
Mr. H. Badenhop, Secretary,
Merchants Nat'l Bank Bldg., Baltimore, Md.

LIGHTNING WELL MACHY
IS THE STANDARD
STEAM PUMPS, AIR LIFTS,
GASOLINE ENGINES
WRITE FOR CIRCULAR
THE AMERICAN WELL WORKS
AURORA, ILL. - CHICAGO - DALLAS, TEX.

THE LARGEST AND BEST LINE OF WELL DRILLING

MACHINERY in America. We have been making it for 20 years. Do not buy until you see our new illustrated Catalogue No. 41. Send for it. It is FREE.

F. O. AUSTIN MFG. CO., CHICAGO

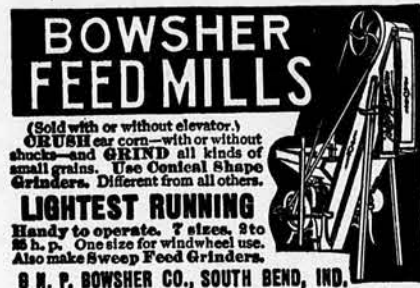
\$10.00 A Sweep Grinder For \$10.00




We manufacture... Wind Mills, Steel Towers, and Feed Grinders. All sizes and styles. Write for catalogue and prices.
CURRIE WINDMILL CO., Topeka, Kansas.



Burr Mills
FOR MEAL AND FEED.
4 to 100 bushels per hour. Complete outfits for corn meal mills, bolters, scales, pulleys, belting and elevators. Send for catalogue.
The J. B. EHRMAN & SONS Manufacturing Co., Enterprise, Kansas.



BOWSHER FEED MILLS
(Sold with or without elevator.) GRINDS ear corn—with or without shocks—and GRINDS all kinds of small grains. The Conical Shape Grinders. Different from all others. **LIGHTEST RUNNING** Handy to operate. 7 sizes. 3 to 25 h. p. One size for windwheel use. Also make Sweep Feed Grinders.
B. N. P. BOWSHER CO., SOUTH BEND, IND.



STICKNEY JUNIOR 3 HP GASOLINE ENGINES
Safe, strong, serviceable, durable, expenseless, cheap in price. A child starts it. Runs itself. Saws, pumps, grinds, separates, runs grind stone, churn, washing and sewing machines. Floor space, 20x40 inches, weight, 1000 lbs. Full three Horse Power. Guaranteed. Let us write you.
CHARLES A. STICKNEY CO., 120 Airfield St., St. Paul, Minn., U.S.A.



CREAM SEPARATOR FREE
This is a genuine offer made to introduce the Peoples Cream Separator in every neighborhood. It is the best and simplest in the world. We ask that you show it to your neighbors who have cows. Send your name and the name of the nearest freight office. Address **PEOPLES SUPPLY CO., DEPT. 187, KANSAS CITY, MO.**

HANDLING CORN FODDER MADE EASY
By the Use of the **Eagle Claw Hand Fodder Fork**
THE only tool invented and manufactured that will handle Corn Fodder successfully. Agents make big money. Write for particulars, and secure the agency. Address **HANDLEMAN & SONS, Des Moines, Ia.**

Farms and Ranches.

We have in central and western Kansas, all kinds of farm and ranch property, large and small, improved and unimproved, for sale. In many cases we can make a desirable exchange. State what you have for sale or what you wish to buy, and we can accommodate almost any kind of a realty deal. Write for our list of bargains. All correspondence will receive our prompt attention. Address **E. C. PREBLE LOAN CO., CUBA, REPUBLIC COUNTY, KANSAS.**

SHIP YOUR FURS
HIDES, PELTS, WOOL, ETC.
To **McMILLAN FUR & WOOL CO.**
MINNEAPOLIS, MINN.
WRITE FOR CIRCULARS.

When writing advertisers, please mention this paper.

ROSS CUTTERS AND SHREDDERS
SAVE FEED, TIME & MONEY
OUR FREE **ROSS** **SHREDDER** **SAVES** **FEED** **TIME** **&** **MONEY**
THE **ROSS** **CO.** **SPRINGFIELD** **OHIO**



There are Some
exclusive good features in Page Fences that have never been imitated, namely, our peculiar wire, and our process of coiling it.
PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.



BUY THE BEST
and you will get the Illinois Wire Co. Stock and Hog Fence every time. As every long wire is made of two wires with our famous right and left twist, it takes up all expansion and contraction without any sagging or breaking. The solid wire stays are only 5 in. apart. Cables 3 & 6 in. apart. Made in heights, 20 to 30 in. high. Standard rolls contain 20 to 30 rods. Write us to-day for illustrated Catalogue, prices, etc. Mailed free.
Illinois Wire Co., Dept. M, Chicago, Ill.



We Sell Advance Fence
Direct to Farmers at Manufacturer's Prices.
This plan not only saves you the middleman's profit, but at the same time gives you the best all round farm fence. Many heights to suit all farm purposes. Entirely interwoven. No loose ends to unravel, ruining fence. Write to-day. Have fence ready when you need it.
ADVANCE FENCE CO., 180 D St., Peoria, Ill.



Perfect Seeding and Fast Sowing
are the two prime essentials in a seeding machine of any kind. They are combined in the highest degree in our seeders. They sow all kinds of grain as well as all grass seeds evenly and perfectly. Our **Stowbridge Broadcast Sowers** are the best and most widely used sowers on the market. Sow from 1/4 bus. up to 3 bus. per acre. Easily and quickly attached to any wagon. Will also distribute Commercial Fertilizers, Plaster, Lime, Salt, Guano, Wood Ashes, etc. Write for free booklet.
Racine Implement Co., Box 21, Racine, Wis.



TWO RACKS OF TEXAS

A NEW FAST TRAIN
Between St. Louis and Kansas City and **OKLAHOMA CITY, WICHITA, DENISON, SHERMAN, DALLAS, FORT WORTH**

And principal points in Texas and the Southwest. This train is new throughout and is made up of the finest equipment, provided with electric lights and all other modern traveling conveniences. It runs via our new completed

Red River Division.
Every appliance known to modern car building and railroading has been employed in the make-up of this service, including

Café Observation Cars,
under the management of Fred. Harvey. Full information as to rates and all details of a trip via this new route will be cheerfully furnished, upon application, by any representative of the



ASTHMA CURED TO STAY CURED
A complete, lasting constitutional cure, not just a "relief." Absolutely different from all sprays, smokes, and so-called "cures." Over 52,000 patients. Attacks never return. Cause eradicated. Health restored. Whole system built up. Book L free. **DR. HAYES, Buffalo, N. Y.**

Ladies Our monthly regulator never fails. Box FREE. **DR. F. M. MAY, Bloomington, Ill.**

BED-WETTING CURED. Sample FREE. **DR. F. M. MAY, Bloomington, Ill.**

Send 22 cts. to the **FARMER'S CALL** QUINCY, ILLS. 20 or more pages weekly. Est. 1880. Complete in all departments, including Women's and Children's. **JOHN M. STAHL, Ed. and Prop.** This offer good for new subscribers only. Stamps taken. Sample copy free.

FREE FACE BLEACH

FOR COMPLEXION
I will send free trial bottle of my **FACE BLEACH** to any lady sending name and address.
Mme. A. RUPPERT, 6-E-14th St., New York City.

The Preston Farming Company.

DANIEL GRISWOLD, PRESIDENT.
WM. TOWNSEND, VICE PRESIDENT.
O. W. PRESTON, SECRETARY.
ROBERT N. MARVIN, TREASURER.

Blanchard, North Dakota, Sept. 27, 1902

Security Stock Food Co.,
Mpls., Minn.

Dear Sirs:—

Your Security Worm Powder for Hogs saved 80 head for me. I had 114 of them when I noticed they were getting off their feed. Then they began to cough and a little later to get weak in hind parts. They got worse all the time and soon began to die. I thought they had cholera but seeing your Worm Powder for Hogs in the store one day I bought some and started giving it at once. Ten of them were so far gone that I couldn't feed them any, but of the rest I only lost six. Three days afterwards the pens were alive with Worms, then I knew it was not cholera, but Worms that killed my Hogs. Hereafter I shall try it with a few Hogs every month to see if they are getting bad again. The cost is nothing compared to the loss of even one animal and is the cheapest kind of insurance.

Yours truly,

THE PRESTON FARMING COMPANY,

Clw Preston Sec

BLACKLEGGOIDS

BEST PREVENTIVE OF BLACKLEG.
Blacklegoids afford the latest and best method of vaccination against blackleg—simplest, safest, surest. They are always ready for use; no filtering, measuring or mixing is necessary. Accuracy of dosage is always assured, because each **Blacklegoid** (or pill) is exactly sufficient for one inoculation. Administration with our **Blacklegoid I** injector is easy. The operation need not consume on 3 minute. **Blacklegoids** are sold by druggists; ask for them. Our newly printed eight-page folder on the "Cause and Nature of Blackleg" is of interest to stockmen. Write for it; it is free.
PARKE, DAVIS & CO. - DETROIT, MICH.
Branches: New York, Kansas City, Baltimore, New Orleans, Chicago, Walkerville, Ont.; Montreal, Que.; London, Eng.

BLACK-LEG-INE

Pasteur Blackleg Vaccine ready for use. **EACH DOSE SEPARATE.**
Single Blacklegine (for common stock): 10 dose box, \$1.50; 20 dose box, \$2.50; 50 dose box, \$6.00. Double Blacklegine (for choice stock) \$2.00 for 10 doses, first lymph and second lymph inclusive. Blacklegine Outfit for applying Blacklegine, 50 cents.

Pasteur Vaccine Co.,
CHICAGO - NEW YORK - FT. WORTH - SAN FRANCISCO.

Union Pacific Railroad

REACH YOUR DESTINATION QUICKLY

Via the Union Pacific to Colorado, Wyoming, Utah, Montana, Washington, Oregon and California. Two fast trains daily from Topeka to the coast and intermediate points. No detours; no change of cars or roads across the Continent.

"The Overland Route" all the Way.
The Fast Trains to Denver are via The Union Pacific.

The average person may not stop to think what the saving of whole days means to the busy, hustling people of America; but it means both time and money, and it is proper to ask who is there who would not do his best to win out on both propositions.

If you will make inquiries regarding above service you will be given prompt and courteous attention. We want every one to know of our splendid service whether they travel or not.

For Tickets, Reservation, and Inquiries, Call on

J. C. FULTON, or **F. A. LEWIS,**
Phone 34 Depot Ticket Agt. 525 Kas. Av. - Phone 53 City Ticket Agt



Union Pacific Railroad

Breeders' Directory

DUROC-JERSEY SWINE.

D. TROTT ABILENE, KAS., famous Duroc-Jerseys, Poland-Chinas. Registered Stock, DUROC-JERSEYS, contains breeders of the leading strains. N. B. SAWYER, CHERRYVALE, KANSAS.

BAILEY BROS. & CO. BEATTIE, KAS. For Sale, Famous Pedigreed Duroc-Jersey Swine. Registered Scotch Terrier dogs. Fine, young stock 6 months old. Nosegay Foxglove at stud. Correspondence solicited.

M. H. ALBERTY, - - Cherokee, Kansas. **DUROC-JERSEYS.** Choice bred gilts and serviceable males.

MAPLE AVENUE HERD **J. U. HOWE,** **DUROC-JERSEYS.** Wichita, Kansas. Farm 2 miles west of city on Maple Ave.

FAIRVIEW HERD DUROC-JERSEYS Watch for our Brood Sow Sale in February. J. B. DAVIS, FAIRVIEW, BROWN CO., KANSAS.

DUROC-JERSEYS. Duroc-Jerseys For Sale—Choice July, Aug., and Sept. pigs for sale, both sexes; also 4 1901 bred sows. Prices reasonable. Newton Bros., Whiting, Kans.

WALNUT HILL HERD **DUROC-JERSEY SWINE.** H. A. J. COPPINS, County Clerk, Eldorado, Kans. Stock of both sexes for sale.

Duroc-Jerseys For Sale 16 choice, vigorous males of spring farrow, and 25 head of extra good gilts, either bred or open; best of breeding. Come and see them, or write your wants. Prices reasonable. J. F. CHANDLER, Frankfort, Kas.

DUROC-JERSEYS. GRADE HEREFORD HEIFERS. I have for sale 50 Duroc gilts either bred or open, a few choice brood sows 2 years old, and some fine young boars old enough for service. One herd boar, also 3 head of choice high-grade Hereford heifers bred to registered Hereford bulls. Write me your wants. T. F. ZIEGLER, LA HARPE, KANSAS.

ROSE HILL HERD OF **DUROC - JERSEY HOGS.**

I have choice gilts bred for early pigs, boars ready for service, and a thrifty lot of fall pigs all from large, prolific sows for sale. Two State Fair prize boars in service. S. Y. THORNTON, Blackwater, Mo.

Standard Herd of Registered **Duroc-Jersey Swine, Red Polled Cattle,** **and Angora Goats.**

Swine herd headed by Big Joe 7363 and Ohio Chief. Cattle herd headed by Kansas 8308. Young stock for sale in season. PETER BLOCHER, Richland, Shawnee Co., Kans.

Golden Rod Herd Prize-winning **Duroc-Jerseys**

Van's Perfection 11571, sweepstakes boar at all State Fairs of 1902, at head. Both fall and spring pigs of both sexes and of his get for sale. GILBERT VAN PATTEN, Sutton, Neb.

POLAND-CHINA SWINE.

Dietrich & Spaulding, Richmond, Kas. FOR SALE—20 boars ready for service. Sows bred or open. 100 spring pigs. Our **POLAND-CHINAS** are at the Top.

Kansas Herd of Poland-Chinas Has some extra fine gilts bred, also some fall boars. Will sell Sen. I know, he by Perfect 1 show. Address—F. P. MAGUIRE, HUTCHINSON, KANS.

SHADY BROOK STOCK FARM **POLAND-CHINAS.**

I keep constantly on hand all sizes and ages of high-class Poland-China pigs. Quality high, prices low. Write for description and price to H. W. CHENEY, North Topeka, Kans.

WAMEGO HERD **...of...** **Poland-Chinas**

With Black Tecumseh 25116 at head, he by Big Tecumseh 24429, a grand individual, and sire of large, strong, growthy fellows, nearly perfect in color, coat, and markings. Large M. B. turkeys and B. P. chickens for sale. Correspond with me at Wamego, Kansas, Pottawatomie County. C. J. HUGGINS.

THOROUGHbred **Poland-China Hogs**

Special price for next 20 days on 10 bred gilts, to farrow in April and May; they weigh from 200 to 275 pounds, and most of them are bred to Black Perfection 27192, the best breeder I ever owned. Also 20 fall pigs, and 4 boars large enough for service. 100 head in a herd. Write for anything you want in Poland-China hogs. JOHN BOLLIN, R. F. D. No. 5, LEAVENWORTH, KANSAS.

POLAND-CHINA SWINE.

FOR SALE Poland-China Hogs, Holstein-Friesian Cattle, either sex. Best strains represented. H. N. HOLD-ERMAN, Rural Route No. 2, Girard, Kansas.

A. B. DILLE & SON, Edgerton, Kans., Have a Fine Lot of Young **..POLAND - CHINAS..** of the best blood, both sows and boars, at reasonable prices. Sows bred if desired.

VERDIGRIS VALLEY HERD OF **POLAND-CHINAS.**

For Sale—Six 8 and 10 months old boars, every one a show boar and as good as I ever bought to use in my herd. Also 150 spring pigs that are immense. E. E. WAIT, Altoona, Kansas.

Shady Lane Stock Farm

HARRY E. LUNT, Proprietor, Burden, Cowley Co., Kans. A few choice bred Poland-China Boars for sale, some choice open gilts and bred sows.

Elmdale Herd of High-Class **POLAND-CHINAS**

Shawnee Chief 25502 at head of herd. If you wish to buy some extra nice bred gilts, meet me at the Improved Stock Breeders' meeting and let me show you some of the right kind.

W. L. REID, Prop., R. R. 1, North Topeka, Kas.

..Oak Grove Herd.. **OF PURE-BRED** **Poland-Chinas**

For Sale—A few choice Boars and 50 Gilts, some bred for early spring farrow. Write, or come and see.... GUS AARON, R. F. D. 5, Leavenworth, Kans.

Providence Farm **Poland-Chinas.**

Correct by Corrector, Perfection Chief 2d by Chief Perfection 2d, Jewell's Silver Chief, and Kron Prinz Wilhelm, herd boars. Up-to-date breeding, feeding qualities, and large, even litters in this herd. Young stock for sale.

J. L. STRATTON, One mile southwest of Ottawa, Kans.

REPUBLIC COUNTY HERD OF **Poland-Chinas**

Tecumseh Wilkes Black U. S., and One Price brood sows, with Old Moonshine 47783 A at head of herd. A splendid yearling boar for sale that will please you. Also other young boars ready for service and some bred gilts. R. S. Comb Brown Leghorns of the finest. O. B. SMITH & SONS, Props., CUBA, REPUBLIC COUNTY, KANSAS.

PEOAN HERD OF **Poland-Chinas.**

Our boars of serviceable age are all sold, but we have a number of good ones of September and October farrow; also a fine lot of bred gilts, sired by Model Tecumseh 64133, J. L.'s Best 70655, and U. S. Wilkes 25521.

J. N. WOODS & SON, R. F. D. No. 3, Ottawa, Kansas

CHOICEST STRAINS

...OF...

POLAND-CHINA HOGS

400 head in herd. Fashionably bred sows and gilts bred to Broad Gauge Chief 25733, first prize winner International Show, 1900, and Simply O. K. 24290, first prize winner Missouri State Fair 1901. 200 winter and spring pigs in special offer. Bargains in registered stallions and Mammoth Jacks. Also SHORTHORN and POLLED DURHAM CATTLE.

SNYDER BROS., WINFIELD, KANS

CHESTER WHITE SWINE.

D. L. Burton, N Topeka, Kas BREEDER OF Improved Chester Whites Stock For Sale. Farm is 2 miles northwest of Reform School.

Maple City Breeding Farm, Breeders of Choice Strains of Registered

O. I. C. Swine, and Galloway Cattle. The prize-winning boar, Eli 4049, at head of herd. The best in Chester Whites for sale in set of young boars and gilts. J. S. GILKEY, MAPLE CITY, COWLEY COUNTY, KANSAS.

The Crescent Herd **O. I. C. WHITE**

The World's Best Swine. Some choice spring boars ready for service, and Gilts bred for sale. This stock is O. I. C. and can not be excelled for the money. Every hog guaranteed. Write for prices and Free Delivery proposition. JOHN W. ROAT & CO., CENTRAL CITY, NEBRASKA.

BERKSHIRE SWINE.

Large English Berkshires

Boars and Gilts for sale at prices to suit. Write quick and get our prices; also a few good yearling boars.

Manwaring Bros., Lawrence, Kans

Knollwood Farm Herd

B LUE BLOODED IG BONED ROAD BACKED BERKSHIRES...

Young stock of all ages and both sexes, and bred sows for sale.

E. W. MELVILLE, EUDORA, KANSAS.

EAST LYNN HERD OF **LARGE ENGLISH BERKSHIRES**

Herd headed by Premier 4th 55577 assisted by Rutger Judge 2d 61106.

ONLY THE BEST.

Imp. Lady Elma 4th 44683, the highest priced Berkshire ever sold in Kansas City, is in our herd and there are others like her. Inspection invited six days in the week. WILL H. RHODES, Tampa, Marion Co., Kans.

Fall Berkshire Boars

FOR SALE, QUICK, AT **A REASONABLE PRICE**

We have for sale a few choice yearlings, sired by Baron Duke 30th 50017, he by Baron Lee 4th 33446, and out of Duchess C 35th 33683. The dams of these boars are of the most desirable strains. Inspection or correspondence desired. Address **ACHENCACH BROS.,** Washington, Kas., Breeders of Berkshire Swine, Double Standard Polled Durham Cattle, and W. P. Rock Chickens.

CATTLE.

ENGLISH RED POLLED CATTLE—Pure-bred Young Stock For Sale. Your orders solicited. Address **L. K. HASELTINE, DORCHESTER, GREEN CO., MO.** Mention this paper when writing.

HEREFORDS FOR SALE.—Having sold the most of my herd, I have left for sale five fine yearling bulls. Write me for particulars. I will sell them cheap. E. S. COWEE, R. R. 2, BURLINGAME, KANSAS.

MEADOW BROOK SHORTHORNS—Ten fine young bulls for sale—all red. Red Laird, by Laird of Linwood, at head of herd. F. C. KINGSLEY, Dover, Shawnee county, Kansas.

COBURN HERD OF RED POLLED CATTLE. Herd now numbers 115 head. Young bulls for sale. Geo. Greenmiller & Son, Centropolis, Franklin Co., Kans.

D. P. NORTON'S SHORTHORNS. DUNLAP, MORRIS CO., KANS.

Breeder of Pure-bred SHORTHORN CATTLE. Herd bull, Imported British Lion 133792. Young stock for sale.

North Elm Creek Herd **Pure-Bred Shorthorns** **and Poland-Chinas**

Scotch-topped Young Mary females with 9th Knight of Elmwood 161507 at head. Call on, or write **W. J. Smith, Oketo, Kas**

Glenwood Herds

SHORTHORNS headed by Victor of Wildwood, by Golden Victor he by Baron Victor. Late herd bull Glaston 137952. Poland-Chinas headed by Glenwood Chief Again. For Sale—Choice young bulls; also females. Prices right. Choice fall boars and gilts cheap. Visitors invited. Correspondence solicited. Address **C. S. NEVIUS, Chiles, Miami County, Kansas.**

40 miles south of K. C., on main line of Mo. Pac. Ry.

Corrector Herefords.

A few choice yearling and 2-year-old heifers bred to one of Corrector's best sons for sale very reasonably; also some 4-year-old cows with calves at foot and rebred, and just four bulls under 1 year out of Lord Wilton and Grove 8d cows. Visitors welcome. Correspondence prompt. **WM. TIBBLES, Haddam, Washington Co., Kans.**

JOHNSON'S **Hereford Ranch.**

Herd headed by Dick Turpin 81521. Choice young breeding animals of both sexes for sale. Parties met at train if notified.

L. F. Johnson & Son, R. R. 4, Geuda Springs, Kas

...Hazford Herefords...

Herd headed by the young show bull, Protocol 2d 91715, assisted by Major Beau Real 71621, a nephew of Wild Tom. Females largely the get of Bernadotte 2d 71634. A few choice young bulls for sale.

Robt. H. Hazlett, Eldorado, Kansas

CATTLE.

POLLED DURHAM CATTLE. 20 head of both sexes. Bulls of serviceable age and young cows bred. Eligible to two records. Correspondence solicited. **A. E. BURLINGAME, KNOX CITY, KNOX COUNTY, MO.**

ABBOTSFORD STOCK FARM OF SHORTHORNS. For Sale—After August 15, the herd bull, Imp. Beauty's Heir 145125; also 30 high-grade cows and heifers, good milkers. **D. Ballantyne & Sons, Herington, Kas.**

ESKDALE HERD OF **Aberdeen - Angus Cattle.**

YOUNG STOCK FOR SALE. **JAMES FRATER, Fredonia, Wilson Co., Kans.**

MAPLE LEAF HERD OF THOROUGHbred **SHORTHORN CATTLE and** **POLAND-CHINA SWINE.**

Farm is 2 miles south of Rock Island depot. **JAMES A. WATKINS, Whiting, Kans.**

Shorthorn Bulls For Sale **From the Valley Grove Herd.**

An extra good lot, reds and roans, sired by Lord Mayor 112727 and Knight's Valentine 157068. **T. P. BABST & SONS, AUBURN, KANS.** (Telegraph Station, Valencia, Kansas.)

MODEL BLUE GRASS FARM **HEREFORDS.**

Stock For Sale. **OVERTON HARRIS, Harris, Mo**

Red Polled Cattle

20 years of line breeding. Blood of (A-4), (A-1), (E 11) represented. High-grade stock, either sex, young or aged, for sale. **A. Z. BROWN, GUILFORD, WILSON CO., KANSAS.**

HEREFORDS and SHORTHORNS **FOR SALE.**

23 registered Hereford bulls, 8 to 10 months; 12 registered Hereford heifers, 8 to 10 months; 9 registered Shorthorn bulls, 14 to 24 months; 50 registered Bates and Cruick-shank Shorthorn cows, 2 to 8 years old, bred to Rosebud's Prince 168748. Prices very low. Call or address **Louis Hothan, Carbondale, Kans**

...Clover Cliff Farm... **REGISTERED GALLOWAY CATTLE**

Also German Coach, Saddle, and trotting-bred horses. World's Fair prize Oldenburg Coach stallion Habbo, and the saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. Visitors always welcome. **BLACKHIRE BROS., ELMDALE, CHASE COUNTY, KANSAS.**

E. H. WHITE, ESTHERVILLE, IOWA

Importer and Breeder of **GALLOWAY CATTLE**

Herd Foundation Stock A Specialty. A Few Choice Females and 14 Bulls For Sale. Inspection or Correspondence Invited.

THE **..N. MANROSE..**

Shorthorns

Rural Route 5, Ottawa, Kans.

Giltspur's Knight 171501, at head of herd. Young bulls ready for service for sale.

"The Wayside" Herd of Registered **HEREFORDS**

"ANXIETY WILTONS," with Printer 66684, March On 14th 106676, and Good Sign 140387, as Service Bulls, will be represented at South Omaha, January 22-23—get a Catalogue and Kums. Some excellent young things among this year's calves for sale—private treaty. Do you want show HERDS that will WIN? Get one by Printer, and one by March On 14th, be on top, and see them take first and second place. **W. W. GRAY, Fayette, Missouri.**

JAMES A. FUNKHOUSER

PLATTSBURG, MO., BREEDER OF

HIGH-CLASS **Herefords**

BULLS IN SERVICE: H'slod 2d 40679, March On 6th 96537, Heslod 85th 116352, Onward 2d 118599.

Sunflower Herd of...

SCOTCH and SCOTCH-TOPPED

Shorthorn **Cattle,** **Poland-China** **Swine.**

Two Scotch bulls in service. Representations stock for sale. Address **Andrew Fringle, Escondido, Wabasha County, Kansas.**

CATTLE.

A. Bumgardner & Son, Holton, Kas., Breeders of
....RED POLLED CATTLE....
 A herd bull and a few young ones for sale.

**ALLENDALE HERD OF
 Aberdeen - Angus Cattle.**

The Oldest and Largest in the United States
 Splendid recently imported bulls at head of herd.
 Registered animals on hand for sale at reasonable
 prices at all times. Inspect herd at Allendale, near
 Iola and La Harpe; address Thos. J. Anderson,
 Manager, Iola, Allen Co., Kans., R. R. 2, or—
 Anderson & Findlay, Proprietors, Lake Forest, Ill.

**Vinewood Herd of Registered
 SHORTHORNS**

Armour Bearer and Lavender King cows with
 American Royal prize-winner Orange Lad 171599 and
 Lavender Gloster 166056 in service. Advance Guard
 and Lavender King yearling bulls for sale.

D. K. KELLERMAN & SON,
 Mound City, Linn County, Kansas.

**Walnut Valley Stock Farm
 Breeders of Scotch and Scotch-topped
 SHORTHORNS**

The prize-winning bull, Scott Junior 124222 at
 head of herd. Choice young bulls
 and heifers for sale.

W. J. SNODGRASS, Gordon, Butler Co., Kans.

**THE SUNFLOWER HERD PURE-BRED
 Angus Cattle.**



Herd headed by FALE LAD
 30645. Herd numbers 250 head,
 the largest herd bred by owner
 in America. Stock for sale.
 Address

PARRISH & MILLER,
 Hudson, Stafford Co., Kans.

**CHAMPION
 GALLOWAYS
 FOR 1902.**

Up-to-date Galloway Cattle, All Ages,
 For Sale.

Personal Inspection or Correspondence solicited by
 C. N. MOODY, Breeder, ATLANTA, MO.

HESIOD HEREFORDS

Highest class females with Hesiod 16th 56466,
 and Copyright 90079 head of herd.

Choice Young Bulls
 Including two show animals for sale
 Wesley Sloan, Wellsville, Kansas.

**..GREENDALE RANCH..
 BREEDERS OF
 ..PRIZE-WINNING..**

**SHORTHORN CATTLE, BERKSHIRE
 SWINE, and SHROPSHIRE SHEEP**

Great constitution and lung capacity gained in
 high altitudes. A few select young swine and sheep
 for sale. ED. GREEN, MORRISON, COLO.

**Elder Lawn Herd
 Shorthorns**

Headed by GALLANT KNIGHT
 and Imp. Tilly Cairn.

Bulls, Cows, and Heifers, for sale at bargain prices.
 Can supply car-load lots if desired.
 Some show yard material.

T. K. TOMSON & SONS, Dover, Shawnee Co., Kans

Bill Brook Breeding Farm.

**SHORTHORN CATTLE and
 ANGORA GOATS.**

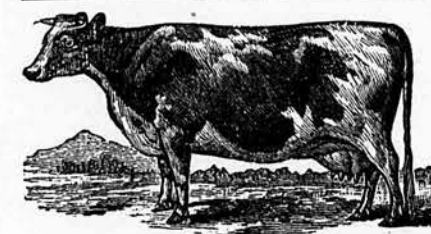
Herd Bull, IOWA SCOTCHMAN 2d 138687.
 Write for what you want. Address

H. O. TUDOR, Holton, Kas

**Rocky Hill Shorthorns
 and Saddle Horses**

Sempstress Valentine 157771 and Mayor
 129229 at head of herd. Larkin's Duluth and
 Kansas King at head of Saddle Horse Herd.

J. F. TRUE & SON, Perry, Kansas.
 Railroad Station, Newman, Kansas.



M. E. MOORE, Cameron, Mo.,
 is offering some fine Pure-bred Holstein-Friesian
 Bulls for sale from official tested dams and
 sires. A few choice females to offer.

HORSES & MULES.

**PERCHERON HORSES, AND
 ABERDEEN-ANGUS CATTLE.**

GARRET HURST, Breeder, ZYBA, SUMNER
 COUNTY, KANSAS. Young stock for sale, of either
 sex. All registered.

Reduction Sale

Any of the following Percheron
 Stallions:

Keota Gordon, weight about 1,600; Black Joe, weight
 in flesh, 1,700; Joker Jr., weight in flesh, 1,700; Har-
 lan, weight about 1,600; Major D, yearling, make
 1,800-pound horse or over; Caplin, 1,100-pound Stand-
 ard-bred trotter. The mature horses will be sold so
 they can pay out this season.

Address H. M. DAVIS, Thayer, Kansas.

**HENRY AVERY & SON,
 BREEDERS OF
 PURE PERCHERONS**

The largest herd of Percheron horses in the West
 and the best bred herd in America. A choice col-
 lection of young stallions and mares always on hand.
 Prices consistent with quality. Address, or come
 and see, at Wakefield, Clay County, Kansas.

Prospect Farm



H. W. McAFEE, Topeka, Kans.

**Breeder of
 CLYDESDALE HORSES,
 SHORTHORN CATTLE**

FOR SALE—25 Clydesdales, including
 three registered stallions of serviceable age,
 and thirteen mares.
 Inspection and correspondence invited.

Cheyenne Valley Stock Farm.



F. H. Schrepel, Ellinwood, Kans.

—Breeder of—

**PERCHERON HORSES, AND
 POLAND-CHINA HOGS**

For Sale—Fifteen young stallions and a few mares.
 Inspection and correspondence invited.

OAKLAWN FARM.

Greatest Importing and Breeding
 Establishment in the World.

Famous Prize-Winning Stud of

**PERCHERONS and
 FRENCH COACHERS.**

On hand upward of
500 HEAD.

Four Large Importations in 1902,
 forming, with our home-breds,

The Choicest Collection Ever Assembled,
 including Four of the Six First-Prize winners
 at the great annual French Show of the Societe
 Hipplique Percheronne in 1902. At the recent

INTERNATIONAL LIVE-STOCK EXPOSITION

at Chicago, the Oaklawn Percherons achieved
 distinguished honors. The Champion Stallion
 and every First-Prize winner (except one)
 in the regular stallion classes were imported by
 Dunham, Fletcher & Coleman.

Notwithstanding the superior quality of
 our horses our prices are lower than can be
 obtained elsewhere in America.

If a Percheron or French Coach Stallion
 is needed in your locality, correspond with
 us, with the view of our sending a salesman
 to place one, with your assistance. Reliable
 men who thus demonstrate ability in this
 line of work have no difficulty in arranging to
 represent us in the selling of stallions.

Catalogue sent on application.

**DUNHAM, FLETCHER & COLEMAN,
 WAYNE, DU PAGE CO., ILLINOIS.**

CATTLE.

**VERMILLION HEREFORD CO.,
 VERMILLION, KANSAS.**

Imported Alberta 2d blood. Boatman 56011 at head
 of herd. A few excellent young bulls for sale.

E. E. WOODMAN, Vermillion, Kans.

**Weston Stamp Herd
 REGISTERED..... HEREFORD CATTLE.**

Anxiety 4th females with Weston Stamp 9th at head
 WM. ACKER, VERMILLION, KANSAS.

**POLLED DURHAM HERD
 FOR SALE.**

Owing to the death of my brother, Mr. R. J. Bur-
 gan, I am now offering to close out the entire herd of
 Double Standard Polled Durhams. Shorthorns, and
 a herd of 100 native cows bred to Double Standard
 bulls. Parties desiring some first class dual purpose
 cattle can now buy to advantage by address-
 ing

NELLIE BURGAN, FORD, KANSAS

CATTLE.

Registered Herefords.

THOS. EVANS, Breeder,
 Hartford, Lyon County, Kansas.

One car load of bulls, 1 and 2 years old; one car
 load of heifers, 1 and 2 years old; a few cows with
 calves by side for sale.

**COPELAND'S
 Shorthorns**

Forty head of Scotch-topped Young Marys, Floras,
 Harriets, Ianthas, and Britanlas. Minister 2d 150171
 at head of herd.

J. M. COPELAND,
 Glasco, Cloud County, Kansas.

When writing advertisers, please men-
 tion this paper.

**SOLDIER CREEK HERDS OF
 HEREFORDS, SHORTHORNS, POLLED SHORTHORNS**

SERVICE BULLS:
 HEREFORDS—Columbus 1791364, Elvina's Archibald 75998, Jack Hayes 2d 119761, Jack Hayes 3d 124109.
 SHORTHORNS—Jubilee Stamp 126017, Orange Dudding 149469. POLLED—Scotch Emperor 133646,
 Ottawa Star 113109. Herds consist of 500 head of the various fashionable families. Can suit any buy-
 er. Visitors welcome except Sundays. Address JOSEPH PELTON, Manager,
 Belvidere, Kiowa County, Kansas.



STEELE BROS., Belvoir, Douglas Co., Kans

Breeders of SELECT

HEREFORD CATTLE

Young Stock for Sale. : Inspection or Correspondence Invited

**Scott & March, Breeders of Pure-bred
 HEREFORDS.**

BELTON, CASS COUNTY, MISSOURI.

BULLS In Service: HESIOD 29th 66304, Imp. RODERICK 80155, MONITOR 58275,
 EXPANSION 93662, FRISCOE 93674, FULTON ALAMO 11th 83731.

25 miles south of Kansas City on Frisco; Ft. Scott & Memphis; and K. C., P. & G. Railroads.

**FOR SALE--Sixty Shorthorn Bulls
 35 Registered, Balance High-grades, and all Red.
 P. S. DUNCAN, : : : Perrin, Clinton County, Missouri!**

GLENDALE SHORTHORNS

Imp. Prince Lovely 155880 and Scotland's Charm 127264 in service. Fifteen young
 serviceable bulls for sale. One extra good young Scotch bull, sired by Imp. Royal
 Favorite 140612, dam Imp. Pavonia. Also 50 heifers and young cows mostly bred,
 some with calves by side. Visitors always welcome. Long distance phone at farm.

C. F. Wolf & Son, Ottawa, Kansas.

SILVER CREEK SHORTHORNS.

The Scotch bull, Gwendoline's Prince 130913, in service. Also the imported
 Scotch Missie bull, Aylesbury Duke. 100 head of the best Scotch, Bates, and
 American families

J. F. Stodder, Burden, Cowley Co., Kas.

Pearl Shorthorn Herd Bull For Sale.

I now offer for sale, my great Cruickshank herd bull, Lafitte
 119915, bred by W. A. Harris, got by Royal Knight 117203,
 out of 16th Linwood Lavender Vol. 38. Address

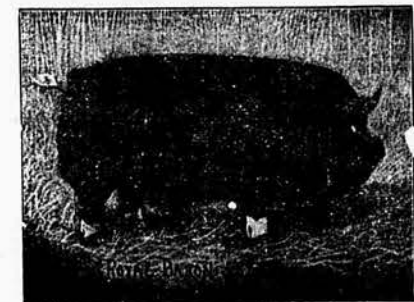
C. W. TAYLOR, PEARL, DICKINSON COUNTY, KANSAS.



Closing Out Roma Park Poland-Chinas and Berkshires

Strictly choice show animals of Glit Edged breeding. Established 20 years.
 For Sale—100 sows and gilts bred and not bred. 20 short yearlings and aged
 boars. Summer and fall pigs of all ages. Reduced prices before sale.

T. A. HUBBARD, ROME, SUMNER COUNTY, KANSAS.



**THE WILLOWDALE
 BERKSHIRES**

ROYAL BARON 58846, the Greatest Show
 Boar in the World, at head of herd. Home of
 the Winners. Young Stock of All Ages For
 Sale.

G. G. Council,
 WILLIAMSVILLE, ILL.

STALLIONS.

IAMS' October, 1902, importation of black Percherons, Belgians, and Coachers was the largest ever made west of the Missouri River. His stallions of big size, quality, finish and extremely low prices are propositions that will make you his buyer. If you can pay cash or give bankable note, you will sure buy stallions of Iams. Only man in the United States that imported only black or bay stallions. He has just imported

63--STALLIONS--63

Shipped to New York by fast boat, then by Fargo Express, special train from New York to St. Paul, Nebraska. Iams' big barns are full of big, black, ton stallions. He is just finishing a new barn 36x100 feet. Iams' horses are the sensation of the town. Visitors throng his barn and say: "Never saw so many big black stallions together." "They are larger, bigger bone, more finish than ever before;" "But Iams is progressive;" "He buys them larger and better each year;" "He makes prices that makes the people buy his horses;" "Iams has a horse show every day, better than State fairs." He has on hand over

100-Black Percherons, Belgians and Coachers-100

2 to 6 years old, weight 1,600 to 2,500 lbs. More black Percherons, ton stallions, largest French horse show winners, more government approved and stamped stallions of any one importer in the West. Iams speaks French and German; needs no interpreter, no buyer, no salesman; no two to ten men as partners to share profits. His buyers get middlemen's profits and salaries. Iams buys direct from breeders. This with his twenty years' experience secures the best. All the above facts save his buyers \$500 to \$1,000 on a first-class stallion and you get a first-class horse, as only second rate stallions are peddled by sleek salesmen to be sold. Good ones sell themselves. It costs \$600 to \$800 to have a salesman form a company and sell a second rate stallion. Form your own companies. Go direct to Iams' barns. He will sell you a better stallion for \$1,000 and \$1,200 than others are selling at \$2,000 and \$4,000. Iams pays horse's freight and his buyer's fare. Good guarantees. Barns in town. Don't be a clam. Write for an eye opener and finest horse catalogue on earth.

FRANK IAMS,

St. Paul, Howard Co., Neb. On U. P. and B. & M. Rys.
References: St. Paul State Bank, First State Bank, Citizens' National Bank.



In order to make room for stallions, will sell 30 mares from 1 to 3 years old, at a bargain. Telephone 292.

Best Terms and Long Time Given Responsible Parties.

Take Washington Park Car to the Farm

WILLEMORE STOCK FARM

IMPORTER AND BREEDER OF

German Hanoverian and Oldenburg Coach Horses

Stallions of all ages for sale.
Both imported and home bred.
Prize-winners both in Europe and America.

Wm. EATON MOORE, Prop., SPRINGFIELD, ILL.



America's Leading Horse Importers

Ours were the Favorite Percherons at the recent International Live Stock Exposition, Chic-go. Five of our importation won First Another one of ours won Championship.

Our French Coach Stallions won Every First prize at the great Chicago Horse Show.

With our Percherons and French Coach Stallions we won Every First at the Iowa State Fair, Kansas State Fair, Kansas City Horse Show, Central South Dakota State Fair, and Ohio State Fair including Grand Sweepstakes all draft breeds competing.

In France our horses were equally successful in the show ring, fifty of them being prize-winners in the two leading shows.

We Import More and Therefore Can Sell Cheaper Than Anybody Else.

McLAUGHLIN BROS., COLUMBUS, OHIO.

Branches: Emmetsburg, Iowa; Kansas City, Mo.



Spot Cash Talks.

Write S. A. SPRIGGS

WESTPHALIA, ANDERSON CO., KANS.

and see what it will do if you want a Registered Percheron or Coach or a big, black, heavy-boned Mammoth Jack or Jennet. All stock guaranteed as represented.

P. S.—A few high-grade Stallions very cheap.



M. L. Ayres' Percherons

My October importation now in my Shenandoah Barns. 100 REGISTERED PERCHERONS on the farm; 75 STALLIONS. Most of them ton horses. Come and see them.

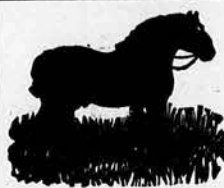
M. L. AYRES, SHENANDOAH, IOWA.

COMBINATION SALE

Percherons, Shorthorns, and Poland-Chinas.

J. W. & J. C. ROBISON, TOWANDA, KANSAS,

Will sell a draft of 50 head from their noted herds. Among the horses they will include most of their 1902 show herd, which won every first prize competed for at Missouri and Kansas State fairs this year. Don't forget the date—February 3, 4, and 5, 1903 at Wichita, Kans. February 3 J. W. & J. C. Robison and Snyder Bros sell 50 Percherons and Shire stallions and mares. February 4, J. W. & J. C. Robison, Snyder Bros., and G. D. Stratton, sell 60 Shorthorns. February 5, Snyder Bros. sell 60 Poland-Chinas.



Draft Stallions.



Percherons Shires, and Belgians.

60 Head to Select From==ALL IMPORTED BY US AND GUARANTEED....

\$1,000 buys a good one from us this fall. It pays you to buy one now as you get him cheaper and keep out competition. Don't pay a big price for a horse, but come and see ours and get a good one for less money than a small importer can possibly sell for. Our stables are across the road east of the Burlington Depot.

WATSON, WOODS BROS. & KELLY, Lincoln, Nebraska.



Lincoln Importing Horse Co.

Percherons, Shires, German Coachers.

Last Importation received Oct. 14, 1902

Write or wire.

A. L. Sullivan, Mgr., Lincoln, Neb.

Anoka Flocks

Cotswolds and Rambouillets. Foundation for flocks a specialty. Correspondence and inspection invited.

HEO. HARDING & SON, WAUKESHA, WIS.

McFADDEN BROS.,

WEST LIBERTY, IOWA,

Breeders of PRIZE-WINNING

Shropshire Sheep

Choice lot of rams and ewes—both Canadian and home bred—for sale. Can supply car lots. Write for our low prices.

George Allen,

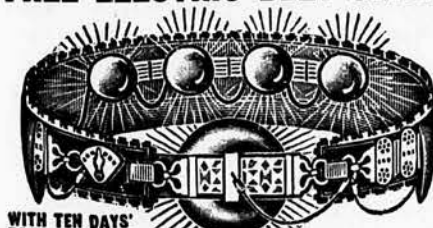
IMPORTER AND BREEDER OF

SHROPSHIRE SHEEP, SHORTHORN CATTLE

For Sale—100 Rams and 100 Ewes. Greatest winner of any Shropshire breeder in America. Address

ALLERTON, VERMILLION CO., ILL.

FREE ELECTRIC BELT OFFER



WITH TEN DAYS' FREE WEARING TRIAL in your own home, we furnish the genuine and only HERRICKBERG ALTERNATING CURRENT ELECTRIC BELTS to any reader of this paper. No money in advance; very low cost; positive guarantee. COSTS ALMOST NOTHING compared with most all other treatments. Cures when all other electric belts, appliances and remedies fail. QUICK CURE for rheumatism, sciatica, ONLY SURE CURE for all nervous diseases, weaknesses and disorders. For complete scale confidential catalogue, cut this ad. out and mail to us.

SEARS, ROEBUCK & CO., CHICAGO.

SECOND ANNUAL GRAND THREE DAYS' COMBINATION SALE

AT RIVERSIDE SALE BARN, WICHITA, KANS., FEB. 3, 4, AND 5, 1903.

Reduced Rates on all Railroads.

FEBRUARY 3.

50 Head Registered Percheron and Shire

Stallions and Mares—Consigned by J. W. & J. C. Robison, Towanda, Kans.; Snyder Bros., Winfield, Kans.; Avery & Son, Wakefield, Kans. Many of the consignment were prize-winners at Missouri and Kansas State Fairs and other leading Western Fairs in 1902.

FEBRUARY 4.

60 Head of Registered Shorthorn Cattle

Consigned by J. W. & J. C. Robison, Towanda, Kans.; Snyder Bros., Winfield, Kans.; G. D. Stratton & Son, Walton, Kans.; Fred Cowley, Columbus, Kans.; Harrington Bros., Clearwater, Kans. All leading families represented.



FEBRUARY 5.

60 Head of Registered Poland-China Hogs

Consigned by Snyder Bros., Winfield, Kans. This draft will be selected from our herd, which now numbers more than 400 head.

AUCTIONEERS

Col. J. W. Sparks, Marshall, Mo.
Col. R. L. Harriman, Bunce, Mo.
Col. L. F. Burger, Wellington, Kans.
Col. J. N. Harshberger, Lawrence, Kans.

For Catalogues of Horse or Cattle Sales, apply to J. C. ROBISON, Towanda, Kans.
For Catalogue of Hog Sale, apply to J. D. SNYDER, Winfield, Kans.

AN IDEAL SALE ...OF... SHORTHORN CATTLE

At Kansas City, February 10 and 11, 1903
At the Kansas City, Mo. Stock Yards Sale Pavilion.

Where Will You Be On Those Dates? Make No Other Dates. If Not, Why Not?
Because!! The "Bone and Sinew" of the Shorthorn Breeding Fraternity Will Be
Present and "Whosoever Will May Come," Because!!! It is An "Even Break"
Offering from Two Champion Shorthorn Herds of America.

On Tuesday, February 10, 1903,

T. J. WORNALL & SON

Will sell 49 Cows and Heifers and 10 Bulls from the Grassland Herd of Shorthorns, comprising 23 Scotch cattle and the balance, Bates and Scotch-topped Bates and American families. It will be the best high-class offering of Grassland Shorthorns ever made. For Catalogue, address

T. J. Wornall & Son, Liberty, Mo.



On Wednesday, Feb'y 11, 1903,

COL. G. M. CASEY

Owner of Tebo Lawn Herd of Shorthorns will make his first public auction from this Celebrated American herd—the Great Champion Shorthorn Herd for 1902. Over 50 ideal Shorthorns will be sold at whatever buyers are pleased to offer. For Catalogue, address

E. B. Mitchell, Mgr. Tebo Lawn Herd,
CLINTON, MISSOURI.

Cols. F. M. Woods, Carey Jones, R. L. Harriman, W. A. White, Auctioneers

...WHAT DID... ANDREW CARNEGIE ...SAY ABOUT... CATTLE RAISING IN NEBRASKA?

"We traverse all day a vast prairie watered by the Platte. Nothing could be finer. Such fields of corn, such herds of cattle grazing at will. Endless herds of cattle untrammelled by fences. No wonder we export beef, for it is fed here for nothing and horses and cattle thrive on the rich grasses as if fed on oats; no flies, no mosquitoes, nothing to disturb or annoy, while the pellucid streams that run through the ranches furnish the best water. Large profits have been made in the trade—the best assurance that it will grow."—Round the World, Oct. 20, 1878.

IN 1884 THE UNION STOCK YARDS WERE LOCATED AT SOUTH OMAHA.

Live stock dealers save money by shipping to their home market. For market letters and full information concerning live stock matters, address....

UNION STOCK YARDS COMPANY
OF OMAHA (LIMITED).

W. A. PAXTON, Pres't. W. J. C. KENYON, Gen'l Mgr.

RECORD OF RECEIPTS:

Years.	Cattle.	Hogs.	Sheep.	Horses and Mules.
1884	88,603	3,686	5,593	489
1885	116,963	152,524	19,484	2,027
1886	148,515	447,019	41,490	2,999
1887	239,377	1,056,524	79,422	3,344
1888	355,923	1,262,647	172,138	5,271
1889	473,094	1,224,691	152,517	7,550
1890	615,337	1,702,723	153,873	5,069
1891	601,002	1,537,387	169,865	8,751
1892	755,059	1,613,384	188,588	14,113
1893	852,456	1,406,451	252,273	12,248
1894	821,512	1,932,677	243,945	8,294
1895	586,103	1,186,726	204,870	7,077
1896	586,578	1,216,370	358,005	9,347
1897	810,949	1,610,981	627,160	6,572
1898	812,244	2,101,387	1,085,136	10,392
1899	837,563	2,216,482	1,086,319	34,255
1900	828,204	2,200,926	1,276,775	59,645
1901	818,003	2,414,052	1,314,841	36,391
1902	1,010,815	2,247,428	1,742,539	42,079
Total	11,358,300	27,534,065	9,174,833	275,913