

Agricultural Matters.

ABOUT FAIRS.

Editor Kansas Farmer:—Some two weeks ago I read an excellent article in a farm journal entitled, "Visit the Fair." The excellence of the advice it contained impressed me so much that I could not wonder why it was not published before the fairs were so nearly over, and though now they are entirely over, especially in our part of the country, I want to ask for space enough to call the attention of our Kansas readers to at least a part of it, as follows:

"Every farmer should at least visit his county fair if it be at all worthy of support, and one of the larger ones as well if he can. With all the criticism that has been bestowed upon fairs—and we have indulged in some of it upon occasion, for their good—there are few of them that are not accomplishing a useful purpose, and when they do not, it is quite as often the fault of the visitor as the show. No one can expect to profit much from a fair, however much he may be amused, if he spends most of his time in the grand stand watching the races, or hunting up the various "attractions" on the ground. If he is going for amusement to the neglect of the weightier matters of the law, he ought not to complain if he does not find the fair instructive. * * * Information of any real value usually has to be worked for. One cannot imbibe it as a sponge takes moisture, merely by being around where it is. A reasonable amount of amusement is all

one might be held, or perhaps may have been, but if so I did not see it. That properly-conducted races are an attractive amusement, no one who goes to fairs can deny. The evidence is patent, for when that time set apart by the management for them arrives the people on the grounds are there in the grand stand, lined along the fences on either side and in front of it. And why not? The morning and part of the afternoon have been spent in visiting the other attractions, seeing the stock exhibits, and the "ribbons tied" in the various classes of the cattle, horse and swine displays.

Fairs are not new, yet they have not become so old that they have lost their usefulness. They are yet beneficial and every county and every State should continue them. They should be made more of a social occasion than they are, where new friends are made and old friends meet and visit, as, together, they "take in" what has been arranged on the grounds both for their instruction and amusement. In Missouri this feature is becoming more prominent each year. The three or four days of the fair are given over to enjoyment and instruction. It is a gala week. Every day is a picnic. Men with their families come from long distances and bring, not baskets, but tubs of the best food ever put on a table. Then when noon arrives they do not seek the shade of an elm with their families alone, but invite enough to "clean the platter," and no stranger, be he owner or common "swipe," is ever allowed to buy a meal. Kansas can well afford to follow the example of Missouri, at least in this particular. Some of our county fairs now do, but it is a custom that

fair. But in most cases, outside of very small meetings, horsemen put up the entire premium and race for it. If exhibitors of stock pursued some such plan as the horsemen do, by each paying a few dollars in each class entered in, associations could easily make premiums larger, for it would not be their money. Let us do all we can to encourage county fairs. Let us by all means have a State fair here in Kansas, the same as other States have. In order to get this State institution, commence at the polls, next November, by seeing that your candidate for the coming Legislature will support a measure looking toward a State fair. He wants your vote. Ask him in return to vote for an institution that will benefit every farmer and stockman in the State. If he won't, he will not make a fit representative to legislate with the one hundred and twenty-five to be elected. O. P. UPDEGRAFF.
Topeka, Kas.

Farmers' Institutes.

PROF. H. M. COTTELL.

The Kansas State Agricultural College, Manhattan, Kas., extends help in conducting farmers' institutes whenever such help is desired, so far as funds permit. Members of the faculty are sent at the expense of the college.

On account of limited funds, we are obliged to arrange for holding the institutes in groups of from three to ten, holding as many institutes as possible with an expense of only one trip for car fare. For this reason it will be impossible for us to attend isolated institutes, and where a number of places near to-



LASOING CATTLE, STOCK YARDS, KANSAS CITY, MO.

From a photographic view taken along the line of the Missouri Pacific Railway.

right, but the man who goes to a fair for amusement alone is pretty certain to come home denouncing it as a failure and declaring that he will never go again.

"A fair is a good place to take the boys on the farm—that is some fairs and some boys. Parents are beginning to be very chary of taking the boys to fairs where most of the inducements consist of striking machines, cane stands, throwing balls at colored men's heads, and worse, and they rather dread fair time, when their boys have a tendency to be a little wild, but if they can teach their sons to regard the fair as the thing it ought to be—a place to see the best that is to be seen in agricultural and live stock lines, and to learn why they are best, with a little amusement thrown in by the way, be it understood—the fair may be made very useful and instructive to the coming generation of farmers. The value of a fair of course depends largely on its management, but it also depends a good deal on the eye with which the visitors look at it."

I believe that although a fair is not intended as a mere amusement, yet that object is a part of a well-conducted one. It is always well to have diversified attractions. That which pleases one may not attract another. I think, with the writer mentioned, that too much time should not be given by visitors to one of the most interesting features of a fair, namely, the racing, nor do I believe there is, as a rule. For the past thirty years I have attended a great many fairs each year, in the capacity of an exhibitor, onlooker or professionally. In that time I think I can most candidly say I have never yet seen a successful fair without horse racing. Not but what

should be more generally practiced.

There are "cranks" in every line of business, and they can be found even among the farmers. I heard one of them say: "Well, I would exhibit some stock at my fair, but the association gives all the money to the horsemen." How often have you heard such language used? Many times, no doubt, and yet you never heard a posted man use such language. It is the ignorant man, the man who does not realize that the advertising he gets at a fair by exhibiting his stock is not only the cheapest means he can use to make his business well known, but is the best. This same man thinks that, when the fair association gives a premium of, say \$200, for a trotting or pacing race, it receives no part of it, whereas, as a rule, it receives it nearly all, in entrance fees and rebates from each of four winners. In most harness races a fee to enter a race of 5 per cent. or 10 per cent. of the purse is charged. In case 10 per cent. is charged, it would require but ten entries to make the association entirely whole. But in most cases the entrance fee is but 5 per cent., with an additional charge of 5 per cent. from each of four money winners, purses usually being divided into four moneys. In this case it would take sixteen entries to make the association whole, or if there were but ten entries on 5 per cent. basis the purse or premium would only cost the association \$60, and not \$200. The best State fair I ever attended made money on every race it gave. I also attended one county fair that was ahead on its racing entries. But usually the cost to county fairs for this part of their program is greater than the cost to the State fairs, in proportion to premiums, because entries are smaller at the county

gather apply for institutes arrangements will be made for holding them on successive dates.

At regular institutes the college usually sends two members of the faculty and recommends that the institutes be of two days' duration. The applications for dairy institutes have been so numerous that but one speaker from the college will be detailed to attend each. This will enable us to help twice the number. We advise creameries who wish us to help them in dairy institutes to arrange for one-day institutes in a place and select places so that from three to six can be visited in a week. In this way the creameries will get the most help from the college and the college people will be able to meet the largest number of people for expenditure of time and money.

PROGRAM.

For one-day institutes we would recommend two sessions—morning and afternoon or afternoon and evening, as will better fit train times. For two-day institutes we would recommend two sessions on one day and three sessions on the other. From two to three papers or addresses are sufficient for each session, each paper to be followed by a discussion, led by persons previously selected, and then thrown open to the audience. Sufficient time should be given to these discussions to bring out the experiences and ideas of all present. The topics selected should be those in which the farmers of the community are most interested. A ladies' session in which all the papers are presented by farmers' wives and daughters and all discussions are opened by them is usually very popular. A question-box, to be opened at the beginning of every session except the first, gives opportunity for discussion of subjects

Was Never Well

But Hood's Sarsaparilla Has Given Her Permanent Health.

"I was a pale, puny, sickly woman, weighing less than 90 pounds. I was never well. I had female troubles and a bad throat trouble. I came across an advertisement of Hood's Sarsaparilla and had faith in the medicine at once. I began taking it and soon felt better. I kept on until I was cured. I now weigh 103 pounds, and never have any sickness Hood's Sarsaparilla will not cure. My blood is pure, complexion good and face free from eruptions." MRS. LUNA FARNUM, Box 116, Hills Grove, Rhode Island.

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Is the best—in fact the One True Blood Purifier.

Hood's Pills are tasteless, mild, effective. All druggists. 25c.

not on the program but of special interest to the audience. Music should be provided for every session by farmers' boys and girls, and it adds to the interest to have both instrumental and vocal. ADVERTISING.

The institute is for the farmer and his family, and no institute is a success unless the families attend as well as the farmers. The college prints programs free of charge. These should be distributed a week before the institute is held, to the scholars of every school within ten miles of the institute, and it is a good thing to adjourn the schools and bring the children to the institute. Programs should be printed in all local papers, and if the institute is held in a town notices should be kept in every store window for the ten days before holding the institute.

BASKET DINNER.

Some of our most successful institutes last year had basket dinners. These furnished a delightful social time for visiting among neighbors. Farmers often remarked that the fun they had at the basket dinner more than paid them for the time spent at the institute and the knowledge gained from the papers was clear profit. If you hold a basket dinner the neighborhood should be thoroughly canvassed, so that every one will come.

SPECIAL FEATURES.

An exhibition of farm products always adds to the interest. Exhibitions of machinery by dealers and street exhibitions of stock are popular in some places.

Last winter at the Peabody institute a business man offered two prizes for the best essays on "How Corn Grows," to be written by scholars in the district schools. A friendly, but strong, rivalry was created between the different schools in regard to winning these prizes, remarkably good work was done by the scholars and the house was packed to overflowing, the audience profiting by the regular papers as well as enjoying this feature of the program.

Leaving the Farm.

Edwin Snyder, Oskaloosa, Kas.

Continuous effort in one direction is wearing on body and mind. Perhaps there is no business or calling that is blessed with so many changes and variations as the farmer's.

As seasons disappear, and changes mark the rolling year, the monotony of his labor is varied by seeding, harvesting and marketing his products, and between these various periods there is opportunity for the thrifty and skillful farmer to find time for short vacation trips and excursions which furnish needed rest for mind and body. For my part I see little need for a farmer to leave the farm, unless wholly incapacitated by the infirmities of age or disease for the work of superintending the same. Certainly a farmer is seldom if ever justified in leaving the farm to engage in other business. Not one in a thousand will succeed. Competition at the present day is very sharp in all lines of business and trade, and only those succeed who are specially adapted to their profession or calling and have served many years of apprenticeship. I have known a number of farmers to trade good farms for stocks of merchandise. I have the first one to see yet who did not meet with speedy and irretrievable disaster. If farmers could but understand that theirs is the safest and the most certain, if intelligently and industriously followed, to lead to a modest competence, of any business or profession, there would be less of feverish discontent and more patience with the slow but certain profits of farming.

I am past fifty years old. I have never for a moment been tempted to abandon the farm for any other calling, and it seems to me now that I shall not so long

as I live. When I get too old to actively engage in the work, I think I can sit around and "boss the job."

I believe none are so unhappy as the habitually idle. I believe the happiest people are the busiest and most useful people.

Far better wear out than rust out. Better overburdened than not burdened at all. I believe that most farmers who leave their farms would enjoy themselves better by staying on the farm and continuing to farm...

Fall Preparation for Alfalfa Seeding.

Alfalfa is necessary to the cheapest production, under Kansas conditions, of beef, milk and pork. For young stock of all kinds it supplies the materials needed to develop bone, muscle and rapid growth.

At least one good crop of alfalfa can be harvested in the dryest year in any part of Kansas, and in most years under favorable conditions from three to five crops are harvested.

Alfalfa collects plant food from the air, storing it up in the soil. Where a Kansas farm has been cultivated until the crop yield is reduced, then alfalfa grown on a part of the farm and fed to stock, together with the grain raised on the remainder of the land, will produce as much or more beef, milk and pork as the grain from the whole farm, and at the same time will increase the fertility of the soil.

Alfalfa is weak when young and on many soils is hard to establish. It grows best on a rich loam with a porous clay subsoil where water is not over twenty feet from the surface, but we have found it growing on high uplands in both the eastern and western parts of the State where water was from 125 to 175 feet from the surface, and it is probable that it can be grown on some spot on almost every section of land in the State.

Alfalfa needs a fine seed-bed in ground free from weeds. Seeding should be done early in April and the ground handled so that at seeding time it will be moist for at least fifteen to twenty inches. This condition can be secured on many soils by fall plowing, pulverizing the soil to a depth of five or six inches with a disk harrow before plowing, making the whole depth plowed mellow.

Alfalfa roots deeply and must have a subsoil which it can penetrate. Where the subsoil is impervious, a subsoiler can be used, or where there is no danger from washing the ground can be thrown up into high, sharp ridges just before freezing.

Each farmer must use his judgment as to the best method to follow, using that method which will put his land in

proper condition at least cost. With few exceptions, every farmer in the State who does not have a field of alfalfa should sow one next spring, and it will pay many farmers to enlarge the area already seeded to this crop.

"Artificial Oats."

The practice, to which the ancient joker used to refer, of putting green spectacles upon the horse before giving it a feed of shavings or the luxury of a mangerful of excelsior, might have advantages for disposing of a comparatively valueless by-product were the animal agreeable to the plan, but it does not appear that he was.

By first pulverizing substances containing hydrated carbonates, such as the leguminous plants, wheat and the by-products of milling, these may be mixed with a forage rich in protein, such as the by-products of the sugar, starch and oil factories, etc. To these may be added other substances designed to tickle the palates of animals, such as, for example, rye flour or bran, oat meal, etc.

Certain by-products, like those of the mill, become most useful, and are most easily sold, when properly prepared and offered in a convenient and solid form. They are first ground as fine as possible in any convenient way, the quantity of each to be used depending upon their nutritive values, their cost and the ease with which they may be obtained.

To give it the desired form, the damp mixture is put into a special machine, which shapes it into the form of grains, which are then dried upon sieves to give each particle a sort of skin or bark. A special machine, patented, is also used for drying the product, and has the further object of increasing its stability by sterilizing the raw materials, as well as preventing the forage, when in the animal's stomach, from massing in indigestible boles.

As this forage is at once sterilized and hygroscopic, it shows no tendency to mold, but may be kept for a long time and sold at a better profit than the natural oats; while a comparison of the chemical composition of the artificial with the natural oats may be seen in the following table as given as the result of a number of analyses:

	Artificial oats.	Natural oats.
Water	10.00	12.40
Protein	18.20	10.40
Fat	7.97	5.20
Coarse fiber	8.09	11.20
Soft fiber	5.92	3.90
Extract substances free from azote	49.82	57.50
	100.00	100.00

TO CURE A COLD IN ONE DAY
Take Laxative Bromo Quinine Tablets. All druggists refund the money if it fails to cure. 25c. The genuine has L. B. Q. on each tablet.

The Best Reason.

A little three-year-old girl went to a children's party. On her return she said to her parents: "At the party a little girl fell off a chair. All the other girls laughed, but I didn't." "Well, why didn't you laugh?" "Cause I was the one that fell off."

The Flight of Fleas.

A common house fly is not very rapid in its flight, but its wings make 800 beats a second, and send it through the air twenty-five feet under ordinary circumstances, in that space of time. When the insect is alarmed it has been found that it increases its rate of speed to over 150 feet per second. If it could continue such rapid flight for a mile in a straight line it would cover that distance in exactly thirty-three seconds.

Fattening Home-Grown and Range Lambs.

This paper contains a summary of the facts obtained from an experiment conducted by the writer in the winter of 1897-8, at the Minnesota Experiment Station. The experiment deals with the fattening of lambs, and one of the points emphasized in it should be of peculiar interest to feeders.

The animals selected consisted of home-grown lambs in the one instance and of Montana range lambs in the other. The former were very ordinary lambs, that is to say, they were the remnant of the lambs grown on the University farm after the choice lambs had either been disposed of early for mutton or had been set aside for breeding.

The two lots were under experiment early in November, 1897, and were disposed of in March. The experiment proper lasted 112 days and both lots were sold by Col. W. M. Liggett, the Director, to P. VanHoven, of Minneapolis. The lambs were valued at \$3.41 per 100 pounds at the beginning of the experiment.

The food consisted of oil cake, bran, barley and oats in the proportions of 1, 2, 3 and 4 parts respectively, clover and timothy hay, clover predominating, and sorghum ensilage. The food was fed in two feeds daily, except the ensilage, which was fed in the evening only.

The food was charged at the ordinary market values of the same in Minnesota. This made the oil cake \$22 per ton, bran \$7.50, hay \$4, ensilage \$1.20, barley 20 cents per bushel, and oats 17 cents. These prices are more in some instances than was actually paid for the food in St. Paul and Minneapolis markets, and in other instances less.

The range lambs consumed per day of grain 1.68 pounds, of hay .68 pound and of ensilage .31 pound, a total of 2.85 pounds. The home-grown lambs consumed per day of grain 1.96 pounds, of hay 1.09 pounds and of ensilage .60 pound, a total of 3.65 pounds.

The cost of feeding each range lamb was \$1.30, against \$1.42 for each home-grown lamb. Of course the greater age of the home-grown lambs would call for a greater consumption of food to make a given gain.

The cost of making 100 pounds of increase in weight by the range lambs was \$3.67, as against \$4.07 per 100 pounds with the home-grown lambs. This feature of feeding is peculiar to the West. Years ago it was a generally accepted fact, that the actual increase in weight obtained from fattening an animal cost more than could be obtained for the same when sold.

profit was \$1.83 on the home-grown lambs, as against \$1.71 on the range lambs. The figures just given are, of course, averages for each lamb.

Since the question of greater profit with the home-grown lambs turned upon their greater weight when the experiment began, it may be asked, Would it not be better to secure animals as heavy as possible for being fattened? No, is the answer that should unhesitatingly be given to this question.

THOS. SHAW.
University of Minnesota.

Answering Prayers.

The story is told that a man in Ripley, O., one morning at family prayers prayed for a good neighbor in great destitution. After the prayer the boy said to him: "Papa, give me your pocketbook and I will go over to Mr. Smith's and answer your prayer myself."

A Preacher Kills a Shark.

While at Newport, Oregon, recently, the Rev. G. W. Grannis distinguished himself by catching a shark measuring about five feet in length. The reverend gentleman was strolling along the beach between that city and Nye creek, accompanied by several of his acquaintances, when he saw some live object struggling in the surf.

A Satisfactory Prescription.

The other day a distracted mother brought her daughter to see a physician. The girl was suffering from "general lowness." The doctor prescribed for her a glass of claret three times a day with her meals.

"I am glad to see that your daughter is so much better," he said. "Yes," exclaimed the grateful mother; "thanks to you, doctor! She has had just what you ordered. She has eaten carrots three times a day since we were here, and sometimes oftener—and once or twice uncooked—and now look at her!"—Argonaut.

A Little Twisted.

An American who years ago served as Minister to Spain, was fond of telling the following joke upon himself: Shortly after he had become settled in his new home he was bidden to a state ceremonial, where he was to be presented to the King. His knowledge of languages was limited to English and French, and being desirous of addressing the sovereign in his own tongue, he took pains to "coach" for the occasion.

"What did you say?" asked an English gentleman. "I spoke in Spanish," was the reply. "I said, 'I cast myself at your feet,' which I am told is the most respectful form to salute." "Ah, no!" corrected a Spaniard, who had been observed to smile at the Ambassador's greeting. "You are mistaken; you transposed your words and quite altered the meaning." "What did I say?" asked the American diplomat. With a twinkle in his eye, the Spaniard made answer. "What you really said was, 'I throw my heels at your head.'" But the King had not betrayed, by so much as the fluttering of an eye-lid, that anything unusual had occurred.—Mexican Herald.

TO BE CONTENT AND HAPPY
Use "Garland" Stoves and Ranges.

The Stock Interest.

THOROUGHbred STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

NOVEMBER 10—J. R. Willson, Marion, Kas., Poland-China swine.
 NOVEMBER 15—Gudgell & Simpson and Jas. A. Funkhouser, Herefords, Kansas City, Mo.
 NOVEMBER 17—W. T. Clay and H. C. Duncan, Short-horns, Kansas City, Mo.
 NOVEMBER 22—George Bothwell, Short-horns, Nettleton, Mo.; sale at Kansas City, Mo.
 NOVEMBER 23—W. F. Harned, Short-horns, Bunce ton, Mo.
 NOVEMBER 30—Scott & March, Belton, Mo., Herefords, Kansas City, Mo.
 DECEMBER 8—Miles Bros., Poland-Chinas, Peabody, Kas.
 DECEMBER 15 AND 16—C. G. Comstock, Albany, Mo., Herefords, Kansas City, Mo.

THE LIVE STOCK SHOW

At the Trans-Mississippi Exposition, at Omaha, Neb.

(Continued from last week.)

RED POLLED CATTLE.

Bulls, aged, first Martin, second McKelvie, third Converse; 2 years, first Martin; bull calf, first and second Martin.

Hy. Stevens & Son, Lacona, N. Y., Holstein. Yearling, first E. M. Barton; second John Hudson, Moweaqua, Ill.; Devon; third J. B. Duke; fourth I. W. Chappell, Lincoln, Neb., Holstein; fifth Hy. Stevens. Bull calf, first J. W. Martin; second Beaman & Bogert; third E. M. Barton; fourth John Hudson; fifth F. A. Squires.
 Cows.—Aged cow, first J. W. Martin; second Beaman & Bogert; third Miller & Sibley, Franklin, Pa., Jersey; fourth E. M. Barton. Two-year-old, first Beaman & Bogert; second J. W. Martin; third F. A. Squires; fourth S. A. Converse, Cresco, Iowa, Red Polled; fifth E. M. Barton. Yearling, first J. W. Martin; second E. M. Barton; third Hy. Stevens & Son; fourth H. C. Young, Lincoln, Neb., Jersey; fifth S. A. Converse.

GRAND SWEEPSTAKES.

Herd, bull 2 years, four females, graded, 3 years to heifer calf.—First Miller & Sibley, Jersey; second J. E. Robbins, Greensburg, Ind., Jersey; third Hy. Stevens, Holstein; fourth I. W. Chappell, Holstein; fifth E. M. Barton, Brown Swiss.

Herd, bull and four heifers under 2 years, heifers bred by exhibitor.—First Miller & Sibley; second J. E. Robbins; third Hy. Stevens; fourth I. W. Chappell; fifth E. M. Barton.

PERCHERON HORSES.

Awards by classes went as follows: Stallions, 4 years and over, first and third R. Burgess & Son, second M. M. Coad, fourth Frank Iams, St. Paul, Neb., fifth McLaughlin Bros., Columbus, O.; 3 years.

Jack 4 years and over, first Comstock, second and third DeClow; jack 3 years, DeClow all premiums; jack 2 years, first Comstock, second and third DeClow; jack 1 year, first McAllister; jennet 4 years and over, first DeClow; sweepstakes, jack any age, first and second Comstock, third and fourth DeClow.

CHESTER WHITE SWINE.

Awards by N. H. Gentry, Sedalia, Mo.
 Boar 2 years or over, first and third Geo. W. Trone, Rushville, Ill.; yearling boar, only one prize given, first to Vanderslice Bros., Cheney, Neb.; boar 6 months and under 1 year was one of the large rings in this class—first J. A. Loughridge, second Wm. M. Gilmore, Fairbury, Neb., third Vanderslice Bros., fourth and fifth John W. Ketcham, Lovelake, Mo.; boar under 6 months, first J. A. Loughridge.
 Sow 2 years or over, first Geo. W. Trone, second Vanderslice Bros., third and fifth John W. Ketcham, fourth J. A. Loughridge; yearling sow, first and second Geo. W. Trone, third Vanderslice Bros., fourth J. A. Loughridge; sow 6 months and under 1 year, first and second J. A. Loughridge, third and fourth Vanderslice Bros.; sow under 6 months, first and second J. A. Loughridge, third and fourth John W. Ketcham, fifth Vanderslice Bros.
 Boar and three sows under 1 year, first Geo. W. Trone, second John W. Ketcham, third Vanderslice Bros.
 Boar and three sows bred by exhibitor, first Geo. W. Trone, second Vanderslice Bros., third J. A. Loughridge.
 Boar and three sows under 1 year, first

Pen ram and three ewes over 2 years, first Allen, second Ballenger.
 Pen two rams and three ewes under 2 years, bred by exhibitor, first Ballenger, second Allen, third Wineland.
 Sweepstakes ram, first, third and fifth Allen, second Ballenger, fourth Wineland; ewe, first and fourth Ballenger, second and third Allen.
 Prof. John A. Craig, of the Iowa Agricultural College, awarded the premiums in this class, as in all the mutton breeds. The same sheep, however, passed through the hands of John R. Thompson, of Indiana, two days later in awarding the Shropshire Breeders' Association special premiums. It is interesting to note that Mr. Thompson's judgment agreed with that of Prof. Craig almost exactly. The exception to be noted is that of the Ballenger yearling ewe, which was given second place.

DELAINE MERINOS.

Rams, aged, first A. T. Gamber; 2 years, first Grau, second Gamber, third King, fourth and fifth Blakely & Co.; yearling, first and second Gamber, third and fourth Blakely & Co.; ram lamb, first and second Gamber, third and fourth Blakely & Co.
 Ewes, aged, first and second Gamber, third and fourth Blakely & Co., fifth E. D. King; 2 years, first and second Gamber, third and fourth Blakely & Co.; ewe lamb, first and second Gamber, third and fifth Grau, fourth Blakely.
 Pen ram and three ewes over 2 years, first Gamber, second and third Blakely & Co.



LONGFELLOW'S BEST 44626, OWNED BY C. A. STANNARD, HOPE, DICKINSON CO., KAS.

We present above an illustration of the yearling Berkshire boar, Longfellow's Best 44626, by Longfellow W., owned by C. A. Stannard, Hope, Dickinson county, Kansas. The sketch was made by our staff artist, Mr. F. D. Tomson. This young boar, in his yearling form, carries the phenomenal weight of 800 pounds and carries it without coarseness. He is remarkably smooth and well finished. His sire, in show condition, weighed nearly 1,200 pounds. Longfellow's Best is maintained as one of the herd boars in the Sunrise Stock farm herd, which numbers about 300 head, all pure-bred. Mr. Stannard enjoys a fine trade, both East and West, and his herd is now one of the largest and best in the West. His advertisement appears regularly in the Farmer, a new change being made in this issue. Mr. Stannard also breeds Hereford cattle, having on hand 300 head, which represent the best of breeding. One of the secrets of the great success achieved by Mr. Stannard is the fact that he retains no animal as a breeder which does not approximate to his ideal of a pure-bred animal, consequently our readers will feel well satisfied with any purchases made from this establishment.

Cows, aged, first and third Martin, second and fourth Converse; 2 years, first and third Converse, second Martin; yearling, first and fourth Martin, second and fifth Converse, third McKelvie; heifer calf, first and third Converse, second and fourth Martin.
 Herd, graded ages, first Martin, second Converse.
 Young herd, all under 2 years, first Martin.
 Herd, four, get of one sire, first and second Martin.
 Two, produce of one cow, first and second Martin.
 Sweepstakes, bull any age, first, third and fourth Martin, second McKelvie.
 Cow, any age, first and fourth Martin, second Converse, third McKelvie.
 POLLED DURHAMS.
 The Beaman & Bogert herd, of Columbus Grove, O., a selection of nine animals from a farm herd of thirty-five head, won ten firsts, four seconds, one third, and two firsts and two seconds in sweepstakes premiums. Mr. Hughes' herd, of Luray, Iowa, took second on aged bull, third on aged cow, third and fourth on heifer calf, and third in both sweepstakes classes.
 SWEEPSTAKES FOR GENERAL PURPOSE CATTLE.
 Bulls.—Aged bull, first Beaman & Bogert, Columbus Grove, O., Polled Durham; second J. W. Martin, Richland City, Wis., Red Polled; third J. B. Duke, Somerville, N. J., Guernsey; fourth E. M. Barton, Hinsdale, Ill., Brown Swiss. Two-year-old, first J. W. Martin; second W. E. Barney, Hampton, Iowa, Holstein; third F. A. Squires, Blue Earth, Minn., Brown Swiss; fourth

first and second Burgess & Son; 2 years, first Burgess & Son, second and fourth McLaughlin Bros., third Iowa Agricultural College; 1 year, first and second Burgess & Son, third Coad.
 Stallion colt, first Burgess & Son, second Coad.
 Stallion and three of his get, first Burgess & Son, second Coad.
 Mare, 4 years or over, first Burgess & Son, second Iams, third and fourth Coad; 3 years, first Coad, second Burgess & Son; 2 years, first Coad; 1 year, first Coad; mare colt, first and second Coad; mare and two foals, first Burgess & Son, second Coad.
 Sweepstakes stallion any age, first, second, third and fourth Burgess & Son, fifth Coad; mare any age, first, second and fourth Burgess & Son, third Iams, fifth Coad.
 Collection, two stallions and three mares, all 5 years or under, first Burgess & Son, second Coad.
 FRENCH DRAFT HORSES.
 Stallions, 4 years and over, first Burgess, second and third Iams; 3 years, first Burgess, second Iams; 2 years, first Burgess, second Iams; 1 year, first Burgess, second Iams.
 Mares, 4 years and over, first Burgess, second Iams; filly, first and second Burgess; mare and two of her colts, first Burgess, second Iams.
 Sweepstakes, stallion any age, first, second and fifth Burgess, third and fourth Iams; mare any age, first Burgess, second Iams.
 JACKS AND JENNETS.
 N. H. Gentry, Sedalia, Mo., judged the jack class. Awards were as follows:

J. A. Loughridge, second Vanderslice Bros.
 Boar and three sows under 1 year bred by exhibitor, first and second J. A. Loughridge, third Vanderslice Bros.
 Four swine get of same boar, bred by exhibitor, first Vanderslice Bros., second Geo. W. Trone, third J. A. Loughridge, fourth John W. Ketcham.
 Four pigs under 6 months, produce of same sow, first and second J. A. Loughridge, third J. W. Ketcham.
 Sweepstakes boar, any age, ten entries, first Geo. W. Trone, second John W. Ketcham, third J. A. Loughridge, fourth Vanderslice Bros.
 Sweepstakes sow, any age, first and second Geo. W. Trone, third J. A. Loughridge, fourth Vanderslice Bros.
 Sweepstakes boar, any age, bred by exhibitor, first prize only, awarded to J. A. Loughridge.
 Sweepstakes sow, any age, bred by exhibitor, first and second Geo. W. Trone, third and fifth J. A. Loughridge, fourth Vanderslice Bros.
 SHROPSHIRE SHEEP.
 Rams, 3 years and over, first Allen, second Wineland, third Ballenger; 2 years, first Ballenger, second Allen; yearlings, first and second Allen, third and fourth Ballenger, fifth and sixth Wineland; ram lamb, first Allen, second Ballenger, third Allen.
 Ewes, 3 years and over, first and fourth Ballenger, second and third Allen; 2 years, first Allen, second and third Ballenger; yearlings, first and fourth Ballenger, second and third Allen, fifth and sixth Wineland; ewe lamb, first Allen, second and third Ballenger.

Pen five ewes bred by exhibitor, first Gamber, second Blakely & Co.
 Pen two rams and three ewes bred by exhibitor, first Gamber, second and third Blakely & Co.
 Sweepstakes, ram any age, first and third Gamber, second Grau; ewe any age, first, second and third Gamber.
 RAMBOUILLET OR FRENCH MERINOS
 Rams, aged, first Dwight Lincoln, second Cook; 2 years, first Bates, second and third Cook; yearling, first and second Bates, third and fourth Lincoln, fifth King; ram lamb, first Lincoln, second and third Bates.
 Ewes, aged, first and second Bates, third Lincoln; 2 years, first and third Lincoln, second and fourth Bates; yearling, first and second Bates, third and fourth Lincoln; ewe lamb, first Lincoln, second and third Bates.
 Pen ram and three ewes, first Lincoln, second Bates.
 Pen five ewes bred by exhibitor, first Bates, second Lincoln.
 Pen two rams and three ewes under 2 years, first and third Bates, second Lincoln.
 Sweepstakes, ram any age, first Bates, second and third Lincoln, fourth Cook; ewe any age, first and third Bates, second and fourth Lincoln.
 OXFORD DOWNS.
 Rams, 3 years or over, first and second McKerron, third Wineland; 2 years, first Stone, second and third McKerron; yearling, first Stone, second McKerron, third Wineland; ram lamb, first and third, Stone, second and fourth McKerron, fifth and sixth Wineland.
 Ewes, 3 years or over, first and second

THE ARMOUR SALE OF HEREFORDS.

The Armour sale, which has been looked forward to with keen interest by breeders of beef cattle generally and the Hereford men in particular, was held, as announced, at Kansas City, October 25 and 26. No effort has been made to conceal the intention of its projectors from its inception until the last animal went under the hammer of making this a boom sale, not for Mr. Armour, but for the white-face breed, and the breeders of Herefords everywhere were appealed to to lend their mite toward advertising the breed. There was a good attendance both days, and the locations to which the purchases go indicate from whence came the buyers. Kansas, Missouri, Nebraska, Illinois, Indiana, South Dakota, Virginia, New Mexico, Texas, Colorado and Nevada each secured a portion of the offering. An average of \$385 for 113 head was made, which should certainly satisfy the promoters of the sale. The figures obtained are less, however, than the average made in the early spring by C. S. Cross, of Emporia, Kas., and others.

Mr. Armour claimed this offering to be an average of his herd, some of the best and some of the poorest, and the bidders appreciated their value. One, True Lass, imported from the Queen's herd, England, sold for \$1,025. Four others sold for \$1,000, and nothing went for less than \$200. Nothing phenomenally high or low, all of which suggests that the business is on a solid basis.

Below we give the detailed list of purchasers:

AMERICAN COWS.

Lady Laurel 51431, Wm. Humphrey, Ash-

Princess 65911, G. W. Shinn, Lathrop, Mo., \$450.
 Daphne 78388, Nelson & Doyle, \$200.
 Starlight 66104 and c. c., J. S. Lancaster & Son, \$470.
 Dottie Dimple 75096, J. A. Funkhouser, \$410.
 Rosabella 2d 37258, Robt. Trumbull, Prairie Centre, Ill., \$310.
 Mystic 3d 33763 and b. c., Mrs. G. W. Hart, \$400.
 Jennie Nodax 74300, Curtis Bros., \$400.
 Miss Beecher 2d 74312, Nelson & Doyle, \$250.
 Britannia K. 74299, J. W. Hanna, \$275.
 Miss Sarah 74313 and b. c., Mrs. G. W. Hart, \$300.
 Miss Wiltona 74315, A. P. Nave, \$385.
 City Bride 70098, W. T. Stovall, Jamison, Mo., \$380.
 Lady Simpson 75108, T. H. Pugh, \$305.
 Madame Sans Gene 75116, C. A. Stannard, Hope, Kas., \$305.
 Merri Osborne 75122, Gudgell & Simpson, \$200.
 Sweet Alice 75139, Gudgell & Simpson, \$240.
 Lady Mystic 70118, Nelson & Doyle, \$300.
 Lady Welcome 75111, C. M. Favorite, \$205.
 Elena 30739, T. F. E. Sotham, Chillicothe, Mo., \$300.

IMPORTED COWS.

True Lass 75149 (from Queen's herd), Scott & Whitman, \$1,025.
 Diamond 75095, Geo. P. Henry, \$400.
 Brenda 13th 75092, F. A. Nave, \$850.
 Lucretia 75114, Nelson & Doyle, \$325.
 Christmas Rose 75152, Geo. P. Henry, \$1,000.
 Empress 3d, lot 54, J. W. Hanna, \$405.
 Cinderella, lot 51, W. S. Ikard, \$310.
 Venus 75150, J. W. Hanna, \$430.

Kansas Lad Jr. 75104, Geo. P. Henry, \$1,000.
 Night Lad 75122, Murray Boocock, \$375.
 Helmet 70112, Curtis Bros., \$440.
 Tempter 75142, Stewart & Hutcheon, \$450.
 Meadow Beau 75120, Curtis Bros., \$300.
 Ransom 75128, Texas Land and Cattle Co., \$255.
 Overland 75124, E. M. Shields, Garnett, Kas., \$300.
 Sabine 75130, Mrs. G. W. Hart, \$400.
 The Judge 75145, Albert Krug, Cambria, Kas., \$330.
 Circus Rider 75093, A. Palmer, Kansas City, \$230.
 Armour Hesiod 75082, G. W. Shinn, \$560.
 Prince Horace, Mrs. G. W. Hart, \$400.
 The Deacon 75143, T. C. Thornton, Colorado Springs, Col., \$250.
 Buckeye, lot 110, W. H. Meyers, Henrietta, Texas, \$340.
 Red Seal, lot 111, T. C. Thornton, \$400.
 Duncan, lot 112, E. E. Poupirt, Denver, Col., \$210.
 Tramp, lot 113, A. M. Young, Higgins, Texas, \$350.
 Warrior, lot 114, W. S. Ikard, \$600.
 Ben Bolt 75088, W. J. Cox, Maple Hill, Kas., \$325.

IMPORTED BULLS.

War Eagle, lot 103, Richard Walsh, Paloduro, Texas, \$450.
 Roderick, lot 104, Scott & March, \$325.
 Magician, lot 105, Richard Walsh, \$375.
 Admiral, lot 106, Wm. Humphrey, \$485.
 Buckton Explorer, lot 107, Geo. B. Mathewson, Pierre, S. D., \$350.
 Buckton Reliance, lot 108, Nelson & Doyle, \$240.
 Albert, lot 109, D. B. Baker, Maryville, Mo., \$305.
 Seven imported bulls sold for \$2,530; average \$361.42.

Short-horn sale catalogues of the few years past will reveal the esteem in which the Thistletop stock has been held by their owners. May 68th, a fine, smooth-finished cow, and Roxanna 8th also appear in the group. Mr. Channon has a splendid trade in both cattle and Poland-China hogs, of the latter of which he keeps about 300, carrying the leading blood lines of the breed.

Mr. Channon's herd is one of the largest in the State, and every visitor is astonished to find such a grand and uniform lot of youngsters. But it is easily explained by the present herd sire and the good type of females, mainly of the Rose of Sharon, Young Mary, Princess, Pearl, White Rose, Adelaide and similar families, which have been handled and culled for twenty years, until the present excellence of the herd has been achieved. Note his regular advertisement in the Farmer.

Polled Kansas Cattle.

In this issue we present an illustration of the fifth generation of a family of Polled Kansas cattle developed by Hon. W. W. Guthrie, of Atchison, Kas., and which were brought to public notice first in a special exhibit made at the Trans-Mississippi Exposition, at Omaha, as an all-purpose breed of cattle. They attracted much attention.

In an interview with the writer, after the Exposition, Mr. Guthrie said:

"I would very much have preferred to have had the Omaha Exposition occur two years later, for I had not reached a stage of my experiment where I was desirous of making a public show of it. But, as during the past year the matter had gotten very considerably into the newspapers, from



REPRESENTATIVES OF THE SHORT-HORNS BRED BY GEORGE CHANNON, HOPE, DICKINSON CO., KAS.

land, Neb., \$1,000.
 Kanmaida 50100, Scott & Whitman, Leavenworth, Kas., \$200.
 Armour Maid 17th 55107, Wm. Atkinson, Roswell, N. M., \$255.
 Armour Maid 25th 60043, T. H. Pugh, Maple Grove, Mo., \$300.
 Armour Maid 1st 60044, Wm. Humphrey, \$675.
 Armour Maid 9th 60052, Wm. Atkinson, \$280.
 Armour Maid 12th 70088, J. M. Jones, Kansas City, Mo., \$410.
 Lady Starmaid 70122, J. M. Jones, \$300.
 Lady Verna 70123, Jas. Funkhouser, Plattsburg, Mo., \$405.
 Lady Passion 75107, F. A. Nave, Attica, Ind., \$280.
 Lady Starlight 70121 and bull calf, J. W. Hanna, Odessa, Mo., \$355.
 Lady May 70127, C. M. Favorite, Chicago, Ill., \$280.
 Lady Alma 70114, Geo. P. Henry, Chicago, \$260.
 Lady Nubia 70119, Scott & Whitman, \$250.
 Armour Maid 4th 55104, A. P. Nave, Attica, Ind., \$425.
 Armour Maid 8th 55108, Nelson & Doyle, Kansas City, Mo., \$325.
 Armour Maid 10th and c. c., Mrs. G. W. Hart, Partridge, Kas., \$400.
 City Kate, 70101, F. A. Nave, \$210.
 City Belle 70096, Mrs. G. W. Hart, \$280.
 City Beauty 70095, F. A. Nave, \$440.
 Mohammed Maid 3d 60057, Murray Boocock, Keswick, Va., \$310.
 Fashion 70106, Nelson & Doyle, \$200.
 Soubrette 70125, J. A. Lancaster & Son, Chandler, Mo., \$250.
 Folly 70107, Geo. P. Henry, \$300.
 Sweetheart 70132, Gudgell & Simpson, Independence, Mo., \$230.
 Lady Slipper 75109, W. S. Ikard, Henrietta, Texas, \$380.
 Rosa Lina 66690, J. A. Funkhouser, \$325.
 Donna 6th 66692, W. S. Ikard, \$425.

Lalla Rookh, lot 53, F. A. Nave, \$1,000.
 Adeline, lot 55, W. M. Atkinson, \$315.
 Lena, lot 56, Jno. Sparks, Reno, Nevada, \$370.
 Deborah 2d, lot 57, Geo. Leigh, Aurora, Ill., \$270.
 Cherub, lot 59, W. M. Humphrey, \$300.
 Coquette, lot 62, Nelson & Doyle, \$310.
 Arethusa, lot 63, C. S. Cross, Emporia, Kas., \$400.
 Wild Rose, lot 64, Nelson & Doyle, \$300.
 Friozlina, lot 65, Jno. Sparks, \$280.
 May Queen and b. c., lot 66, W. H. Prentiss, Hamilton, Ill., \$600.
 Douonton Symmetry and b. c., lot 67, W. H. Prentiss, \$600.
 Coquette, lot 68, G. R. Reynolds, Higbee, Mo., \$350.
 Blush, lot 90, Geo. P. Henry, \$360.
 Widow, lot 71, G. W. Shinn, \$380.
 Purity 2d, lot 72, Nelson & Doyle, \$280.
 Primrose, lot 73, Geo. P. Henry, \$350.
 Bonny, lot 75, Wm. Nethery, Sartoria, Neb., \$300.
 Laurentia, lot 76, C. S. Cross, \$350.
 Tullip, lot 77, Nelson & Doyle, \$325.
 Gem, lot 78, J. M. Jones, \$330.
 Rosa 76058, Jno. Sparks, \$500.

AMERICAN BULLS.

Drusus 70105, Newton Long & Sons, Lyndon, Mo., \$310.
 St. Bellboy 70129, Curtis Bros., Memphis, Texas, \$500.
 Gazette 75100, Murray Boocock, \$300.
 Jno. Sparks 75103, Curtis Bros., \$275.
 Steve Jerome 75138, Texas Land and Cattle Co., \$240.
 Billy Cummings 75090, Egger Hereford Cattle Co., Appleton City, Mo., \$225.
 St. Paul 75132, J. T. Spreck, Nortonville, Kas., \$255.
 Searchlight 75134, Henry Traff, Higbee, Texas, \$245.
 Shore Acres 75135, Murdi McKenzie, Trinidad, Col., \$1,000.

Twenty-eight American bulls sold for \$10,915; average \$389.80.
 Forty-nine American cows sold for \$17,110; average \$349.55.
 Twenty-nine imported cows sold for \$12,965; average \$447.06.
 One hundred and thirteen head sold for an average of \$385.

A Notable Herd of Short-horns.

Mr. Geo. Channon, of Hope, Dickinson county, Kansas, who breeds Short-horn cattle and Poland-China swine, while casting about for a herd bull, some time ago, found out in the "short grass country" the Cruickshank bull, Glendower 103387, bred by W. A. Harris, at Linwood. He is sired by the late Imp. Thistletop 83876, dam Golden Rod by Imp. Baron Victor 2d, dam Imp. Golden Thistle by Roan Gauntlet. It would be difficult to find a pedigree more to the liking of the Short-horn critic than that of Glendower, whose likeness appears in the group illustration which we publish in this issue. The value of this pedigree is demonstrated by the uniformity and individuality of his get. It matters little whether his calves are all from one type of females or from many, he stamps his get with his own general character and conformation. In this ability he is like his worthy sire, Imp. Thistletop, who perhaps had no superior as a sire of uniform, growthy, beefy calves, thrifty and useful wherever found. Thistlewood, one of his get, limped into the show ring at the World's Fair on three legs, and, in spite of his infirmity, carried away fourth honors in the face of such competition as Young Abbottsburn, Gay Monarch and all the leading bulls of the Short-horn realm. Golden Thistle, another by Imp. Thistletop, was accounted the very best calf of his year and was illustrated in the Breeder's Gazette in 1896. A review of the various

New York to San Francisco, and I had a good many inquiries, I felt that the most certain way to respond would be by exhibiting the cattle to the public, and the Omaha Exposition seemed to be the fitting occasion. When I issued my circular, in April, 1898, with a cut of 'A Family of Polled Kansas Cattle,' it contained the family as then existing, but on August 14 there was added the third calf, a male, and so the family, as exhibited at Omaha, consisted of the bull, cow and three calves, the youngest 2 months old October 14, and the cow 3 1/2 years old October 21. There was also a second cow, a month older, with her third calf, dropped August 2, and a yearling heifer. I think that I need not say that they attracted at least as much attention as any cattle on the ground; and while not eligible to a cash premium, by reason of not having reached the standard development of at least seven generations, they were awarded a 'gold medal and certificate as a new breed of cattle entitled to the highest consideration.' Mr. Beardshire, President of the State Agricultural College of Iowa; Prof. Craig, of the animal industry department of that college; Prof. Plumb, of the Purdue University of Indiana; ex-Governor Furnas, of Nebraska; Prof. Bruner, of North Carolina, and Prof. Hyde, of the Department of Agriculture at Washington, all cattle scientists, examined the cattle together, and all expressed themselves in the warmest terms as fully satisfied that I had succeeded in the establishment of a breed of cattle which was not excelled for general purposes; and one of the leading Polled Durham men admitted that I was farther along in my five generations than they had been in the fifteenth. The fact that my cattle indicated both good beef and good milking qualities was accepted as very desirable, as well that the large cattlemen could depend upon their calves being well raised, as by the

smaller farmers who could depend upon a milk supply while raising cattle for fattening purposes. The Polled Durham and mine are the only new breeds of cattle, so far as advised, developed in the United States, and the people of Kansas ought to appreciate the credit of having the cattle named for their State."

Gossip About Stock.

We are pleased to direct the attention of our readers to the breeder's card of Duroc-Jersey swine, by James U. Howe, Wichita, Kas., who is making a success of breeding this class of stock, the foundation of which came from the well-known herds of Bell & Reid, of Ohio, and Roberts & Son, and F. F. Fallor, of Iowa.

Mr. C. F. Hutchinson, Bellaire, Smith county, Kansas, made an exhibit, at the Omaha Exposition, of well-bred Poland-China swine, also a splendid exhibit of cheese from his factory, both of which did credit to Kansas. He booked a large number of orders for pigs to be shipped from home on his return.

One of the Poland-China breeders who has the reputation of having one of the leading herds of the State, and who also has been active in promoting, by organization and otherwise, the improved stock breeders' interest of the State, is to be found in the person of J. R. Killough, Ottawa, Kas., who informs us that he has the best lot of boars ever raised by him, which includes some line-bred Tecumseh's that are veritable cracker-jacks; also some Klever Model pigs that will surely please, because prices are right.

Among the recent sales made by Wm. B. Sutton & Son, of Russell, Kas., and deserving of special note, is that of their well-known herd boar, Imp. Lord Comely 34744. To this boar, more than any other, credit is due for the unusual finish and quality

Sotham, of Chillicothe, Mo. Fully 300 buyers and spectators were in attendance. The offerings were in good condition and sold briskly at satisfactory prices. The 400 head brought a total of \$14,852, or a general average of a trifle over \$37 per head. Curtis Bros., of Memphis, Texas, got 80 head; J. are generally to be found together at any one place. They are all ready for immediate sale. C. Small, Aurora, Ind., 100 head; B. Lantry & Sons, Strong City, Kas., 50 head; C. G. Gillett, Woodbine, Kas., 50; Glazebrook Bros., San Antonio, Texas, 20; T. J. Crippen, Council Grove, Kas., 40; Shirkey Bros., Rockingham, Mo., 20; and 10 each went to H. H. Drake, Beattie, Kas.; O. B. Dorsey, Kinney's Grove, Mo.; T. F. B. Sotham, Chillicothe, Mo., and W. H. Wade, Kenton, Tenn.

Messrs. M. M. Lambing & Son, of West Liberty, Iowa, owners of Old Black U. S. 13471 at the time of his death, have kept intact until recently the last litter of pigs the old king ever sired. But one of the three boar pigs of the litter, which they had reserved for their own use and had refused to price, until Mr. Andrew Pringle, of Harveyville, Kas., persuaded them to let him have him, making such an offer that could not be refused, has gone to enrich the Kansas herd. Mr. Lambing informs the Farmer that this stylish youngster could not have been purchased except for the fact that he has a two-year-old full brother to Black U. S. 2d that is still serviceable, although he supposed he had ceased to be. Mr. Lambing thinks that Mr. Pringle has secured, in point of breeding, a boar that has no superior in Kansas.

Mr. C. G. Comstock, of Albany, Mo., will hold a public sale of Herefords, at Kansas City, Mo., on December 15 and 16, 1898. He will offer 105 head from his well-known Grandview herd, located at Albany, Mo.—seventy bulls and thirty-five cows and heifers. The catalogue may be had by writing Mr. Comstock. He is offering a larger

North Oaks 11th's calves which have been dropped this fall, and expect as many more before January 1, which will be about the last of his get which we will have. But they are calves which will make that sire pass down into history as one of the bulls of his day, or any other day. We are also getting a few calves from our Waterloo Duke of Atchison 127452, the two-year-old got by Winsome Duke 11th 121622 out of Water Baby 13th by Waterloo Duke 8th 89878. They are remarkably fine calves and we are considering whether or not to withdraw him from sale. He is, we believe, destined to be a second Winsome Duke 11th. Our Siddington-Kirklevington herd bull, Kirklevington Duke of Hazelhurst 11th, which we purchased last spring, has gained greatly in flesh and is handsomer than ever, if such were possible, and we expect great results from him in the spring when his calves begin to arrive."

The attention of beef cattle breeders, especially those interested in the best of registered Short-horn cattle, is called to the double announcement of Mr. George Bothwell, of Nettleton, Caldwell county, Missouri, and W. P. Harned, of Bunceton, Cooper county, Missouri, who will offer 135 head of serviceable bulls, cows and heifers at public sale, at Kansas City, November 22. Mr. Bothwell founded his herd, known as the Clover Blossom herd, in 1885, and has annually recruited it until at this time there are about 125 head of Cruickshank, Scotch and Scotch-topped cattle, whose breeding and individuality have no superior three to seven herds, and the Clover Blossom exhibit practically licked the platter clean in every contest. At Ottawa, Kas., seven herds were out, and among them the best west of the river, yet the Missouri herd gracefully carried away the blues and sweepstakes off to "old Missouri." As per announcement elsewhere in this issue, the offering will consist of thirty-eight bulls and nineteen cows and heifers, strongly

B. & B.

Ladies' Flannel Shirt Waists,
\$1.00 Each.

Navy Blue, Garnet and Black. Two styles, plain, or with three clusters of bias rows of braid on front, both styles with self-detachable collar, self cuffs. This store has always aimed to have a special flannel waist to sell for a dollar, but this one so far surpasses in making, material and style, any we've ever known of for the money, as is a remarkable offering. When ordering please send bust measure—if to be sent by mail, enclose 10 cents additional for postage on each waist.

42-inch 50-cent all wool American Dress Goods Fancies, 25c yard—so wide and good as you'll be pleased with soon as you see samples.

Make use of our sampling system. It will save you money in your Silk and Dress Goods buying, such extensive lines as includes every preference.

See what fine, nobby plaids, 50 cents a yard, other plaids 10 cents to \$2.00.

Send for the new 250 page picture book about the store.

BOGGS & BUHL,

Department G. G. Allegheny, Pa.

A Warm Country.

"Was it hot out there?" asked the old resident of the man who had just returned from Arizona.

"Hot? I raised watermelons out there, and do you know what happened when it began to warm up?"

"Did you have to sit in the middle of the patch with a shotgun and have a bulldog patrolling the fence line?"

"Naw. Guess again."

"Did the vines grow so fast that they dragged the melons, and did you have to smooth the ground so that the rind wouldn't be worn off and the fruit destroyed?"

"Oh, somebody has been telling you one of those big Western fairy yarns. You ought to have sense enough to know that the melons can't be dragged by the vines. But I did have to bore a hole in every watermelon I wanted to save."

"No? What was that for?"

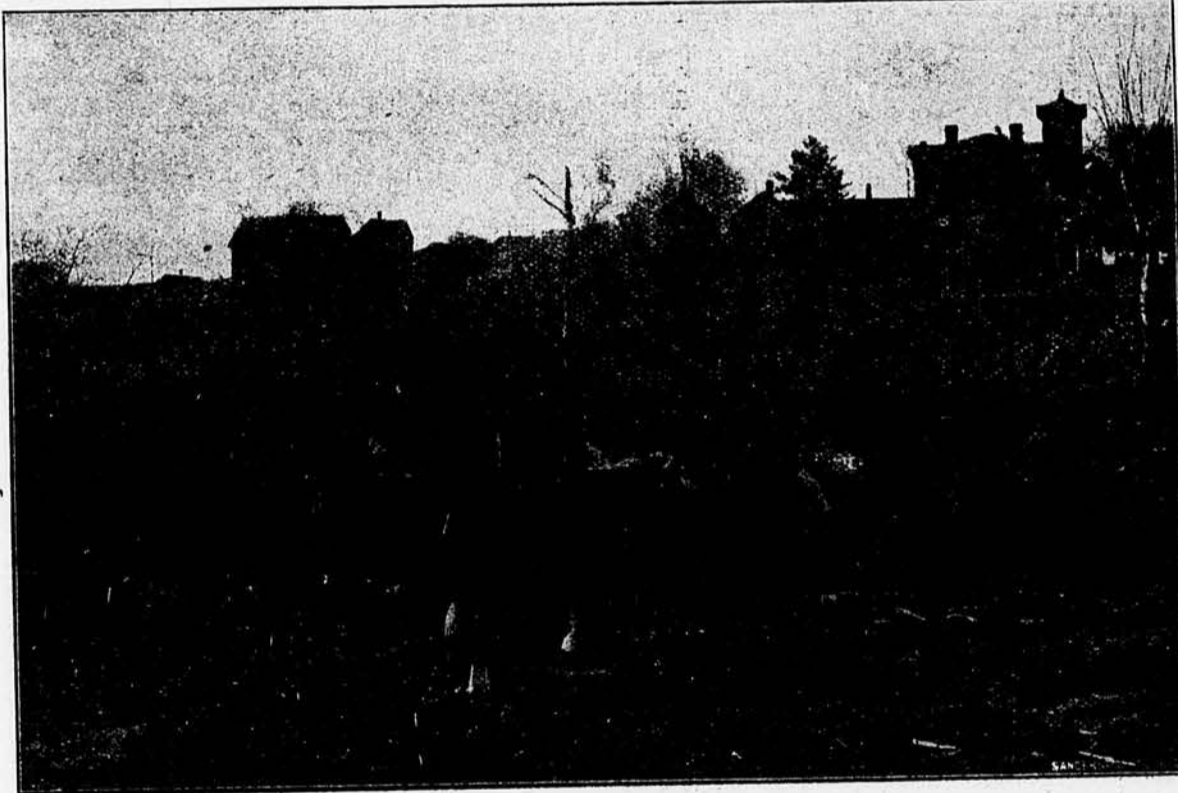
"Because the heat was so awful it generated steam in the melons and we had to give it vent or they'd explode. And when the holes were bored the durned things blew off just like steam whistles. When dozens of them of all sizes got to going at once it sounded about like all the boats on the river tooting when the boys come back from the war. I have ears like an artilleryman now and have to listen mighty careful to hear it thunder."—Detroit Free Press.

Sleep and the Brains.

When the brain is at work marshalling ideas, producing mental pictures, and calling into action stored-up memories and impressions, the cells of its mysterious potent "gray matter" undergo a change of form. Cavities are formed in them, which, as the brain becomes wearied by long-continued action, fill with a watery fluid. Part of the substance of the cells appears to have been consumed in the process of thinking, but in the hours of sleep the exhausted cells regain their original form, the supply of recuperative material coming from the blood, and on awakening, the mind finds its instrument restored and prepared again for action.

Spooks Break Up a School.

Spooks have broken up a public school, the house standing empty and deserted, it being the Walnut Grove district, twenty miles west of Kokomo, Ind. Walnut Grove is where Amer Green was lynched years ago for the murder of Luella Mabbitt, Green being hanged on a Walnut tree near the schoolhouse where he and the Mabbitt girl were last seen together. During the last two or three years the children have been "seeing things," and declare that the ghosts of Green and Miss Mabbitt are still stalking abroad in the neighborhood, and particularly active in the locality of the schoolhouse. As a result the school has dwindled down to nothing. By request fifty pupils have been assigned to adjoining districts, leaving but five for the Walnut Grove school. The teacher refused to open school this week for the year, and the house stands empty.



POLLED KANSAN CATTLE.

The fifth generation of a family of Polled Kansan Cattle, developed by Hon. W. W. Guthrie, Atchison, Kansas, and exhibited at the Trans-Mississippi Exposition, Omaha.

found in the Messrs. Sutton's female herd. The fortunate purchaser is Dr. A. B. Jones, of WaKeeney, Kas., who secured him for his small but select herd, at \$100. A choice lot of Lord Comely boars and sows are still to be had at reasonable prices by addressing Wm. B. Sutton & Son.

H. G. Sims, Smith Center, Kas., who made a creditable exhibit of Poland-Chinas at the Omaha Exposition, reported the following sales: To N. J. Swallow, Booneville, Iowa, the first-prize boar pig, for \$50; also boars to the Standard Cattle Co., Ames Neb.; John Negley, Bancroft, Neb.; L. A. Gatzmeyer, Bancroft, Neb.; F. A. Miller, Shelby, Iowa; H. G. Lubor, Estelle, Neb., and to J. Mandelbaum, Blue Hill, Neb., a sow pig by Black Model.

The attention of all our readers interested in fashionably-bred registered Hereford cattle is called to the public sale announcement, elsewhere in this issue, wherein one finds that Messrs. Scott & March, Belton, Cass county, Missouri, who founded their herd eighteen years ago with the best English importations and since recruited annually with the best obtainable, will hold their third public sale at Kansas City, Mo. The seventy-five head that have been catalogued are, the prospective buyer will find, if he looks through their sale catalogue, that the herd, now over 450 head, is bred on the strongest of American lines known to the white-face fraternity in this country. The herd is handled so as to practically insure future usefulness. The Hereford breeding public may rest assured that, notwithstanding this herd has not yet attained the notoriety that some others have, it nevertheless possesses individuality and breeding worthy all progressive Hereford breeders.

The public sale of 400 high-grade Hereford heifer calves, held last Thursday, at Kansas City, was a decided success and confirmed the fact that even grade white-faces are a very desirable kind of cattle. The sale was held under the supervision of the general manager of the Adair herd, Richard Walsh, assisted by T. F. B.

number of bulls of serviceable age than date service, and more than three-fourths of them will be over 17 months old at time of sale. Mr. Comstock held over his entire crop of 1897 spring calves and has now made selections from them with the view of offering a lot representative of his herd. He is thus enabled to make a showing of animals of individual excellence, of desirable breeding and of strong ages that will do credit to his herd as well as to the breed. Too much emphasis cannot be put upon the ages and qualities of these bulls. The cows and heifers are all old enough to breed, and most of them will have been bred at time of sale. We feel sure they will maintain the reputation of the Grandview herd. Breeders who are partial to any especial family of Herefords will find in this sale ample opportunity for selecting their favorites, the list including Lord Wiltons, The Grove 3ds, Anxieties, Garfields, Beau Reals and Ancient Britons. Parties desiring first-class Herefords are very cordially invited to inspect the sale offerings, and the better to understand the merits of their breeding to write for a free copy of the sale catalogue.

G. W. Glick & Son, Atchison, Kas., write: "In accordance with our time-honored custom of adding to the already present excellence of our Bates Short-horns whenever the opportunity offers, we have finally secured the 53d Duke of Airdrie 107211, an individual of almost unequalled merit, which we will mate with such females as our Duchesses, Waterloos, Wild Eyes, Siddingtons, Kirklevingtons, etc., which have been crossed with bulls of merit, as to breeding and individuality, since passing into our hands. We hope to accomplish with the 53d Duke of Airdrie what we were unable to do with Grand Duke of North Oaks 11th 115735, owing to his death at just the prime of his life and when we were beginning to see what a grand breeder he was and what a valuable herd bull we had. We have about fifteen of Grand Duke of the State of Missouri. His show herd, bred mainly on the farm, was out this fall and showed at seven fairs, meeting from

Cruickshank breeding and of the deep-fleshed, beefy type. Mr. W. P. Harned, the well-known breeder of Bunceton, Cooper county, Missouri, will hold his third annual sale in the city of Bunceton, on Wednesday, November 23, 1898, the day following that of Mr. Bothwell. The Harned offering will consist of seventy-five head—fifty bulls and twenty-five females, mostly yearling heifers. A major portion of the bulls are by the Imp. Chief Steward 96703 and Scotch Minister 117294. The latter bull was by the Imp. Barbarossa 68197. Chief Steward was bred by Amos Cruickshank, Sytton, Scotland. The Harned cattle are therefore pure Cruickshank and Scotch-topped. His show herd has a long list of showing victories to its credit. This year he showed four head at Omaha, where the best in America were marshaled for showing honors, and won third, fifth and sixth in a ring of youngsters. More than two-thirds of the fifty bulls are strong yearlings and grown out on the grass, thereby insuring the greatest degree of sure usefulness. Parties attending Mr. Bothwell's sale, at Kansas City, the preceding day can arrange to attend both sales. Write both of them for a free copy of the sale catalogue, that gives full particulars concerning the sales.

During the Trans-Mississippi Exposition, at Omaha, Mr. C. M. Irwin, Elm Beach farm, Wichita, Kas., made sales of Poland-China swine to Henry Wienaw, Howells, Neb.; Wm. Hederlich, Council Bluffs, Iowa; W. A. Gildersleeve, Wayne, Neb.; Porter Bros., Stanton, Neb.; Henry Bell, Ek-horne, Neb.; D. E. Ritchie, Rising City, Neb.; Matthew Eller, Schuyler, Neb., and Harvey Johnson, Logan, Iowa.

Dr. Bull's Cough Syrup stops that tickling in the throat. This reliable remedy allays at once irritations of the throat, sore throats, hoarseness and other bronchial affections.

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The Young Folks.

THE SERMON OF THE ROSE.

Willful we are in our infirmity
Of childish questioning and discontent.
Whate'er befalls us is divinely meant—
Thou Truth the clearer for thy mystery!
Make us to meet what is or is to be
With fervid welcome, knowing it is sent
To serve us in some way full excellent,
Though we discern it belatedly.
The rose buds, and the rose blooms, and the
rose
Bows in the dews, and in its fullness, lo,
Is in the lover's hand—then on the breast
Of her he loves—and there dies.—And who
knows
Which fate of all a rose may undergo
Is fairest, dearest, sweetest, loveliest?
Nay, we are children; we will not mature.
A blessed gift must seem a theft; and tears
Must storm our eyes when but a joy ap-
pears
In drear disguise of sorrow; and how far
We seem when we are richest—most secure
Against all poverty the lifelong years
We yet must waste in childish doubts and
fears
That, in despite of reason, still endure!
Alas! the sermon of the rose we will
Not wisely ponder; nor the sobs of grief
Lulled into sighs of rapture; nor the cry
Of fierce defiance that again is still.
Be patient—patient with our frail belief,
And stay it yet a little ere we die.
O opulent life of ours, though dispossessed
Of treasure after treasure! Youth most
fair
Went first, but left its priceless coil of
hair—
Moaned over sleepless nights, kissed and
caressed
Through drip and blur of tears the ten-
derest.
And next went Love—the ripe rose glowing
there,
Her very sister! * * * It is here; but
Where
Is she, of all the world the first and best?
And yet how sweet the sweet earth after
rain—
How sweet the sunlight on the garden wall
Across the roses—and how sweetly flows
The limpid yodel of the brook again!
And yet—and yet how sweeter, after all,
The smouldering sweetness of a dead red
rose!
—James Whitcomb Riley, in the Atlantic
Monthly.

Written for Kansas Farmer.

YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 45.

THE SPREEWALD.

Had we visited the Spreewald? No, we even had not yet heard of such a place. We disliked to admit this to our friend, Mrs. Abc, who propounded the above interrogation to us. We had been in Germany a whole year, and would like to have pretended we knew all about it; but we also knew that one might travel in the "Fatherland" many years and still there would remain interesting places to be learned about.

Mrs. Abc then kindly told us that the Spreewald was known as the German Venice; that it was situated about fifty miles southeast of Berlin; that the Spree river in that locality consists of many branches, enclosing marshy tracts of land, in all about thirty miles long by five or six miles wide, forming many little islands which had been drained to make them habitable, and the people living on these islands used the branches of the river as highways and traveled from point to point by boat; that there are no wagon roads, generally; that all the hauling of farm produce or wood was done by boat.

The people who inhabit this German Venice are as different from the German people generally as the Russians in western Kansas are different from American-born people. They are Wends, whose ancestors have inhabited the Spreewald for many centuries, keeping the ancient dialect, customs and manners of their forefathers so strictly that if any of the old gentlemen of five hundred years ago should come back suddenly they would feel as much at home as though they had left but a few days before.

My friend, Mr. Julius Caesar, once wrote a book about his little trip through Germany, some 1,949 years ago, and he found this same people and he called them Venedi. If he had possessed a "w" in his alphabet he would have spelled it Venedi, but like the famous Samivel Veller, he spelled it "wi" a wee.

These Wends are descended from the Slavonic tribes, who anciently possessed the greater portion of southeastern Europe. Their ancestors long years ago were driven from Bohemia and settled first along the Elbe river, and finally "pre-empted" the Spreewald, where they have lived in peace many ages. Long before the tenth century they became Christian in name, but they still retain many of the pagan notions of barbaric times. For instance, in 1520, Lewin vander-Schultenburg, Judge of the territory in which Spreewald is located, came upon a few men who were trying to get an old, white-haired man into the thicket in order to kill him—being true to the Slavonic teaching that the old and infirm

—good for work no more—should be killed. Lewin asked: "Where do you take the old one?" and they all in one voice exclaimed: "To God, to God." Lewin freed the old man, who became his servant, serving him faithfully for many more years. This little story I have translated from a German story book.

In the last century Frederick the Great tried to cultivate the land and colonize the people into a German race, but of no avail, only destroying the beautiful forests in trying to make fruitful fields. He sent many of his invalid officers to the Spreewald, where they recovered their health. They paid the peasants for their work, but after the death of Frederick the attempt was given up and the Wends were left to follow their own inclinations. Since then, however, much progress has been made in supplying the churches with German ministers, German Bibles, prayer books and hymn books, until to-day the preaching in Wendish is only in two of the churches, that of Burg and Kotbus. Although they are Christian in name, they still retain their beliefs in strange powers and goblins. They believe that a headless horseman (like the one that frightened Mr. Ichabod Crane) goes past the houses on stormy nights, at full gallop, and brings sorrow to the family if any member sees him.

After being "posted" concerning these interesting people we were very anxious to see them, and also to enjoy the boat ride on the Spree, among the little villages. Mrs. Abc informed us that Sunday was the proper time to go, as they always expected visitors on that day, and besides, the people would all be seen at church. Now, we endeavor to go to church every Sunday, and concluded that the Spreewald church would exactly answer our purpose for the next Sunday, and a party of seven was straightway

skirts "stand out" almost like those worn by ballet-dancers, and as the peasants walk along the skirts swish and swing most elegantly.

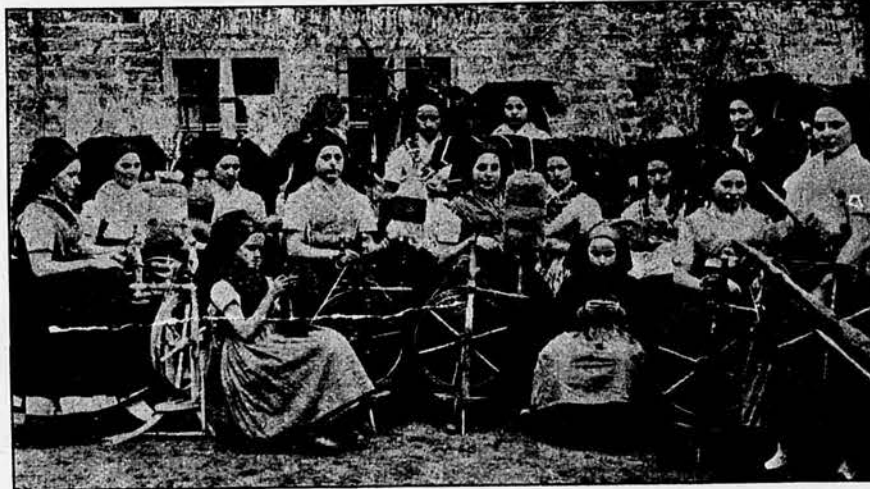
The road was pretty dusty and many of the women carried their white hose and slippers tied in a white cloth, and when near the church they sat down and completed their toilet.

They are a very devout people, the women walking to church with hands folded over the hymn book, their heads downcast as if in prayer, the men following at a respectful distance.

As we turned a bend in the road, we saw the old church, and the bell in the steeple was announcing the close of the first service, and that the second was about to begin. As we reached the little group of houses surrounding the church, I noticed that they are all built of logs, some few have clay roofs, but mostly straw-covered with green moss to hold the straw in place. Near the entrance to the church many people were standing; the greater number were visitors, but many peasants also, the women in the quaint dress before described and the men in somber black with high silk hats that had been transmitted from father to son for several generations.

No sooner had we alighted from the carriage than a pleasant young man approached us, cap in hand, and began talking. My friends all pointed to me as though they were deaf mutes, and between his Wendish German and my American Deutsch I discovered that he wanted to have us engage him to row us on the river through the German Venice. He was such a pleasing young man in appearance that we all at once became engaged to him, and told him to wait for us until after church service, when we would be pleased to have him for our guide and gondolier.

We entered the crowded church and



AN AFTERNOON PARTY IN BURG.

formed to visit the church in Burg and attend service.

On Sunday, July 10, we assembled at Goerlitzer bahnhof (station), and, after a very pleasant ride of two hours by train, we stopped at Vetschau, the nearest railway point for Burg, four and one-half miles distant. At Vetschau we found many carriages awaiting the train, for no Sunday in summer-time fails to bring a large number of people from Berlin, who, like ourselves, desire to see the quaint church in Burg, which is always thronged by the singularly picturesque congregation.

We found that we would be too late for the first service, but induced our Jehu to hasten his horses and bring us there in time to see the people coming out of the church at 11:30 o'clock.

We passed many going on foot to the second service, and their ancient costumes were certainly very interesting to us. The women and girls wore immense white linen head-dress, and I am still puzzled to know how they arrange it. It comes over the head very closely, showing just a little of the smoothly-parted hair, and the lower edge of the ear. The linen, very heavily starched, is so tied, folded or pinned that it flares out in a wing on either side of the head at least a foot long, and the cape portion of it, falling down over the back hair, reaches below the neck. All wore the same-shaped white head-gear and each one had on a close-fitting jacket of dark material, without sleeves, but a small white cotton sleeve from the under garment reached nearly half way to the elbow. A very brilliant-colored shawl or scarf was worn about the neck, crossed in front, and fastened behind the waist. The skirts, however, are the most interesting part of the costume, the length reaching half way between the knee and ankle, perhaps a trifle shorter. The color of the skirt is as pronounced as the scarf, and around the lower edge, if the owner is wealthy enough, is a wide braid of beautifully-flowered ribbon. These

obtained a fine position in the gallery, where we could see all the people. The church has two galleries and these are occupied by the men. There are many posts in the galleries which have hooks, upon which the men hang their high hats. Below, the main floor is occupied by the women, and at first glance, all the pews being filled, nothing could be seen but a solid mass of white head-dresses.

The organ sounded and twenty people surrounded the altar, ten on either side, five women and five men. An opening among the head-dresses revealed the fact that one woman on each side held a baby in her arms, and it was a christening we witnessed. The mothers holding the babies were surrounded by the nine on each side, and as all bent their heads in prayer, the minister blest first one child and then the other, touching the head of each three times with water. The language was Wendish and we could not understand it, except that part where he announced: "In the name of God the Father, Son and Holy Ghost, Amen."

After the service was over the baptismal party adjourned to a nearby "gasthaus," where they celebrated the occasion in truly good German style. We found our boatman awaiting at the door, fearful that some rival boatman would carry us off. We were soon seated in his little kahn (canoe), and he stood up in the stern and furnished the motive power. The little canals are too narrow for oars, generally, so a long pole is used, and the water is seldom over eight feet deep. Several other boating parties started from the church when we did, but we were the first in the procession of boats, as the others stopped to be pictured with the church for a background.

I would like to describe all the picturesque places we saw during the afternoon, for we were guided through every canal of the interesting part of the Spreewald, but it would require a separate page for that purpose. Children standing along the banks threw into our boat bouquets of beautiful water lilies,

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expecting a few pfennigs to be thrown them in return. Our Charon said: "Wait till we come to where my sister lives; she has the most beautiful lilies." We knew he was a loving brother and wished to please his sister, as loving brothers always ought to do; so we saved our pfennigs for her, and she did have very lovely lilies, and our boat was filled with the finest specimens I ever saw.

Although it was Sunday, there were a few peasants in the fields working, and we saw several boat loads of hay and grass which they had gathered for the cattle in the village. We passed through long lanes of waterway where the dense woods on either side formed a thick archway overhead, so that the sky could hardly be seen, and where the sun shone through an opening among the branches it made beautiful shadows upon the water. We rode slowly through this beautiful woodland till near 6 p. m., when we reached the Gasthof Lehde. From this point we were to go by land to Lubbe-neau to take the train for Berlin.

In the village of Burg is the spinning-room where the women and maidens assemble, and, accompanied by the whirr of the spinning-wheel, they sing their old folk songs and tell the stories which have interested their mothers and grand-mothers for hundreds of years.

Belonged to Him.

The advantage a millionaire has over a workingman is that he may assume the other's part. The workingman cannot play the millionaire. Some amusing incidents are told in Harper's Weekly of patriotic youths who have given up lives of ease and pleasure to work and live like any common sailor in the naval reserves. One of them was lately swabbing down the deck under the supervision of an old tar, who exclaimed:

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KANSAS FARMER

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H. A. HEATH, Advertising Manager.

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KANSAS FARMER CO., Topeka, Kas.

A subscriber inquires for a remedy for English sparrows. He thinks he can spare about 5,000. Information will be gladly received at this office.

The records of the State University show that the snow storm of October 17 was the earliest of its kind known in Kansas during the thirty-one years' record of observations taken at the University.

The weekly marketings of wheat in this country are now of great magnitude. The prices which are going into the hands of farmers are about 25 cents per bushel below prices of corresponding dates last year.

Kansas has just taken another high honor. The salts of the country were in competition at the Omaha Exposition, and Kansas has been awarded the gold medal on the exhibit of the Kansas Salt Co., of Hutchinson.

The general election will occur next Tuesday. With the contentions of politicians over spoils and partisan advantage the Kansas Farmer has nothing to do. National policies and economic questions as they are affected by State elections are important to the citizen and should be carefully studied by every voter. But the question of the enforcement of law or its non-enforcement in his own county is a home question that is decided, not by the solution of the Philippine question, not by the solution of the silver question, not by the solution of the national bank question or the State bank question, but largely by the selection of County Attorney. In Shawnee county large numbers of temperance voters have determined to disregard party lines in the matter of County Attorney and cast their votes for Mr. Eugene Wolf, having become satisfied that he will give an efficient and conscientious enforcement of all laws as required by the statutes, and recognizing the definition of his duties in the statutes as paramount to all other influences. If temperance voters of all parties throughout the State will act on this principle there will be a rapid diminution of complaints of disregard of the prohibitory law.

RECENT AND IMMINENT CHANGES.

The uneasiness expressed lest the world shall have approached a horseless age, if not an age when domestic animals of all kinds shall be dispensed with, seems to be without foundation in statistics. It may surprise people who, a few years ago, suffered heavy losses on horses, to know that the electric car, and even the bicycle, are not causing a diminution in the number of horses used. In a book now in course of preparation by the most painstaking statistician in the United States, Mr. C. Wood Davis, of Kansas, the world will presently be presented with the most comprehensive and comprehensible volume of statistical information ever published. By courtesy of Mr. Davis, the Kansas Farmer has a duplicate of a page of the copy prepared for this book. It deals with the ratios of domestic animals to population in that representative little country, the Kingdom of Denmark. That country is one of more settled conditions than prevail in a new country like the United States, and, while it doubtless differs from other European countries as every country differs from every other, it will be found interesting to note the recent changes which have taken place in Denmark, as a sample of effects of a high and established state of civilization.

The dates taken for comparison are 1871 and 1896, the period being twenty-six years. In 1871, the population of Denmark was 1,877,000, in 1896 it was 2,373,000, an increase of 27.3 per cent. The number of horses in Denmark in 1871 was 317,000, in 1896 it was 426,000, an increase of 34.4 per cent. In 1871 the average 100 people in Denmark had 16.9 horses, in 1896 the average 100 people had 17.9 horses, an increase of one horse for each 100 people. This does not give evidence of the advent of the horseless age, which has been so much written about.

Denmark presents an interesting case as to cattle. In 1871 that country had 1,239,000 cattle, in 1896 it had 1,896,000 cattle, an increase of 53 per cent., against the increase of 27.3 per cent in population. In 1871 the average 100 people had 66 cattle, in 1896 they had 79.9 cattle, an increase of 13.9 cattle per 100 people.

The statistics as to swine make a still stronger case. In 1871 Denmark had 442,000 swine, in 1896 it had 990,000 swine, an increase of 101.3 per cent., as compared with the 27.3 per cent. increase in population. In 1871 each average 100 people had 23.5 swine, in 1896 the average 100 people had 37.5 swine, an increase of 14 swine for each 100 people. It has been surmised that the Danes got their name from being descendants of the Israelite tribe of Dan, one of the lost tribes of Israel. If this be true, the modern "Dans" seem to be rapidly forgetting, or at least neglecting, to obey the Mosaic interdiction against eating swine's flesh.

The statistics as to sheep are different. In 1871 Denmark had 1,842,000 sheep, in 1896 it had only 1,270,000 sheep, a decrease of 31.1 per cent. In 1871 each average 100 Danes had 98.1 sheep, in 1896 only 53.5, a decrease of 44.6 sheep per 100 people.

Mr. Davis remarks: "Assuming that 20 per cent. of the cattle, 100 per cent. of the swine and 40 per cent. of the sheep were slaughtered yearly, and that the average carcass yields 600 pounds of beef, 112 pounds of pork, and 70 pounds of mutton, respectively, the stock of 1896 would have furnished 228,000,000 pounds of beef, 100,000,000 pounds of pork, and 35,000,000 pounds of mutton, or an aggregate of 363,000,000 pounds of flesh foods, being equivalent to 153 pounds for each unit of the population of that year. A similar computation for 1871 gives 128 pounds as the consumption of meats for each unit of population for that year, so that there appears to have been an increased consumption of meats amounting to 25 pounds for each unit of population, or an average yearly increase of nearly one pound of meat for each inhabitant. No doubt the scale of living in Europe is improving. The increased consumption of meat in Denmark shows it for that country.

The resources of the earth are doubtless to be taxed for the comfort of man more severely during the first quarter of the next century than ever before. Mr. Davis has long been the apostle of the doctrine that the increasing population of the earth with the increasing demands for food-stuffs presage more active competition for the products of the food-producing farms of the world, and therefore better times for those who bring forth bread and meat. If it shall appear that not only do mouths increase in numbers, but that their demands are for higher grades of food, grades that

require more area for the production of the amount required per unit of population, then the time of active competition for the food products of the soil is coming on the double quick.

There is, in connection with the crowding of population upon production, another field of investigation which will not likely escape consideration in Mr. Davis' book, namely, the relation of the demand for wheat bread and beef, pork and mutton to the advance of western civilization in the orient. It has been noted that since the Japanese took to western ways, wheat bread has been taking the place of rice as an article of diet. China is likely to become modernized, if she is not even to be divided among western nations. The Philippines will become bread-eaters or will have to give place to bread-eaters. The contentions in Africa are likely to lead to revolutions in the food habits of a considerable region.

Better methods of agriculture in some of the dark and poorly-tilled quarters of the globe will make additions to the food produced. But while changes in this direction have been in progress for a good while, there has been almost no addition to the bread-bearing acres except in America. Additions here were on an enormous scale on the opening of the wheat lands of Minnesota, the Dakotas and Kansas during a period which terminated more than ten years ago. Since that time as many acres have gone out of cultivation in bread crops as have been added, so that there has, the world over, been no increase in bread-producing areas. The same is substantially true of grazing areas. The sudden expansion of agriculture over the plains country east of the Rocky mountains and the filling of the inter-mountain valleys with farms and herds, produced such additions to the world's food supplies that prices were greatly depressed until the accumulation of these over-supplies had been consumed. The market statisticians all over the world agree that the surplus has now been consumed. Present requirements, according to present scales of living, require each year a full average crop. The recent years of over-abundance may have favored habits of more luxurious living than had formerly prevailed. The record of Denmark, in the consumption of meat, corroborates this view.

The appearance of Mr. Davis' book, dealing in detail with all these questions, will mark a distinct advance in classified knowledge of a subject of great interest to all mankind, and of passing interest to the farmer, for whose productions there appears to be imminent growing competition, leading steadily to better prices.

SHALL THE UNITED STATES BE MORE GENEROUS THAN JUST?

Before the war with Spain came to a close, it was universally expected that, according to custom, the United States would require from Spain a cash indemnity covering our expenses in enforcing the demands of justice for Cuba. When the protocol was made, terminating hostilities, it was announced that this country would not demand any "cash" indemnity. Those who thought about it at all presumed that such territory as might be demanded would be in lieu of the usual cash indemnity. The commissioners having in charge the negotiation of the treaty of peace are reported to have finished the provisions as to Cuba and Porto Rico without involving this country in any obligations as to debts of Spain's creation.

The announcement is made, seemingly with authority, that it has been determined that the United States shall take the entire Philippine group of islands, and that such a demand has been presented to Spain's treaty commissioners. What appears to be a feeler has been telegraphed from Washington suggesting that, on account of some moneys expended in times past, by Spain, for the betterment of the Philippines, the United States should pay to that country or to her creditors a rather uncertain sum of money, sometimes estimated at \$40,000,000.

No notice seems to be taken of the fact that for some three hundred years Spain has collected rich revenues from the islands, doubtless far in excess of all expenditures for betterments to which this country may succeed. The account of the United States for costs incurred, in bringing Spain to justice, seems, in a fit of generosity, to be forgotten. It is a surprisingly potent cudgel that the administration will place in the hands of the opposite party if generosity to the culprit at bar—Spain—shall outweigh justice to American taxpayers, who will have to foot the cost bill if Spain does not.

KANSAS BREEDERS AT OMAHA.

Kansas was well represented at the live stock show at the Trans-Mississippi Exposition, at Omaha, but not to the extent that would have been possible but for the short time given for preparation. However, those breeders who did succeed in helping out the State have no cause for regret, thanks to the co-operation of the Kansas Commission.

Kansas was most strongly represented in the Poland-China swine division, which was by all odds the most numerous of pure-bred classes of stock at the Exposition. In some rings there were as many as forty-two entries, and our breeders had to compete with show herds that had been exhibiting at State fairs for the past two years, and which had, by purchase and special preparation, been well fortified for this show. Yet in spite of all this, some good prizes were secured. In each class there were three cash prizes, one "highly commended" and one "commended"—five prizes in all, and to secure any one of these places was a great honor, in view of the strong rings shown.

The Kansas exhibitors of Poland-Chinas were: R. S. Cook and Elm Beach farm, Wichita; H. G. Sims, Smith Center; C. F. Hutchinson, Bellaire, Smith county; Kirkpatrick & Son, Connor, Wyandotte county; Collins & Gresham, Welda, Anderson county, and W. P. Goode & Sons, Lenexa, Johnson county.

The prizes awarded Kansas Poland-Chinas were as follows: For boars under 6 months, first prize, \$15, to H. G. Sims; sows under 1 year, second prize, \$12, to R. S. Cook; aged herds, fifth, "commended diploma," to Elm Beach farm; boar and three sows under 1 year, fifth, "commended diploma," to R. S. Cook; sweepstakes boar, any age, fifth, "commended diploma," H. G. Sims.

In the Merino sheep department of the Exposition, Kansas breeders were outstanding winners. J. N. Grau, Asherville, Mitchell county, showed three Delaine Merinos and won prizes as follows: Ram, 2 years and under 3, first prize, \$12; yearling ewe, third, \$4; ewe under 1 year, fifth, "commended diploma;" sweepstakes ram, second, \$12.

E. D. King, Burlington, had the great Merino sheep exhibit of the Exposition, with entries in every section in the Merino (A) and Merino (B) classes and one entry in the Delaine Merino class. His winnings were phenomenal—in all, forty-seven prizes, consisting of nineteen first, fifteen second, five third, and eight sweepstakes prizes, aggregating \$497 in cash.

Sunny Slope Herefords, owned by C. S. Cross, Emporia, constituted the only cattle exhibit from Kansas except the non-registered special exhibit of Polled Kansas cattle by Hon. W. W. Guthrie, Atchison. The Hereford cattle show was the largest and best ever made in America. Every ring was hotly contested, and yet Mr. Cross successfully secured the following prizes: Bull, 1 year and under 2, third prize, \$10; cow, 3 years or over, second, \$15; heifer, 2 years and under 3, fourth, "highly commended diploma;" heifer, 1 year and under 2, first, \$20; heifer under 1 year, second, \$10; aged herd, third, \$10; young herd, second, \$15; four animals, get of sire, third, \$10; sweepstakes cow, any age, third, \$10; grand sweepstakes aged cow, second, \$15; grand sweepstakes yearling cow, first, \$12; grand sweepstakes heifer calf, third, \$6; grand sweepstakes aged herd, second, silver medal and \$50; grand sweepstakes young herd, second, silver medal and \$50. Mr. Cross won in the foregoing classes \$233 and two silver medals, and from the American Hereford Association he won \$460, which, with the duplication of class prizes by the Kansas Commission, makes Mr. Cross's Kansas Herefords win the neat sum of nearly \$1,000.

The Kansas Commissioners, in addition to the duplication of prizes won as above mentioned, have already paid "expense purses" as follows: Elm Beach farm, Wichita, \$180; R. S. Cook, Wichita, \$180; C. F. Hutchinson, Bellaire, \$70; W. P. Goode & Sons, Lenexa, \$28; Collins & Gresham, Welda, \$14; H. M. Kirkpatrick & Son, Connor, \$105; H. G. Sims, Smith Center, \$70; Hon. W. W. Guthrie, Atchison, \$50. Total for duplicating premiums and expense purses, \$1,500.

The regular annual meeting of the members of the American Hereford Cattle Breeders' Association will be held at the Sherman House, in Chicago, Ill., on Thursday, the 10th day of November, 1898, at 7:30 o'clock p. m. Several important amendments to the rules governing entries in the Record and to the by-laws of the association have been proposed for adoption at this meeting.

Horticulture.

THE PEACH TWIG-BORER.
(Anarsia lineatella Zinn.)

Press Bulletin Kansas Experiment Station.

A number of inquiries have been received at the Department of Entomology, concerning the peach twig-borer, which, during the past summer, has been doing more or less damage in various parts of the State. It is in response to these inquiries that the following information regarding this pest is offered.

Although the insect seems to be common in the eastern part of the State, the department has no record of its doing any extensive injury. It certainly does not commit at present such depredations as it is known to do in some of the other States. In this State the insect has only been observed to attack the peach, while in other States, noticeably Oregon and California, it has a wider food range, attacking the peach, pear, apricot, prune, nectarine and almond trees.

The damage to the trees is done by the larvae, or worms, which bore into the terminal shoots of the new growth, causing them to wither and die, thus checking the growth of the twig.

The adult is a small moth, with an expanse of wings of about one-half of an inch, and is of a dark gray color, with darker spots on the fore wings. The moth seems to deposit her eggs at the base of the petioles of the leaves. The eggs when first deposited are white in color, but just before hatching they turn to an orange color. They are about 1-

July 10.—All the larvae had pupated.
July 7.—First appearance of adults.
July 26.—Last appearance of adults.
August 5.—Larvae were collected averaging about 3-8 of an inch in length.
August 26.—First appearance of adults.

The department was not able to find the pupae out of doors, but in confinement the larvae seemed to pupate in any sheltered spot, as in dried and shrivelled leaves. By spinning a few threads the larvae would draw the edges of the leaves together about themselves, and within the shelter thus provided they passed into the pupal stage. Often they would not go to the trouble to find shelter but would attach themselves unprotected to the sides of the breeding-case.

By consulting the above record of the different broods it will be seen that the pupal stage lasts from nine to fourteen days. The pupae are brown, somewhat robust, and are about 1-4 of an inch long by one-third as wide.

To combat the insect one should cut off and destroy all twigs containing the larvae.

Grafting.

Editor Kansas Farmer:—I would like to have some information, through the columns of your paper, on the subject of grafting, by some one who knows how.

When is the best time to graft, and how is it performed? Also best manner of caring for grafts through the winter? I wish to graft peach scions on apricot stocks. If Prof. Faville or some other

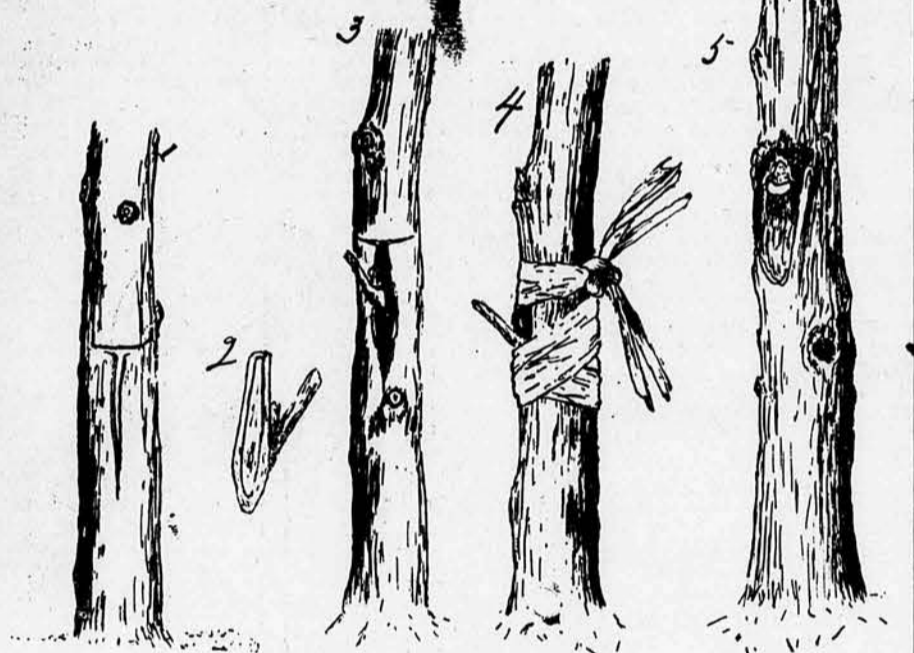


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THE PROCESS OF BUDDING FRUIT TREES.

of an inch in length by about 1-125 of an inch in width, and are attached to the twig by a gluey substance.

The young larvae, or worms, appear in about two weeks from the time that the eggs are laid. When just emerged from their eggs they are about 1-25 of an inch long, of a yellowish color, with the head and upper part of the next segment black. The young larvae bore into the terminal buds of the new growth of the tree, causing the terminal buds and shoots to wither and die, and finally to fall to the ground. The larva does not confine its attacks to one shoot, but in time will abandon the original burrow for more tender branches. Thus in the course of its life history one larva will destroy a number of terminal buds and shoots. In the case of the peach there is considerable exudation of gum from the wounds made by the larvae. When the larvae are numerous the tree of necessity suffers a check in its growth, and its appearance is marred by the uneven and irregular growth that follows such an attack. The mature larva is about 3-8 of an inch long, of a reddish brown color, with the head and the upper part of the next segment a dark brown or black.

From the observations made this summer the following record was made of the appearance of the different broods:

May 17, 1898.—Larvae were collected averaging about 3-8 of an inch in length.

May 24.—Larvae were beginning to pupate.

June 7.—First appearance of adults.

June 20 to 26.—Larvae were collected averaging about 1-8 of an inch in length.

July 9.—Larvae were collected averaging about 5-16 of an inch in length.

June 28.—Larvae were beginning to pupate.

good authority will enlighten, I shall be obliged.

SUBSCRIBER.

Herington, Kas.

Root-grafting is usually practiced indoors, after the winter has set in. A good time to begin the operation is near the beginning of the new year. In root-grafting the apricot or peach, the stocks used are young trees grown one year from seed, and are called "seedling stock." These are dug up in the autumn and stored in a cool cellar, in sandy loam, until ready for grafting. The scion should be of the preceding season's growth and should contain two or more healthy leaf buds. Scions are generally cut in late autumn, or during mild weather in early winter, and are commonly stored in moist sawdust, moss or leaves in a cool cellar until needed for use. The scions should not be kept so moist as to cause a swelling of the buds nor so dry as to cause shriveling.

In root-grafting the plum, cherry, peach, apricot and fruits of that class, the whip graft or side graft is used. The whip graft is the method usually employed, and is made as follows: The scion used is about six inches in length. The whole root is used for the stock, with the above fruits, cutting off about an inch from the end of the root. The scion and stock should be about the same thickness; both are cut off with a slanting cut, about an inch long; a tongue is then formed on each by cutting the wood longitudinally for a short distance on the bevel already made, thus forming a tongue. In joining, the tongue of the scion is well inserted into the split of the stock, pushing it well down with considerable force, fitting it so that the cambium of the scion will coincide with the cambium of the stock. The parts are held together best by means of waxed cloths or bands, made by spread-

ing melted wax over thin muslin, which is cut into narrow strips when dry. The wax for making waxed cloth is made of a mixture of four parts of resin, two of tallow and one of beeswax. All of the parts about the union should be well covered with the waxed cloth or bands. The grafts are then packed in sand or sandy loam in a cool cellar until spring. The scions should be covered by the earth packing in such a way as to cover only the waxed cloth.

In planting out in the spring, place the grafts in the ground up to the top bud. In root-grafting, the operator should bear in mind that the roots should never become dry. Use only sharp knives in performing the operation. A good shoemaker's knife with a thin blade is the best knife to use. E. E. FAVILLE.

[Professor Faville furnished excellent India ink drawings illustrating root grafting. We had these photo-engraved, but, unfortunately, the engravings and drawings were lost by the express company. Rather than longer delay publication of the article, we give it without the excellent illustrations furnished, and present below illustrations showing the processes of budding. These may be of some service.—Editor.]

The October meeting of the Douglas County Horticultural Society was held at the home of Forrest Savage.

"Pruning Orchards and Vineyards." This was the special topic for this meeting. B. F. Smith was called upon to lead in the discussion. He does not consider spring the proper season for pruning. He told of severely pruning two large apple trees in the spring and both died the next year from the effects. He prefers the months of November and December, after the wood has matured and the trees have gone to rest. While he does not believe in the cutting away of much wood from the apple trees, he believes that all superfluous branches and suckers should be cut away and the tree kept as symmetrical as possible. In his opinion grape vines were seldom pruned enough. Too much wood was allowed to grow at the expense of the fruit. He referred to Philip Albach's method of pruning as a model. He never had an excess of wood, but always plenty of good full bunches of grapes.

G. W. Maffet said the Eastern method of starting the limbs of the apple tree several feet from the ground and then keeping the tree severely pruned would not do for this climate. The tree should be started low to keep the bark from sun-scald and the top should be allowed quite dense, as the Kansas sun would be sure to throw its beams to every branch and branchlet.

Judge Emery said that in 1858 he had an orchard planted on the hill. The trees were trimmed away up, so that a person could walk under the lowest limbs. After a hard rain and a blow from the north, away would go the trees at an angle toward the south. Then, after the trees were straightened, a storm from the south would blow them over to the north. So between the high heading, the rain and the wind he lost his orchard. The President told of his system of pruning in New York State, which was to cut away the middle of the tree to the free access of sun and air, but he was satisfied that the plan would not do for Kansas.

"Peach and Pear Trees." B. F. Smith stated that the proper way to prune these trees was to cut the tops back every winter, in order to make them bushy. Their tendency was to grow too tall. Especially was this true of the peach and the standard pear tree. This question of pruning is a very important one as so many orchards have been ruined by the

injudicious use of the saw and the axe. Judge Emery was called upon by the President for a speech. He cordially responded in a two-minutes' interesting talk. The Judge has lately visited the great Pecos valley, in New Mexico, whose altitude is 3,300 feet above sea level and whose climate is the healthiest in the world, where all consumptives are speedily cured. In this great valley everything is grown by irrigation, and with the greatest perfection, for, as yet, the insect enemies of the orchard and the farm have not found a lodgment there. He gathered a basket of beautiful apples from one of the noted orchards of the valley. This fruit was as perfect in shape and color as the eye could conceive. Nothing could be more beautiful. These he distributed among the ladies present. In his talk, which was not confined strictly to horticulture, he gave the members many good suggestions. He thinks that every farmer and horticulturist should be, to a certain extent, a specialist. He does not advise that all the eggs be carried in one basket, yet he believes we should all make a specialty of some one thing in order to excel in that line. On his late trip he met with several specialists. One man made a specialty of bees and was getting rich at it; another made a specialty of celery; another of beets; another of high-bred calves, and so on, and they were all making money and getting rich.

The prompter told the strawberry-growers to be sure and cover their beds for winter protection. The best protection is with oat straw or prairie hay. Wheat straw has too much chaff in it, which would make trouble by sprouting in the spring. Plowing for new beds should be done late this fall. The first part of December is the best time.

Appropriate resolutions to the memory of the late George Y. Johnson were presented and adopted.

After a vote of thanks to Mr. and Mrs. Savage the meeting adjourned.


State of Ohio, City of Toledo, Lucas county, ss.

Frank J. Cheney makes oath that he is the senior partner of the firm of F. J. Cheney & Co., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that cannot be cured by the use of Hall's Catarrh Cure.

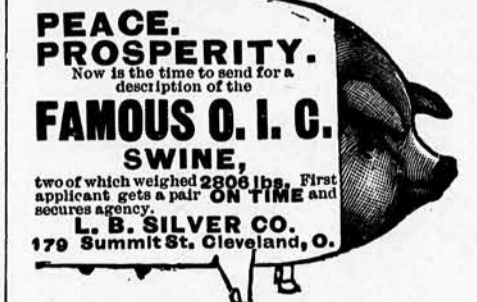
FRANK J. CHENEY.
Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1886.
A. W. GLEASON,
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Sheep Department.

Conducted by J. CLARENCE NORTON, Moran, Kas., to whom all letters should be addressed.

Bulletin on Nature and Treatment of Sheep Scab.

The United States Department of Agriculture has in press and will soon issue Bulletin No. 21, Bureau of Animal Industry, entitled "Sheep Scab: Its Nature and Treatment." This bulletin was prepared by D. E. Salmon, D. V. M., Chief of the Bureau of Animal Industry for the purpose of correcting many erroneous ideas prevalent regarding the exact nature of the disease and the methods by which it may be eradicated, and to meet the necessity of exact information on the subject. It begins with a historical introduction showing that this disease, one of the oldest known, most prevalent and most injurious maladies which affects this species of animals, is a contagious skin disease caused by a parasitic mite, and that the impression that has arisen among some sheep-raisers that the scab is hereditary is incorrect.

The losses in home industry and to the export trade are referred to in the bulletin, and in it will be found descriptions of the various forms of sheep scab and of conditions which may be mistaken for scab.

Attention is called to the necessity of keeping sheep under proper hygienic conditions, but that alone, it is stated, though of importance in connection with the subject of treatment, cannot be relied upon to cure scab. The only rational treatment consists in using some external application which will kill the parasites.

The bulletin says: "By far the most rational and satisfactory and the cheapest method of curing scab is by dipping the sheep in some liquid which will kill the parasites."

A description is given of various kinds of dipping plants for use on small and large farms, directions for preparing certain home-made dips and directions for dipping.

The bulletin also contains extracts from the federal laws and regulations relative to sheep scab and gives notice that the Department of Agriculture will hereafter take such steps as may be required to stop the dissemination of this contagion through the channels of interstate commerce.

Dr. Salmon also says: "The disease of scab is one of the most serious drawbacks to the sheep industry, and results in enormous financial losses. Yet, despite its insidious nature, its ease of transmission, its severe effects, and its prevalence in certain localities, it is a disease which yields readily to proper treatment. If all the sheep-owners of the country would dip regularly and thoroughly there is no reason why this scourge should not be totally eradicated from the United States. There should be stringent scab laws in every State, with State inspectors to see that these laws are carried out."

The bulletin is illustrated by six plates and thirty-six text figures.

Inquiry About Sheep.

Editor Kansas Farmer:—Please give me, in your paper, the breeds of about three or four of the largest sheep. I want the largest ones for mutton and the ones that have the longest wool.

There are too many advertising Poland-China hogs in the Kansas Farmer and neglecting the sheep. There are half a dozen or more farmers in this vicinity who are in favor of raising large sheep.

Just recently there have been thousands of sheep shipped into Poweshiek county, Iowa. The sheep industry commenced there one year ago and it is a success in that county, and the demand for sheep is increasing. The farmers were surprised in receiving so large profits on the money in such a short time. The lambs, if well taken care of, will be ready for market in eight months.

Nashville, Kas. J. M. BAKER.

Dr. Bull's Cough Syrup cures whooping-cough and measles' cough. This wonderful remedy will save the children from many a distressing coughing spell and soon effect a cure.

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A device for attaching a horseshoe to the foot without nails has been invented in Scotland. Now if some one will invent a horse tall that can't be docked, and a device that will make excessive checking impossible, the poor horse will begin to think life worth living.

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Costly Monster Missiles.

The invention of the modern high-power guns have brought into use projectiles that are the finest product of ingenuity and improved machinery, calling forth the best efforts of skilled artisans. Instead of cast-iron globes that could be turned out by any foundry twenty years ago, use is now made of the grades of steel, tempered with as much care as a razor blade, and ground and polished with as much solicitude as a surgical instrument.

The complete story of the manufacture of armor-piercing projectiles by the steel works in Reading is a secret so carefully guarded that it has always been hard to obtain, but at present, when the big plant is running on a war footing, it is still more difficult, as only employes and government inspectors are permitted to enter the company's immense machine shops. Shells 4, 5, 6, 8, 10, 12 and 13 inches in diameter are being made for the navy, and 8, 9 and 12 inch sizes for the army.

Here is the history of the making of a 10-inch shell, and as the projectiles of all sizes are made in the same manner it gives some idea of the vast amount of labor required to equip a fleet.

In the casting shop molten steel is cast into a solid piece twelve and a half inches in diameter. It is then taken to the forge room, where, after being reheated, it is hammered down to 10 1/2 inches, and considerably elongated during the process. Next it is conveyed to the machine room and placed upon a specially constructed lathe and turned and pointed. The only parts of the shell that bear against the rifled surface of the gun are the conical ends and the copper ring that encircles the base. This ring is soft, so as not to injure the rifling. After the finishing cut has been given to the projectile the diameter of the largest part of the cone is 10.5 inches and that of the body of the shell is 9.90 inches.

Then the "extracting score" is cut. There is a V-shaped groove, in which a tool can be fastened when it is desired to withdraw the shell from the gun. The next move is the boring of a five-inch hole in the base of the projectile to a depth of fourteen inches. Tempering follows. In this process the shell is suspended, point downward, into a receptacle filled with molten lead, and is allowed to settle until the metal rises above the cone base.

At first the temperature of the lead is but 500°, but it is increased gradually to 1,300°. The work of heating continues for many hours, when the shell is withdrawn and sprayed with water, to give it a hard exterior. Next follows a bath in a vat filled with secret ingredients, after which the shell is cooled with a jet of water.

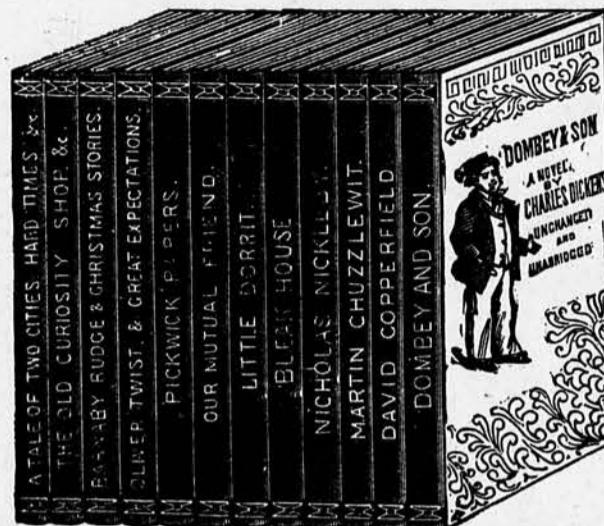
Once more the shell goes back to the machine shop, where the hole in the base is widened half an inch and the depth increased two inches. The hole is then threaded and a screw plug inserted. The grinding room is next. Here the extreme diameter of the cone is ground down to 10 inches exactly. The workmen now apply the "band score," which is a groove for the reception of the soft copper band.

After the soft steel cap has been fitted to the tip of the projectile, on the theory that when the shell strikes the armored side of a battleship the point will be protected without any interference with its penetrating power, the work is finished so far as the steel company is concerned. It is then boxed up and shipped to some United States arsenal, where it is filled with an explosive compound and made ready for its work of destruction.—Philadelphia Record.

Raft Towed 700 Miles.

Ten thousand piles chained together in one immense raft were recently towed into the bay of San Francisco, having been brought from Stella, Wash., 700 miles away. The dimensions of the raft were: Length, 600 feet; breadth, 50 feet; depth, 45 feet. Over 5,000,000 lineal feet of lumber was contained in the raft, which drew thirty feet of water. Twenty

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OUR SPECIAL OFFER: We will send the complete set as above described, in twelve volumes, by mail, postpaid, also the Kansas Farmer for one year, for only \$1.50. Address KANSAS FARMER CO., Topeka, Kas.

steamers of average size would have been necessary to convey it in the ordinary way. The journey was made without accident, unusually favorable weather having been enjoyed all the way.

Learn It Early.

"Johnnie," said his father, "I'm surprised to hear that you have dared to dispute with your mother." "But she was wrong, pa," replied Johnnie. "That has nothing to do with it," said the old man. "You might just as well profit by my experience and learn, once for all, that when a woman says a thing is so, it is so, whether it is so or not."

The Royal William.

John Gilroy, of De Kalb Junction, writes the Family Herald and Weekly Star with reference to an item recently published in these columns about the Royal William, the first steamship to cross the Atlantic. Mr. Gilroy was a boy in Quebec at that time, and saw the Royal William when she was preparing for her trans-Atlantic voyage. He says that the statement that she was built at Wolfe's Cove is not correct; she was built on what was then called Munn's yards, on the St. Charles river.

The World's Telegraph System.

The total length of the world's telegraph system is 4,908,921 miles, not counting the 180,440 miles of submarine cables. Were this all in one continuous line it would wrap around the equator about 198 times. The moon and earth could be connected by twenty lines, with enough to spare to connect every country on earth. These lines are distributed as follows: Europe, 1,764,790 miles; Asia, 319,685 miles; Africa, 99,419 miles; Australia, 217,479 miles; America, 2,516,548 miles. Europe in 1860 had only 78,000 miles of telegraphs.

A Woman's Chance of Life.

Writing in the English Illustrated Magazine, on the above subject, Mr. J. Holt Schooling says that "of 1,000 women at the age of 20, 94 live ten years more, thus 94 in 100 live ten years more and 6 do not; the chance at age of 20 of a woman living to age of 30 being, therefore, nearly 16 to 1 in favor of living. Similarly, of 1,000 women living at age of 30, 806 live twenty years more; so we may say that 80 in 100 live to age 50, and that 20 do not; the chance at age 30 of a woman living to age 50 being, therefore, 4 to 1 in favor of living. Again, of 1,000 women living at age 60, 250 live twenty years more—i. e., 25 in 100 live to age 80, and 75 do not; the chance at age 60 of a woman living to 80 being 1 in 3."

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THE STRAY LIST.

FOR WEEK ENDING OCTOBER 20, 1898.
Lyon County—H. E. Peach, Clerk.

MARE—Taken up by Alfred Keelander, in Pike tp. (P. O. Plymouth), October 8, 1898, one dark bay mare, about 9 or 10 years old, about 15 hands high, one white front foot, white stripe in forehead, weight about 1,000 pounds.

FOR WEEK ENDING OCTOBER 27, 1898.
Allen County—C. A. Fronk, Clerk.

BULL—Taken up by David Cation, in Cottage Grove tp., one red bull, 2 years old, with white on belly and brush of tail, no marks except it be a small notch out of upper side of right ear near the point.

COW—Taken up by Bowman Bros., in Lincoln tp. (P. O. Lebo), September 8, 1898, one red cow, 3 years old, dehorned, hole in each ear, slit out, white face, no brands.

CALVES—By same, one red spring heifer calf, with white face, and one black spring heifer calf.

SUNNER COUNTY—W. E. Wood, Clerk.
HORSE—Taken up by Abe Muma, in South Haven tp., October 4, 1898, one bay horse, left fore foot wire out; valued at \$18.

FOR WEEK ENDING NOVEMBER 3, 1898.
Montgomery County—D. S. James, Clerk.

PONY—Taken up by John Dunham, in Caney tp. (P. O. Havana), one light bay pony, 4 years old, 5 feet 2 inches high, left hind foot and left fore foot white to pastern joint.

Finer and Faster Than Ever.

The California Limited, Santa Fe Route, solid between Topeka and Los Angeles.

Time, 50 1/2 hours.
Pullmans, dining car, buffet car, smoking car with barber shop, observation car with ladies' parlor. Electric lighted.
Three times a week, beginning November 2.

Address Agent,

The Atchison, Topeka & Santa Fe Railway,
Topeka.

BARNYARD DOCTOR.

A wonderful soap for all sores and wounds on animals. Warranted to cure horses injured on barb wire, all running sores, injured hoofs, Cows with Sore Bags, Scabs on Sheep, Footrot. Does it better and quicker than any other remedy. Every farmer should have it. By mail for 15 cents. Big discount to agents. The Cincinnati Soap Co., Cincinnati, O.

ADVERTISERS.

I AM an advertising agent who would be pleased to secure your order whether for one time or one year. I shall be pleased to quote you rates for any paper or a list of papers. Write me for my inside rates; your request will have my personal attention, and be promptly answered. Louis V. Urm, fifteen years experience with Agricultural Publication, Times Building, N. Y.

When writing advertisers please mention Kansas Farmer.

MARKET REPORTS.

Kansas City Live Stock. Kansas City, Oct. 31.—Cattle—Receipts since Saturday, 7,125; calves, 549; shipped Saturday, 2,815 cattle, 1,012 calves.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include DRESSED BEEF AND SHIPPING STEERS, WESTERN STEERS, NATIVE HEIFERS, NATIVE COWS, NATIVE FEEDERS, NATIVE STOCKERS.

Hogs—Receipts since Saturday, 6,533; shipped Saturday, none. The market was 2 1/2 to 5c higher. The following are representative sales:

Table with columns: No., Price, No., Price. Rows include various hog sales.

Sheep—Receipts since Saturday, 7,833; shipped Saturday, 2,700. The market was weak and 15c lower. The following are representative sales:

Table with columns: No. of lbs., Price, No. of lbs., Price, No. of lbs., Price.

Chicago Live Stock. Chicago, Oct. 31.—Cattle—Receipts, 10,000; market slow, but generally 10c higher; beef steers, \$4.00@4.55; cows and heifers, \$1.75@4.50; Texas steers, 2.75@3.50; westerns, \$3.50@4.50; stockers and feeders, \$2.75@4.50.

St. Louis Live Stock. St. Louis, Oct. 31.—Cattle—Receipts, 2,670; market steady to 10c higher; beef steers, \$4.25@5.50; stockers and feeders, \$2.50@4.50; cows and heifers, \$2.00@4.50; Texas and Indian steers, \$2.75@4.00; cows and heifers, \$2.00@3.25.

Chicago Grain and Provisions. Table with columns: Oct. 31, Opened, High'st, Low'st, Closing. Rows include Wheat, Corn, Oats, Pork, Lard, Ribs.

Kansas City Grain. Kansas City, Oct. 31.—Wheat—Receipts here to-day were 584 cars; a week ago, 609 cars; a year ago, 312 cars.

Corn—Receipts here to-day were 53 cars; a week ago, 33 cars; a year ago, 129 cars. Sales by sample on track: Mixed, No. 2, 29 1/4@29 3/4; No. 3 mixed, nominally 29@29 1/2; No. 4 mixed, nominally 28c; no grade, nominally 26@27c.

Oats—Receipts here to-day were 15 cars; a week ago, 5 cars; a year ago, 21 cars. Sales by sample on track: Mixed, No. 2, 29 1/4@29 3/4; No. 3 mixed, nominally 23c; No. 4 mixed, 22c; White, No. 2, 28 1/2@29 1/4; No. 3 white, 25c; No. 4 white, nominally 24c.

Hay—Receipts here to-day were 38 cars; a week ago, 57 cars; a year ago, 47 cars. Quotations are: Choice prairie, \$7.00; No. 1, \$6.00@6.50; Timothy, choice, \$6.75@7.00; Clover, \$5.50@6.00; Alfalfa, \$6.50; Straw, \$4.00.

Kansas City Produce. Kansas City, Oct. 31.—Eggs—Strictly fresh, 15 1/2c per doz. Butter—Extra fancy separator, 20 1/4c; firsts, 19c; dairy, fancy, 17c; country roll, 12@15c; store packed, 13c; packing stock, 10 1/2c.

Fowl—Hens, 60c; broilers, 7 1/2c; medium springs, 7c; roosters, old, 13c each; young roosters, 2c; ducks, 5c; young ducks, 6c; geese, 4c; goslings, 6 1/2c; turkeys, 7 1/4@7 1/2c; pigeons, 50c per doz.

Apples—Home grown, \$2.50@3.00 per bbl. Vegetables—Navy beans, \$1.25 per bu. Lima beans, 4 1/2c per lb. Onions, Red Globe, 50c per bu.; white globe, 85c per bu. Cabbage, home grown, 50c@61.00 per doz. Celery, 30@45c per doz. Pumpkins, \$1.00 per doz. Squash, 75c per doz. Turnips, home grown, 15@25c per bu. Potatoes—Home grown, 30c per bu. Sweet potatoes, home grown, 35c per bu.

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week.

WANTED—Forty tons more of pumpkins. Bring in at once. Bird Canning Co., foot of Monroe street, Topeka, Kas.

100 MERINO RAMS FOR SALE—Pure-bred American, Delaine and Rambouillet; also eight Shropshire rams from the Champion flock at the Omaha Exposition. Address E. D. King, Burlington, Kas.

MONEY—Do you wish to make money rapidly in a good, honest way?—man or woman. Write Box 267, Newton, Kas.

SAMPLE copies of 100 different newspapers and magazines sent to any address upon receipt of 10 cents to pay for mailing. A.M. SUBSCRIPTION AGENCY, Dept. F, 633 Arch St., Indianapolis, Ind.

FOR SALE OR TRADE—A registered Cleveland Bay coach stallion, 7 years old, weight 1,300 pounds. For further information address S. S. Morine, McPherson, Kas.

FOUR SHROPSHIRE BUCKS, registered and full-bloods, will be sold cheap. They are beauties. D. D. Perry, Peabody, Kas.

WANTED—One Kansas Farmer agent in every locality to represent the paper regularly. Good inducements offered. Address Kansas Farmer Co., Topeka, Kas.

FOR SALE—A limited number of the last edition of Prof. J. C. H. Swan's great book, "The Future By The Past." Price \$1.00; postage paid until the supply is exhausted. Address Kansas Farmer Co., Topeka, Kas.

RED POLLED BULLS FOR SALE—Eleven head from 5 to 7 months old, weigh from 500 to 700 pounds. D. F. Van Buskirk, Blue Mound, Kas.

FOR SALE—A choice lot of Single-comb White Leghorn Cockerels, \$1.00 each, if taken soon. Nothing offered but the best. Elwood Rush, Lockwood, Mo.

WANTED—Experienced salesmen for Lubricating Oils, Greases and Specialties. Do not close arrangements until you get our proposition. References required and given. The Erie Refining Co., Cleveland, O.

BARGAINS in Duroo-Jersey males. Five to eight months old. Two yearling males, cannot use longer. All recorded or eligible to record. Address M. H. Alberty, Cherokee, Kas.

FOR SALE—Five yearling boars. Also fine line of spring boars and gilts by Chief Editor 1798c, Tecumseh Short-Stop 14750 and High Hadley 20292. Choice blood. Call or write E. T. Warner, proprietor Franklin County Herd Poland-China Swine, Princeton, Kas.

FOR SALE—Pure-bred Polands and Berkshires from weanlings up, at very low prices. O. P. Udegaff, North Topeka, Kas.

POLAND-CHINA FIGS—Three dollars to five dollars each, eligible to record and choice breeding; no feed and must sell. M. C. Hemenway, Hope, Kas.

WANTED, AGENTS—We want an agent in every county in Kansas. Those acquainted with the farmers and threshers preferred. Liberal commission. For particulars, address The Victor Oil Co., Cleveland, Ohio.

BERKSHIRES—Choice bred sows by Imported Lord B Comely, and boars ready for service. Wm. B. Sutton & Son, Kas.

FOR SALE OR TRADE—A Belgian stallion and Arabian jack. Write me. H. Harbaugh, Agenda, Republic Co., Kas.

SHORT-HORN BULLS—Cruikshank-topped, for sale. Choice animals of special breeding. Address Peter Sim, Wakarusa, Shawnee Co., Kas.

BERDEEN-ANGUS BULLS—Three individuals of serviceable ages; registered. Wm. B. Sutton & Son, Russell, Kas.

FOR SALE—Thirteen fine Poland-China boars. Call on or address H. W. McAfee, Topeka, Kas. (Farm three miles west of Kansas avenue.)

WRITE TO ALEX RICHTER—Hollywood, Kas. How to sub-irrigate a garden, etc., and cost of same. Send him the size or dimensions of your garden, and he will give full information.

COTTSWOLD RAMS FOR SALE—W. Guy McCandless, Cottonwood Falls, Kas.

HEREFORD CATTLE—Breeding stock for sale. Archibald cattle a specialty. Visitors welcome. J. C. Curry, proprietor "Greenacres Farm," Quenemo, Osage Co., Kas.

WANTED TO EXCHANGE—The pure-bred Cruikshank bull, My Lord 116563, bred by Col. Harris; sire Imp. Spartan Hero 77932; dam Imp. Lady of the Meadow (Vol. 30, p. 615), for a pure-bred Cruikshank bull—can't use him any longer in my herd. H. W. McAfee, Topeka, Kas.

TO STOCKMEN—Feed Mills and Corn-Shellers. Used as samples and at fairs, special bargains. Write or see us. Sandwich Mfg. Co., 1205 Union avenue, Kansas City, Mo.

WANTED—One or two reliable salesmen to represent an old established firm manufacturing a profitable and salable line of staple products. References required. Address "Manufacturer," Commercial Bldg., Cleveland, Ohio.

WE MAKE A GOOD FARMER'S SPRING WAGON, two lay-down and let-down end-gate, for \$55. Warranted. We will ship on approval to responsible parties. Kinley & Lannan, 424-426 Jackson street, Topeka, Kas.

MACLEAN FARMERS' SUPPLY CO., Kansas City, Mo. (Between Union Depot and Stock Yards.) Sell machinery and other supplies to farmers direct, saving the consumer middlemen's profits. Send now for 1938 Spring Price List.

THOMAS J. CLARK, AUCTIONEER, MENOKEN, KANSAS. Many years experience. Extensive acquaintance. Correspondence solicited.

\$50 Agent's profit per week sure. Work for us and get \$1.50 outfit, side line; terms and premiums FREE. Sells at every house. Try us. CHIDESTER & SON, 27 Bond Street New York.

PASTURES for BEEF MAKING, RANCHES for BREEDING, FARMS for CATTLE FEEDING, Any size, from 100 to 15,000 acres. in solid bodies. All in Eastern Kansas.

Write H. R. HILTON, Topeka, Kas. Texas! Texas! The Missouri, Kansas & Texas Railway Company will sell low rate round-trip tickets on November 15, December 6 and 20, with final limit of return to twenty-one days from date of sale.

Latest Improved Triple Geared Cob and Grain Grinder. A Powerful Two Horse Machine. Grinding Rings go four times around to one turn of team; grinds at a rapid rate. Has been thoroughly tested and proves to have no equal in any respect. Sold direct to farmer.

T. L. PHILLIPS, MFR. AURORA, ILL. WRITE FOR TERMS, ETC.

RESERVINE THE MEAT SAVING MEAT NO SLIME-NO SKIPPERS NO SORE MEAT. Box, enough for 500 lbs. post-paid, on receipt of 50c. Freresvaline Co., 15 Cedar St., N. Y.

We PAY CASH each week if you sell Stark TREES. Outfit absolutely free. Stark Nursery, Danville, N.Y.

Administrators' Sale of Real Estate. Pursuant to the will of the late David R. Youngs, I offer at private sale all the real estate belonging to his estate, as follows:

1. The "Home Place," w. hf. of nw. qr. sec. 26, and e. hf. of ne. qr. sec. 27, t. 13, r. 15, 160 acres. Contains good house, barn and sheds, outhouses, corrals, wells and cisterns, wagon scales, three orchards, and all appurtenances constituting a first-class farm. About 130 acres plow land, 12 acres clover, 5 acres alfalfa, remainder pasture land, timber land and creek, all well and conveniently fenced. Price, \$8,000. Terms, one-third cash, one-third in two years and deferred payments 7 per cent. per annum, secured by mortgage.

2. Also the e. hf. of nw. qr. of said sec. 26, 80 acres. About 40 acres first-class plow land and about 40 acres hay land. Well and separately fenced. Price, \$3,200. Terms same as above.

3. Also about 101 acres of pasture land in one body, well fenced and well watered, being nw. qr. of ne. qr. frl. and sw. qr. of ne. qr. frl. of said sec. 27, and about 34 acres off the east side of the nw. qr. frl. of said sec. 27. Price \$20 per acre. Terms same as above.

4. Also about 101 acres of good prairie hay land, being w. hf. of nw. qr. frl. of said sec. 27, and about 24 acres off the west side of the e. hf. of nw. qr. frl. of said sec. 27. Price \$25 per acre. Terms same as above.

5. All of the above described land lying contiguous and constituting one large and complete farm and situated about seven miles southwest of Topeka near the Burlington road, will be sold together for \$15,000, on the same terms already stated.

6. Also 42 acres in sec. of sec. 9, t. 12, r. 15, near Six Mile creek. Mostly first-class plow land; well fenced. Small house and some other improvements. Price \$1,250. Terms same as above.

For further information write or call on the undersigned at his office, Bank of Topeka building, Topeka, Kas. CHAS. F. SPENCER, Administrator, with will annexed, of said estate.

Notice. All persons interested will take notice that my petition is on file in the office of the Shawnee county, Kansas, Probate court, asking for authority to sell the following described real estate situate in Shawnee county, Kansas, belonging to the estate of William Frey, deceased, for the purpose of paying the debts of said estate and the expense of administration, to wit: Lot 388 Taylor street, Topeka, Kansas. Lots 651 and 653 south Kansas avenue, Topeka, Kansas.

BLACK LEG PREVENTED BY PASTEUR "VACCINE." Write for particulars, prices and testimonials of thousands of American stockmen who have successfully "vaccinated" their stock during the past three years in Dakota, Nebraska, Wyoming, Colorado, Kansas, Texas, etc. PASTEUR VACCINE CO., 52 Fifth Avenue, CHICAGO.

THE KANSAS CITY STOCK YARDS ARE THE FINEST EQUIPPED, MOST MODERN IN CONSTRUCTION AND AFFORD THE BEST FACILITIES For the handling of Live Stock of any in the World. THE KANSAS CITY MARKET Owing to its Central Location, its Immense Railroad System and its Financial Resources, offers greater advantages than any other in the Trans-Mississippi Territory. It is the Largest Stocker and Feeder Market in the World, while its great packing house and export trade make it a reliable cash market for the sale of Cattle, Hogs, and Sheep, where shippers are sure to receive the highest returns for their consignments.

The Poultry Yard

Conducted by C. B. TUTTLE, Excelsior Farm, Topeka, Kas., to whom all inquiries should be addressed. We cordially invite our readers to consult us on any point pertaining to the poultry industry on which they may desire fuller information, especially as to the diseases and their symptoms which poultry is heir to, and thus assist in making this one of the most interesting and beneficial departments of the Kansas Farmer. All replies through this column are free. In writing be as explicit as possible, and if in regard to diseases, give symptoms in full, treatment, if any, to date, manner of caring for the flock, etc. Full name and postoffice address must be given in each instance to secure recognition.

KANSAS STATE POULTRY ASSOCIATION.
President, A. M. Story, Manhattan.
Secretary, J. W. F. Hughes, Topeka.

Poultry Show—At Topeka, January 9 to 14, 1899. C. H. Rhodes, Judge.

BROODERS VS. HENS.

It is just as easy, and far more profitable, to raise chicks by the aid of proper brooders than by the old method, with hens. Many a farmer's wife has successfully raised a brood of chicks that some hen has abandoned. In such cases the chicks are taken into the house, placed in a box or basket, fed regularly and raised with ease. It is the nature of chicks to live and not to die. Yet, raising chicks by artificial means depends as much, or more, upon proper brooding as upon successful hatching.

Artificial hatching is becoming simpler each year. It is no longer the dreaded task it was five years ago. With the improvements in incubators and their more general distribution throughout the country, it is more talked of and more successfully carried through in proportion to the increased number of operators.

Brooding, however, does not seem to make the same strides. The majority of beginners can hatch a certain number of chicks, perhaps not as many as do old and experienced operators, but enough to satisfy them; they fail, however, in brooding. Yet brooding chickens artificially is not so difficult if one will allow common sense to have something to say. Of course, we must look to nature in both hatching and brooding, for we are endeavoring to imitate the mother hen. The closer we follow her, the nearer we will come to success. The artificial method, therefore, cannot be divorced from the natural.

It will be noticed, in taking off a hen and her newly-hatched brood, that the chicks, the first day of their outdoor existence, keep very close under their mother's feathers, hardly appearing in view at all, and consequently with no idea of feeding. The wise poultry-grower understands this fully, and hence keeps the chicks in the bottom of the incubator for fully thirty-six hours after the last one is hatched. This corresponds to the brooding given by the hen.

THE PROPER HEAT.

In the first place, the brooder must be kept at the proper warmth. Chicks, removed from an incubator, where the heat has been kept from 103° to 105°, need to be placed in a very warm brooder. If the brooder is not warm, somewhat near the temperature from which they have been removed, they get a chill, which often results disastrously. The brooder, for the first day or two, should have a warmth of about 100°. This should be reduced gradually, till at the end of a week it should stand at 85° or 90°. The reduction should be allowed to continue until at four weeks of age it will have been brought down to 70°. If the weather is then warm, they can be removed from the brooder entirely; but if cold, they should be kept in the brooder for six weeks or more, depending entirely on the weather.

It is best and safest to use a good thermometer in the brooder; but without it, the right degree of heat can be pretty accurately determined by the behavior of the chicks. If too warm, they will stand with outstretched wings and open beaks; if too cold, they will huddle together and crowd each other; but if just right, they will flatten out in the most contented manner imaginable.

WHEN TO PUT IN BROODER.

Now, with the brooder running at or nearly the same temperature as the incubator, say 95° to 100°, the chicks may be introduced to their new home, and it is best to do so at night, for these reasons—they have the additional twelve hours brooding, and also become accustomed to the hover. This is very important, as it must be well understood that artificially brooded chicks have no mother to call them and teach them their early lessons. What they learn is from habit and instinct. If they learn at the start that the heat is in the hover, and return to it, when they make their first excursion into the colder world. Unless this first lesson is well learned,

they will remain out too long, become chilled and eventually droop and die.

CLEANLINESS.

This is another important matter. The brooder should be kept scrupulously clean. Every morning it should be swept out, and clean sand, or, as some prefer, bran, should be sprinkled over the bottom or floor. The advocates of bran claim that the chicks eat some of it, which promotes growth by forming bone. That is just the objection to it; they eat too much of it, and it is liable to swell in the crop; and if it gets a little wet, it is too sticky and the chicks get it stuck to their feathers, and present a sorry appearance. It is better to keep a small box of bran in the brooder where they can go to it at will. One of the best things to use, if it can be obtained, is chaff from the hay mow; it is fine and dry, and there is always more or less fine seed in it for them to hunt and scratch for. For ease in cleaning, however, fine, dry sand is best. But whatever is used, it should be renewed every day.

FEEDING.

Essential as are warmth and cleanliness, proper feeding is more essential, and its improper observance is the occasion of more deaths among the chicks than any one cause. Quantity and quality must be right. Brooder chicks are, as a rule, overfed; very rarely are they underfed. Food is left standing about to get sour and filthy, and the practice is—even if it did not result in loss—a wasteful one. The chicks should have what they will eat up clean in a few minutes, and nothing should be left over. When feeding time comes they should be hungry enough to be eager for their food. Keeping them a little hungry is very important, though the practice should not be carried to the other extreme and the chicks under-fed.

Major Roessle, in Country Gentleman, recommends as his choice for a food for the first day, rolled oats or oat flake; being white, they can readily see it; it is also dry and nourishing. This, however, is for the first day only. Good success has been had with millet seed, and also with johnny-cake. All food should be given as dry as possible. Sloppy food will cause "bowel trouble," and that usually means a dead chick. One of the very best foods, if not the best, is Excelsior meal, a combination of grains ground together, either baked into a cake, or moistened with hot water and fed in a crumbly state.

In connection with this, after the first day, pin-head oat meal, cracked wheat and corn should be fed dry, and scattered in the litter to make them hunt and scratch for it. With the exception, perhaps, of the morning feed, for variety, all food should be given dry, and if scattered in the litter it will teach them to scratch and exercise. Here, nature is our teacher again. Every one has noticed how constantly busy a brood of chicks with their mother is. We must try to copy nature as nearly as possible, and it will be found that a brooder chick which is busy from morning till night grows the fastest and thrives the best.

A fountain of pure fresh water of the same temperature as the brooder should be given them from the first; in this way they will not be chilled, and will become used to water at once, and will not drink too much. The fountain must be arranged so that they can only dip their beaks into it in drinking; if an open dish is given them, they will be sure to run into it, soiling the water, but worst of all, getting themselves wet, which they cannot stand. Dampness is fatal to young chicks.

Green food of some kind must be provided until they can get grass outside. If a patch of rye has been sown, some of this, cut up fine, will be eaten with a relish. A tender cabbage will be eagerly devoured, and may be given every day after the fifth day. Lettuce leaves also make an excellent green food. It is a good plan to sow some lettuce, wheat and oat or rye seed in boxes, specially for the chicks. In this way it can be had at all times of the year.

GRIT

is another very important item of food. A box of chick size grit should be kept constantly before them. "Mica Crystal Grit" is one of the best, and can be had at all supply stores. But it is not enough to simply place it before them. They may eat it, and they may not. And here is where the morning mash or johnny-cake comes in good play. Add to the mash a liberal allowance of grit and a handful of ground bone, so that in eating they will be compelled to eat the grit also.

The greatest trouble that all breeders have to contend with, both in natural and artificially-raised chicks, is bowel trouble. This is supposed to come from being chilled, and shows itself by an

A School Girl's Nerves.

This record is of especial value to parents. It's a message from a loving mother dedicated to the mothers of growing girls. A truthful narrative of the utmost interest and import.

It is important that the nerves are carefully guarded. Mothers who have young daughters of school age should watch their health more carefully than their studies.

The proper development of their bodies is of first importance.

After the confinement of the school room, plenty of out-door exercise should be taken. It is better that children never learn their a, b, c's, than that by over study they lose their health.

All this is self-evident. Everyone admits it—everyone knows it, but everyone does not know how to build the health up when once broken down, even the best physicians failing at times.

The following method of Mrs. Stephen Barnes, whose post office address is Burney, Ind., if rightly applied, may save your daughter.

When her daughter Lucy was at that critical girlhood age of twelve years she grew weak and nervous.

"Previously she had been a bright, healthy young girl," says Mrs. Barnes, "She was diligent and progressive in her studies.

"It became necessary, however, for her to leave school.

"She was overtaxed mentally and physically.

"Her nerves were at such a tension that the least noise irritated her.

"She had continual twitching in the arms and lower limbs and symptoms of St. Vitus' dance.

"Her blood was out of order she was thin and pale, almost lifeless. In three

months she lost twenty-three pounds. "We did everything possible for her and she had the best of medical treatment.

"Several skilled physicians attended her, but no benefit was apparent.

"A family friend visiting us, told how her daughter had been similarly affected, but cured by Dr. Williams' Pink Pills for Pale People.

"She urged us to try the pills, and we finally consented.

"We have always rejoiced that we did. "The pills helped Lucy at once, and after taking eight boxes she was entirely cured.

"She is now in perfect health, strong, weighs ten pounds more than ever before, and her cheeks are full of color.

"Two years of schooling were missed on account of ill health, but now she can gratify her ambition to study and become an educated woman."

The reason that Dr. Williams' Pink Pills for Pale People were helpful in the above case, is that they are composed of vegetable remedies which act directly on the impure blood, the foundation of disease.

As the blood rushes through all parts of the body, the conveyer of good or bad health, it is necessary that it should be pure, rich and red.

Dr. Williams' Pink Pills build up the blood by supplying its life giving elements which nourishes the various organs, stimulating them to activity in the performance of their functions and thus drives disease from the system.

The pills are in universal demand and sold by all druggists.

accumulation at the vent. It may come from being chilled, but very often it is caused by indigestion. Plenty of grit and exercise constitute almost an infallible cure. Powdered charcoal, the size the chicks can swallow, given in a box, or a little mixed in their feed two or three times a week, will help to sweeten their crops and correct any slight tendency to indigestion. It is not given as a food, and there is not much nourishment in it, but it acts as a corrective.

EXERCISE

must be promoted. As long as chicks scratch, they are safe. If they are fed so as to be a little hungry except immediately after their meals, they will race about, scratch in the sand and dig in the earth when permitted to run out. To this end, they should never be fed in the brooder when warm enough to be out. The best suggestion that can be made is to feed little and often; scatter the food so as to compel racing and scratching; never feed within the brooder if it can be avoided, and give every opportunity for exercise.

Next we come to

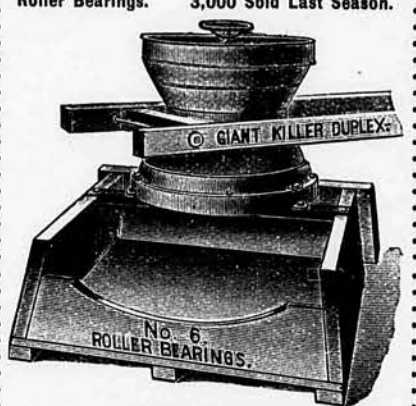
FRESH AIR.

Just as soon as they learn to run the length of the brooder and know enough to return to hover for heat, let them outdoors that they may enjoy that which gives them the greatest degree of strength and health. Let them out into the fresh air and sunshine, if only for five minutes. If it is too cold they will scamper back to the hover to be heated up again. Soon, however, they will repeat the excursion until they become accustomed to the road. But this outdoor exercise cannot well be allowed unless they are strong enough and wise enough to find their way back to the heat. This again corresponds with the fresh air they would get if with the mother hen. Beginners often make a mistake here in coddling their chicks too much, and thinking because they are small, and young, they are necessarily delicate and tender. As a matter of fact, they are quite hardy, and it is only the ignorance of the breeder that renders them delicate. The more fresh air they have and the more exercise they get, the more hungry they will become, and hence the more food they will consume, all of

THE IMPROVED VICTOR Incubator
Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class hatcher in the market. Circulars FREE. GEO. ERTEL CO., QUINCY, ILL.

HATCH CHICKENS BY STEAM—with the simple, perfect, self-regulating **EXCELSIOR INCUBATOR**. Thousands in successful operation. Lowest priced first-class hatcher made. Send for Circulars FREE. GEO. H. STAHL, 114 to 132 S. 6th St., Quincy, Ill.



Giant Killer... ..Duplex Grinder.
A BIG MILL ON A BIG BOX.
Roller Bearings. 3,000 Sold Last Season.



IMMENSE CAPACITY.
Equal to a 25-inch double-gear machine. No gearing to bind or break. All power applied direct to duplex burrs. Double auger force feed and steep cone. Corn and cob will not lodge or "hang up" in hopper. Warranted under like conditions to grind one-third more than an 18-inch double-gear mill, and furnished with a feed-box in proportion to capacity. Write
DAVIS GASOLINE ENGINE WORKS CO.,
Waterloo, Iowa.
We ship from Omaha, Neb.; Kansas City or St. Louis, Mo.; Bloomington, Ill.; Indianapolis, Ind.; Minneapolis, Minn.

When writing advertisers please mention Kansas Farmer.

THE HATCHING HEN
HAS LOST HER OCCUPATION
and in the production and brooding of chicks she has been supplanted by the better and every way
RELIABLE INCUBATORS and BROODERS
They Hatch and Brood when you are ready. They don't get lousy. They grow the strongest chicks and the most. It takes a 28-page book to tell about these machines and our Mammoth Reliable Poultry Farms. Plans for poultry houses, best way to handle, feed and market fowls, etc.
RELIABLE INCB. AND BROODER CO. Box B 62, Quincy, Ill.
Sent on receipt of 10 cents.

which tends to make them grow and develop.

Brooder chicks should begin to grow from the first day of their existence and grow continuously.

As the chicks grow the heat must be gradually reduced till the minimum of 70° is reached at about the end of the fourth week.

Advice to Beginners.

To bring any occupation up to a paying or profitable success it is necessary to observe proper methods.

Poultry-raising as a business is too generally looked upon as an occupation requiring little effort and demanding trivial attention.

Poor coops bring their trials and thin out the broods. At night the rats have a feast; in the glimmer of the early morn the neighbor's cat has a chicken for its picnic breakfast.

The swill bucket then, as the saying goes, "gets in its work." The man had only "set it down for a minute to drive the hogs out of the corn," and when he returned three of the most promising youngsters were drowned.

The leaky roof in the hen-house during a protracted rain started the roup, and several dozen chickens were lost.

The leaky roof in the hen-house during a protracted rain started the roup, and several dozen chickens were lost.

Only the day before the owner said: "I was thinking the first chance I get I will

fix that roof—then the rain set in—it's allus my luck."

Broods of young chicks stood around plaintively crying, showing every indication of being badly infested with lice.

A lot of "slightly damaged" food is purchased because it is "cheap." Soon there is a "mysterious disease" taking off his hens by the score.

The sooner any man who pays any attention to poultry-raising adopts strictly business methods the better.

Those who make poultry-keeping a very profitable success—and there are many who are accomplishing it—are those who have adopted business methods.

The business man has no account with "luck."

Poultry-raising cannot become profitable treated as a side issue in connection with our business.

Carelessness and neglect will wreck any enterprise. If you have an idea that poultry-raising is a good occupation for a lazy man, and have surplus money to venture in the business with, try it.

Coming Poultry Shows.

Kansas State Poultry Association.—J. W. F. Hughes, Secretary. At Topeka, January 9 to 14, 1898. C. H. Rhodes, judge.

Wichita, State Fair, Kansas.—H. O. Toler, Secretary. Wichita, Kas. September 19-24, 1898. C. H. Rhodes, judge.

Garden City Poultry and Pet Stock Association.—A. S. Parson, Secretary. Garden City, Kas. Show December 27-30, 1898. John C. Snyder, judge.

Ablene Poultry and Pet Stock Association.—Roy O. Shadinger, Secretary. Abilene, Kas. Second annual exhibit, at Abilene, January 25-28, 1898. Theo. Sternberg, judge.

Butler County Fancy Poultry and Pet Stock Association.—C. H. Pattison, Secretary and Treasurer. El Dorado, Kas. Second annual exhibit at El Dorado, Kas., December 20-23, 1898. C. H. Rhodes, judge.

Topeka Fanciers' Association.—L. V. Marks, Secretary. Topeka. Exhibit January 9-14, 1899, in connection with State show.

Horton Poultry Show.—J. Chase, Willis, Kas., Secretary. November 21-24, 1898. C. H. Rhodes, judge.

Northwest Missouri Poultry Association.—R. V. Glenn, Kingston, Mo., Secretary. Kingston, Mo., November 24-26, 1898. C. H. Rhodes, judge.

Ottawa County Poultry Association.—Mrs. D. Collister, Bennington, Kas., Secretary. Bennington, Kas., November 23-30, 1898. C. H. Rhodes, judge.

Manhattan Poultry Association.—S. J. Norton, Manhattan, Kas., Secretary., Manhattan, Kas., December 1-3, 1898. C. H. Rhodes, judge.

Mitchell County Poultry Association.—A. Whitney, Beloit, Kas., Secretary. Beloit, Kas., December 6-10, 1898. C. H. Rhodes, judge.

Smith County Poultry Association.—S. C. Stevens, Smith Center, Kas., Secretary. Smith Center, December 12-13, 1898. C. H. Rhodes, judge.

Arkansas Valley Poultry Association.—Mrs. H. P. Swerdfeger, Wichita, Kas., Secretary. Wichita, Kas., December 13-18, 1898. C. H. Rhodes, judge.

Garfield County Poultry Association.—A. F. Rusmiser, Enid, Okla., Secretary. Enid, Okla., December 24-25, 1898. C. H. Rhodes, judge.

Chase County Poultry Association.—C. M. Rose, Cottonwood Falls, Kas., Secretary. Cottonwood Falls, December 27, 1898, to January 1, 1899. C. H. Rhodes, judge.

Rooks County Poultry Association.—N. N. Neher, Stockton, Kas., Secretary. Stockton, Kas., January 2-5, 1899. C. H. Rhodes, judge.

Glasco Poultry Association.—M. E. Potts, Glasco, Kas., Secretary. Glasco, Kas., January 5-7, 1899. C. H. Rhodes, judge.

Central Oklahoma Poultry Association.—H. F. Stephenson, Kingfisher, Okla., Secretary. Kingfisher, Okla., January 16-21, 1899. C. H. Rhodes, judge.

POULTRY SUPPLIES.

The Peerless brand of Crushed Oyster Shells, Bone Mills, Tarred Roofing, poultry foods and remedies, Poultry Netting, etc., etc. Write for price list to T. Lee Adams, 417 Walnut street, Kansas City, Mo.

Advertisement for Bull-Strong, Horse-High, and Pig-Tight fencing materials, including product images and descriptive text.

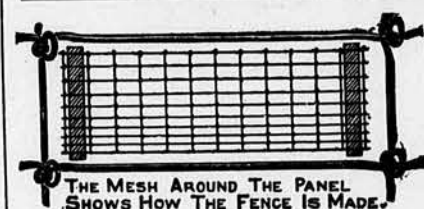
FRENCH BUHR STONE MILLS

For grinding crushed ear corn, shelled corn, oats, any kind of grain mixed or separate for stock feed; table corn meal, buckwheat, rye and graham flour for family use.



THE "DEWEY" AUTOMATIC STOCK WATERER.

Every objection to hog waterers overcome. Valve eight inches in water; can not freeze; has a brass float which can not rust, water log, or allow mud to collect under it.



THE MESH AROUND THE PANEL SHOWS HOW THE FENCE IS MADE.

PERFECT FARM FENCE Made of best doubly annealed galvanized steel wire. Top and bottom wires No. 9. All other wires No. 11.



Our Loop Knot (entirely new feature, patented) provides perfect expansion and contraction and keeps it tight at all temperatures.

Advertisement for LIGHTNING HAY PRESS STEEL, featuring an image of the press and text about special prices and contact information for Kansas City Hay Press Co.

Advertisement for Burlington Route BEST TRAINS, featuring a map of the route and text about vestibuled 'Eli' trains to Chicago and St. Louis.

Nothing but the Best



is good enough for the dairyman. It takes the very best implements to make the dairy business pay the maximum of profits.

P. M. SHARPLES, West Chester, Pa. BRANCHES: Elgin, Ill., Omaha, Neb., Dubuque, Iowa.

Advertisement for Currie Windmill Co., featuring an image of a windmill and text about their products and agents.

Advertisement for Dain Double Mill, featuring an image of the mill and text about its features and availability.

When writing advertisers please mention Kansas Farmer.

WAR HORSES.

It is remarkable how quickly horses adapt themselves to the military service, said an old soldier. Every artilleryman knows that they learn the bugle calls and the evolutions quicker than the men, as a rule. They soon acquire a uniform gait, which is about the same as what we call the route step or the usual marching step. If the horses did not acquire the same gait as the infantry there would be varying distances between the different arms of the service—that is, between the infantry and the cavalry, artillery, and the commanders and their escorts. In the drills in the artillery service the horses will preserve their alignment as well as the infantry rank.

I shall always remember one illustration of this trait which I noticed at a very exciting and critical moment of a battle during our Civil war. In order to save some of our infantry from being captured the commander of one of our batteries quickly mounted the cannoneers on the guns and put the whole battery at a dead gallop across a stretch of meadow about half a mile wide. I was quite accustomed to such sights, but when that dashing company was half way across the field I noticed the inspiring array, and for a moment was lost in rapt admiration of the magnificent picture. Every driver was plying whip and spur, the great guns were rocking and thundering over the ground, and every horse, reeking with foam and full of animation and excitement, was straining every muscle as he galloped forward, yet a straight line drawn along in front would have touched the noses of the lead horses in front of the six guns. That was an artillery charge, one of the most thrilling sights in the evolutions of war.

It is surprising how quickly horses learn the bugle calls. Let the first note of the feed or water call be sounded, and instantly there will be a stamping, kicking and neighing among the horses. Once during a terrible night storm in camp our horses were seized with such terror that those of nearly every battery broke loose and scattered about. The next morning there was a wild rush among the artillerymen to capture horses for use. All was excitement and the horses refused to be caught. An officer ordered the bugler to give the feed call. Horses from every direction came dashing into that battery, and the rush was so great that it was with difficulty the men could get out of the way of the eager horses.

When it comes to a battle a horse seems to know everything that is going on, and the reason for it all, and does his duty nobly. He enters into the spirit of a battle like a human being. He shows no fear of death, no sign of being overcome by panic in all the wild tumult of the battle's roar. A horse in one of our batteries in the Murfreesboro' fight was hit by a piece of shell, which split his skull so that one side was loosened. The driver turned him loose, but he walked up to the side of the gun and watched the firing, and when a shot was fired would follow it with his gaze as if to note its effect on the enemy. When he saw the team he had worked with being driven back for ammunition, he ran to his old place and galloped back with the rest. When an officer pushed him aside to have another horse put in, he gazed at the new one with a most sorrowful expression in his eyes. Then he seemed to realize that the glory of battle was no more for him, and he walked away and laid down and died. The officer declared that it was a broken heart, not the wound, that killed him.

During a fierce charge of the Confederate cavalry at Murfreesboro' an officer was killed and the cavalry driven back. The horse the officer had ridden was a magnificent animal, and he had not been taught to retreat. Riderless, he kept on his way, and as he dashed through our battery the sight of him was indescribably grand. His nostrils were extended wide, his eyes fairly blazed, and he clutched the bit determinedly with his teeth as he came on like the wind, with his saddle flaps flying until he looked as if he were himself flying instead of wildly running. Every one gave him room as he dashed toward us. An officer shouted that he would give \$100 to any one who would capture that superb animal, but all seemed too much bound up in admiration of the noble beast to make the effort, and he sped on and disappeared in the blue distance.

In connection with these anecdotes the following extract from Henry Ward Beecher's letter to Bonner on the death of the Auburn horse is worth reprinting: "Ought he not to have respect in death, especially as he has no chance hereafter? But are we so certain about that? Does not moral justice require that there should be some green pastureland hereafter for good horses? say—old family horses that have brought up

a whole family of their master's children and never ran away in their lives? Doctors' horses that stand unhitched, hours, day and night, never gnawing the post or fence, while the work of intended humanity goes on? Omnibus horses that are jerked and pulled, licked and kicked, ground up by inches on hard, sliding pavements, overloaded and abused? Horses that died for their country on the field of battle, or wore out their constitutions in carrying noble generals through field and flood, without once finching from the hardest duty? Or my horse, old Charley, the first horse that I ever owned; of racing stock, large, raw-boned, too fiery for anybody's driving but my own, and as docile to my voice as my child was?"—New York Sun.

The Klondike Nugget.

That is the name of the paper published in Dawson. It is about as large as the ordinary theatrical program, and sells for \$24.90 a year, or 50 cents a copy. The Nugget is right up to the times. It has a "roast" for toughs, and the finest kind of an account of a reception given by the best people in the city. It tells all about the sales of claims and who is making money. The concert halls and theaters come in for good and bad notices, just like big city papers. The feature of the last issue, dated August 13, tells all about typhoid fever in the region. There are many cases and a few

VALLEY GROVE SHORT-HORNS.

THE SCOTCH BRED BULLS
Lord Mayor 112727 and
Laird of Linwood 127149
HEAD OF THE HERD.



LORD MAYOR was by the Baron Victor bull Baron Lavender 2d, out of Imp. Lady of the Meadow and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. Lord Mayor heifers bred to Laird of Linwood for sale. Also breed Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

Address T. P. BABST, PROP., DOVER, SHAWNEE CO., KAS.

deaths. In all the Klondike Nugget is a very pretty typographical effort for a city like Dawson.

ROSE CREEK FARM READ THIS SPECIAL OFFER:
WILL OFFER EARLY SPRING PIGS WEIGHING 200 POUNDS DURING SEPTEMBER FOR \$17 EACH, DELIVERED AT ANY RAILROAD STATION IN KANSAS OR NEBRASKA.
H. WOODFORD, MGR., CHESTER, NEB.

POLAND-CHINAS ARE SECOND TO NONE.



SPRING VALLEY HEREFORDS.
Lincoln 47095 by Beau Real and Klondyke 42001, at the head of the herd. Young stock of fine quality and extra breeding for sale. Personal inspection invited.
ALBERT DILLON, Hope, Kas.

PURE-BRED HEREFORDS

FOR SALE. THIRTY-FIVE HEAD OF BULLS AND HEIFERS.
They are extra good ones. Prices as low as any responsible breeder. Farm adjoins the city, Address H. L. LEIBFRIED, Emporia, Kas.

R. S. COOK, WICHITA, KAS., Poland-China Swine

The Prize-winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1896. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 2844, Black Joe 2868, World Beater and King Hadley. For Sale, an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

200 PURE-BRED POLAND-CHINA SWINE FOR SALE 200

By GEO. CHANNON, Hope, Dickinson Co., Kas., Breeder of Poland-China Swine and Short-horn Cattle.
I must reduce my herds to the minimum on account of short feed and insufficient accommodations for winter, therefore will sell at prices that should be a big object to purchasers. My offering consists of tried brood sows, gilts and boars, all ages. Will sell singly or in lots to suit. The young stock is by my herd boars Prince Bismarck 1867, Seldom U. S. 18218, Duke of Weston and Corwin. Come now and get a bargain. Also, for sale thirty extra fine young Short-horn bulls, sired by Glendower 10838. None better in Kansas.

Sir Charles Corwin 14520 and Harry Faultless, Jr. HEADS OF HERD.



We have been in the show ring for the last three years, always winning the lion's share of the premiums. If you want prize-winners and pigs bred in the purple, we have them. All ages of Poland-China swine for sale; Write or come and see us. We have an office in the city—Rooms 1 and 2 Firebaugh Building.
ELM BEACH FARM, Wichita, Kas.,
C. M. IRWIN, S. C. DUNCAN, Supt.

The Sunrise Herd of Large English Berkshires.

The largest herd of registered Berkshires in Kansas, and probably the largest in America. 360 head to pick from. As well bred and as good individual as you can buy anywhere. The great 1025 pound boar, Longfellow W. 33611, at head of herd. Seventy-five boars large enough for service and one hundred sows bred, or large enough to breed, for sale. Also one hundred and twenty-five pig - from two to six months old; prices very reasonable.
I also have one hundred registered Hereford bulls ready for breeders and fifty females for sale cheap. Write for what you want.

THE SUNRISE STOCK FARM, C. A. STANNARD, Prop'r, Hope, Dickinson Co., Kas.

Nelson & Doyle

Room 220, Stock Yards Exchange Building, KANSAS CITY, MO.,
Have for sale at all times, singly or in car lots... Registered Herefords and Short-horns. Cross-bred Hereford, Short-horns and grades of other breeds. Bulls and females of all ages.

Stock on Sale at Stock Yards Sale Barn, Also at Farm Adjoining City.
N. B.—We have secured the services of John Gosling, well and favorably known as a practical and expert judge of beef cattle, who will in the future assist us in this branch of our business.

ELI ZIMMERMAN,

Proprietor of the Brown County Herd of Poland-China Swine and General Live Stock Auctioneer, is prepared to make sales anywhere. He is a first-class salesman and keeps posted on the prices of live stock and the best time when to sell and when not to sell. Registered Poland-China Swine of both sexes of the best strains of blood always on hand. Address him at

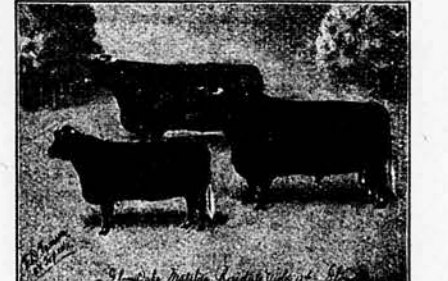
FAIRVIEW, KANSAS.



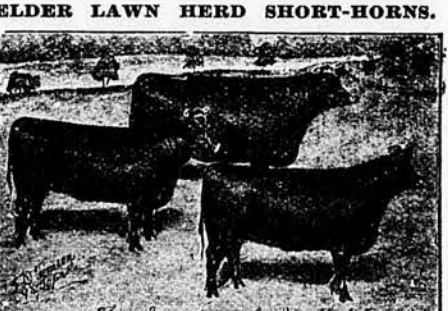
CEDAR HILL FARM.
Seventy head richly-bred Short-horns. The leading families represented. Golden Knight 108086 and Baron Ury 2d 124970 in service. Twelve young bulls of serviceable age for sale. Also 100 head high-grade bulls, 100 high-grade heifers and fifty head yearling heifers, 100 well-bred roadster horses. Address C. W. TAYLOR, Pearl, Dickinson Co., Kas.



SHORT-HORN CATTLE.
I have combined with my herd the Chambers Short horns and have the very best blood lines of the Bates and Cruickshank families. Herd headed by Baron Flower 114352 and Kirklevington Duke of Shannon Hill 126104. The Cruickshank Ambassador 110811 lately in service.
Best of shipping facilities on the A. T. & S. F. and two branches of Mo. Pac. Ry. Parties met by appointment. B. W. GOWDY, Garnett, Kas.



GLENDALE SHORT-HORNS, Ottawa, Kas.
Leading Scotch and Scotch-topped American families compose the herd, headed by the Cruickshank bulls, Glendon 118370, by Ambassador, dam Gallathus, and Scotland's Charm 127264, by Imp. Lavender Lad, dam by Imp. Baron Cruickshank. Young bulls for sale. C. F. WOLF & SON, Proprietors.



ELDER LAWN HERD SHORT-HORNS.
THE Harris bred bull, GALLANT KNIGHT 124466, a son of Gallahad, out of 8th Linwood Golden Drop, heads herd. Females by the Cruickshank bulls, Imp. Thistle Top 83876, Earl of Gloster 74523, etc. Size, color, constitution and feeding qualities the standard. A few good cows for sale now, bred to Gallant Knight.
Address
T. K. TOMSON & SONS, DOVER, KANSAS.
When writing advertisers please mention Kansas Farmer.

The Apiary.

Conducted by A. H. DUFF, Larned, Kas., to whom inquiries relating to this department should be addressed.

Arrangements for Wintering Bees.

For outdoor wintering of bees various conveniences, in the way of chaff boxes, may be used, and bees placed in good shape in them for wintering well. A good chaff hive properly made for each colony is the best, but farmers seldom make or buy those chaff hives, as they are somewhat expensive. The farmer's chaff hive is usually the dry goods boxes purchased at the stores of his locality, and from these the chaff hives are made. These boxes answer every purpose of a chaff hive, and but little extra labor is required to get them ready. These boxes need not necessarily be of the same size, or even shape, although it is preferable to have them so on account of looks.

The chaff hive should be considerably larger than the hive containing the bees, so that when the hive and bees are placed in the chaff hive there should be packing space of about two inches around the same for chaff. This packing space may be a little less than two inches, and it may be as much as six inches, or even more, as better protection is afforded by heavy packing. The size of the box used will, of course, govern the space for packing.

The hive of bees when set into these boxes should not sit directly on the bottom of the box, but a false bottom should be made, raising the hive up about four inches from the bottom, so that we can use packing under the hive as well. This is of much importance, as it not only protects at the coldest place about the hive, but it keeps the hive dry and will always be above high-water mark. This false bottom should be just the same in width as the hive which contains the bees, but in length it should be more, and just long enough to allow the hive of bees to sit in the center of chaff box, unless the chaff box is very large, and in this case it should have not over four inches from the entrance side, as it will compel the bees to travel too far to reach the hive. The entrance in the chaff hive must be cut on a level with this bottom, so as to correspond with the entrance to the hive on the inside. This entrance should be three-eighths of an inch wide and eight or ten inches long.

Boxes used for this purpose may be used singly, or a box that is very large may contain two or more hives. Organ boxes or piano boxes make nice tenement hives, and as many as four hives can occupy one of these boxes. The hives need not necessarily face one direction, but face the direction in which they will sit more conveniently in the box. But in every case the false bottom for the hives to sit on should be separate, and the entrances to correspond made as above described and boxed up close and tight, so as not to admit of dirt, chaff, etc. It would be preferable to use but two hives in the large boxes, and thus have the hives to face the same way. Taking into consideration the cheapness of these boxes, I would advise the use of them in this manner.

To arrange the hive of bees in these boxes, the surplus department, or upper stories, must be removed, and only the brood chamber proper used. The hive may be left in the same manner as when sitting out in the yard, with the lid on in the same way, and thus packed thoroughly and the packing forced in as tightly as possible. The box should be filled to the roof, or at least eight or ten inches of chaff should be placed on top. The most important part about these chaff hives is, to make a good cover for them and one that will not leak. This cover should be made of the lightest stuff obtainable, and the roof should be hinged at one side, so that it can conveniently be handled, and a good fastening used to keep storms from removing it. Such a structure as this may be readily kept under lock and thus kept perfectly secure.

This cheap manner of keeping bees in a desirable way is simply a step towards house apiaries, and the next inexpensive way to receive almost all the conveniences of the house apiary, is to make little houses to contain about ten colonies each. A house six feet wide, ten feet long, and six feet high will accommodate ten colonies of bees nicely, and leave plenty of working room for the apiarist. There should be a door at one end and a small window at the other. It is not necessary that such a building be made of matched lumber, as it need not be absolutely tight, but ordinary cheap lumber may be used, and such a one may be built at a cost not exceeding \$1 for each colony, or \$10 for the building. This is about as cheap as any kind of chaff hives can be gotten up, and is certainly much

more desirable than any other. All these boxes or hives should be well and permanently made, and painted, and the bees should remain in them all year round, as a good winter hive is also a good summer hive.

It will not pay to keep bees unprotected in winter, and the proper time to get them in good quarters is early in autumn, and it should not by any means be left until late autumn or the beginning of winter. They should be well located in their new quarters long before winter is on, so that they are well acquainted with the same, and have their locations well marked so that no loss may occur when they come out to take their occasional flight in winter.

Apiary Department Kansas Farmer:—When would you advise me to take the supers off the hives in autumn? My bees have been bothered considerably with cockroaches and moth worms. What can I do with them?

HENRY FAUKHAUSER.

Madison, Kas.

The surplus boxes should come off now, unless your bees are storing surplus honey, and if so, allow them to remain until they stop storing honey. Cockroaches and moth worms are no enemy to Italian bees, when kept in good hives, and if you do not have either, I would advise you to get both. It will not pay to spend time with the old black bees and poor hives. Get the latest hives and transfer your bees to them, and also get pure Italian queens and introduce them to your colonies.

Cancer and Tumors Cured by Anointing With Oils.

The friends of Rev. S. W. Jones will be glad to know of his wife's recovery from what seemed certain death, as the following statement indicates:

Pittsburg, Texas, August 11, 1898.

Dr. Bye, Kansas City, Mo.:—This certifies that my wife, Mrs. S. W. Jones, has been afflicted for several years with something, we did not know what. She gradually grew worse and took medicine all the time. In the fall of '97 she became almost helpless. Her physician informed her that she had an ovarian tumor and that an operation would have to be performed to save her life. She was badly swollen. He said the tumor was about the size of a child's head. She was 61 years of age and we did not think she could stand an operation, therefore we sent for her children and relatives to consult together for the best. Rev. G. R. Bryce, of Waco, being a brother of my wife, was sent for, and all concluded it best to not have an operation and just wait on her and let her die in peace.

January, 1898, I found an advertisement in the Christian Advocate, printed at Dallas, Texas, saying that Dr. Bye, of Kansas City, Mo., could cure tumor by absorption. With but little hope of doing my wife any good, I wrote to Dr. Bye. He wrote me what he could do. I sent at once and procured one month's treatment. The first month's treatment did not reduce her size, but stopped all pain. The second month's treatment reduced her to almost natural size. The third month's treatment reduced her to natural size, and to-day she is in better health than she has been for four years. The tumor is now almost entirely gone and she suffers no inconvenience from it whatever and is able to help do the housework, go buggy riding, and is enjoying life better than for years past, therefore we cheerfully recommend Dr. Bye to all ladies suffering with the same disease, and to say to the public that we believe that if it had not been for Dr. Bye, wife to-day would have been in her long resting-place. We will cheerfully answer all questions asked us by those afflicted, by letter or otherwise.

S. W. JONES.

P. S.—I am a member of the East Texas conference and am serving the good people on Musgrave circuit this year. We live three miles and a half southwest of Pittsburg, Camp county, Texas.

S. W. JONES.

Persons afflicted with tumor or cancer may address Dr. Bye, Lock Box 464, Kansas City, Mo., and he will send them a book and papers free, giving prices of treatment, and hundreds of letters from the afflicted in every part of the United States and Canada who have been cured; also half-tone cuts from photographs showing facts that cannot be questioned.

The waters of the rivers of New England work hard, turning wheel after wheel in frequent succession throughout their entire course; but at last they reach the sea and the end of their labors, and thereafter they are eternally rocked in the vast and majestic "cradle of the deep!" How like a useful human life are those rivers!—Exchange.



ON THE BIAS.
That's the secret of the S/A Bias Girth Horse Blankets. The girth is on the bias—that means crossed. It works automatically. The blanket can't slip. If you pull one side, the other side keeps the blanket from sliding, and yet it doesn't bind the horse. He couldn't displace it if he rolled in it.

S/A Bias Girth
Horse Blankets are made in all styles—to fit any horse—to suit any purse. Ask your dealer for S/A Bias Girth Blankets, and look for the trade-mark. A book on the subject sent free.

WM. AYRES & SONS, Philadelphia.



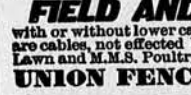
Trade Mark

LUMP JAW NOW CURABLE.
Surely, quickly and for good. Fleming Bros., chemists, Union Stock Yards, Chicago, have a remedy that quickly cures the most obstinate cases. Supplied by mail under a positive guarantee. Price, \$2.00. Valuable information and full particulars FREE.



FIELD AND HOG FENCE.
With or without lower cable barbed. All horizontal lines are cables, not effected by heat and cold. Steel Flocke Lawn and M.M.S. Poultry Fence, Steel Gates, Posts, etc.

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THIS MILL
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COOK Your FEED and Save Half the Cost—with the PROFIT FARM BOILER
With Dumping Caldron. Empties its kettle in one minute. The simplest and best arrangement for cooking food for stock. Also make Dairy and Laundry Stoves, Water and Steam Jacket Kettles, Hog Scalders, Caldrons, etc. Send for circulars.

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Doubles FOOD VALUE.
Grain should be ground before being fed.

The Farmer's Friend SWEEP FEED MILL
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WE SELL DIRECT.
We manufacture the **CELERY CITY FEED COOKER** and sell direct to the farmer and stock raiser at the same price the dealer has to pay. We Save You Dealers' Profit. The Feed Cooker will double the nutritive value of grain and fodder. Send for circular.

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Self-acting, Best Governed, Acknowledged to be the most powerful and durable made. We have everything the farmer needs in this line.

Towers, Tanks and Pumps, Outlets, Grinders, Shellers, etc.

POWER AND PUMPING MILLS
Catalogue, full of valuable points, free.

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Three steamship lines now running to British, Continental and Mexican ports.

Over one-half the canal completed to a depth of sixteen feet.

One hundred thousand dollars' worth of property sold in March.


Go to Port Arthur and see what the backing of a 1,227 mile trunk line means.

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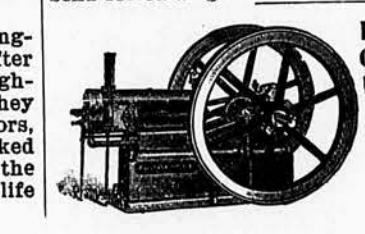
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WINDMILLS.
Eclipse Wood Wheel and Fairbanks' Galvanized Steel FOR PUMPING OR GRINDING.
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ALFALFA SEED FOR FALL SOWING

McBETH & KINNISON, GARDEN CITY, KANSAS,
Wholesale and Retail Seedsmen.

Send for Our Free Manual on the King of Forage Plants.

GREAT TWO DAYS' SALE

135 SHORT-HORN CATTLE.

On Tuesday, November 22, 1898,
At Kansas City Stock Yards Sale Barn
CRUICKSHANK, SCOTCH and SCOTCH-TOPPED.
38 Bulls, 19 Cows and Heifers

All bulls but four range yearlings up to two years old. Cows with calves at foot, others bred to the undefeated show bull, Admiral 130-662. Sale opens at 1 o'clock p. m. Write for catalogue. Terms cash.

GEORGE BOTHWELL,
Nettleton, Mo.

COL. F. M. WOODS, Auctioneer.

Third Annual Sale Idlewild Herd.
I will offer on WEDNESDAY, November 23, 1898,
AT LIVERY BARN IN THE CITY OF
Bunceton, Cooper Co., Mo.,
75 Head of Registered Short-horns,
50 BULLS and 25 FEMALES.

About two-thirds of the bulls are yearlings past, and big curly fellows ready for heavy use. There are quite a number of pure Cruickshank breeding, both bulls and heifers. Send for catalogue. As Mr. Bothwell sells the preceding day, parties can arrange to attend both sales.

W. P. HARNED, Bunceton, Mo.

COL. F. M. WOODS, Auctioneer.

Sale of Pure-Bred Poland-China Swine

AT MARION, KANSAS, NOVEMBER 10, 1898.

Consisting of brood sows, one-year-old gilts, March, April and May pigs, and one tried herd boar, Corwin Sensation, will be sold. Tanner (19212), a grandson of the famous Hildstretcher, goes in this sale. Get a Corwin Sensation pig. Write for particulars. Send for catalogue.

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GEORGE W. BARNES, Auctioneer, Valencia, Kas. Lowest terms. Extensive experience both as breeder and salesman. All correspondence given prompt attention.

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ITALIAN BEES.

Bred from queens imported from Italy. Full colonies; two, three and four frame nucleus shipped anywhere and safe arrival guaranteed. We ship bees any time from March to November. Queens, hives and supplies generally.

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SAVE YOUR ORCHARD BY USING Jessup Tree Protectors.

Absolute protection from rabbits; keeps off borers and bark-lice and prevents sun-scalds; is indestructible and cheap. Write for circulars and prices.

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Agents wanted. Mound City, Kas.

Berkshires at Your Own Price.

(I'M GOING TO MOVE.)

Forty head, in quality, size and health, second to none. Young boars and gilts 200 to 250 lbs each. No better breeding. Three months pigs, 80 to 100 pounds each, \$10 per pair. Write me quick, I can suit you.

GEO. PURDY, Box 131, Ft. Scott, Kas.

W. E. SPEARS

RICHMOND, KAS.

For Sale—22 Head of Herefords.

Five registered cows—Lord Wilton and Anxiety—bred to Dial 3d No. 71453; fifteen grade cows, all bred; one yearling bull, Lord Wilton and Anxiety; one five-year-old bull, sired by Banker No. 1324, by Illinois No. 920 (5896).

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HARNESS Write for illustrated catalogue. Largest Harness and Carriage house in the Northwest. **NORTHWESTERN HARNESS & CARRIAGE CO.,** 172 6th St., St. Paul, Minn.

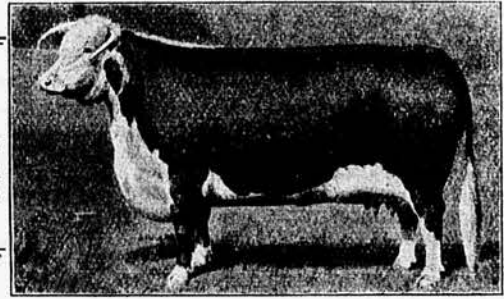
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SUNNY SLOPE,

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WILD TOM 51592,
the great son of the great sire, Beau Real 11055, heads the herd.

Other Bulls in service are:
CLIMAX, LOMOND, Imp. KEEPON, and others.

Registered Hereford Cattle.

At the spring sales of 1898 we sold the highest-priced male and highest-priced female, and also had the highest averages for 5, 10, 20, 40, 60, 80 and 100 head. These averages were higher than that of any Hereford sale of recent years. Salisbury, sold to Mr. Murray Boacock, brought the highest price any Hereford bull ever sold for at public sale in America. Last year the herd won more premiums than any other Hereford herd. We point to the above facts as the best evidence of the superior character of the animals comprising the herd. The attention of discriminating buyers is called to the fact that we have for sale a splendid lot of males and females, bred in the purple, which will be sold as low as equal merit and equal breeding can be purchased elsewhere. Sixty head of the females are bred to imported bulls. Visitors always welcome.

THOS. EVANS, Mgr.

C. S. CROSS, Emporia, Kas.

..PUBLIC SALE OF..

Grandview Herefords,

AT THE STOCK YARDS PAVILION, KANSAS CITY, MO.

December 15 and 16, '98.

Seventy bulls and thirty-five cows and heifers will be sold. These animals are of particularly desirable ages, are of the leading Hereford families, and are selected with care with the view of making an offering that will maintain the reputation of the Grandview herd. The bulls are large, smooth, grass-grown, fleshy animals, and three-fourths of them will be over seventeen months old at the time of sale. The heifers will either all be bred or old enough to breed at that time. Catalogues now ready.

COL. J. W. JUDY and COL. F. M. WOODS, Auctioneers. **C. G. COMSTOCK, Albany, Missouri.**

PUBLIC SALE OF REGISTERED HEREFORD CATTLE

Seventy-five Head,

THIRTY-THREE BULLS and FORTY-TWO COWS and HEIFERS,

AT STOCK YARDS SALE BARN,

KANSAS CITY, MO., WEDNESDAY, NOVEMBER 30, 1898.

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PUBLIC SALE!

I will sell at Public Auction, to the highest and best bidder, at my farm, five miles southeast of Topeka, on

SATURDAY, NOV. 12, 1898.

SEVENTY HEAD OF THOROUGHbred HOGS—Thirty-five sows, some bred and some not; thirty-five head of males from five to twenty-four months old. Both Berkshire and Poland breeds. These hogs are all first-class in every respect.

TERMS—Sums of \$25 and under cash; over \$25 a credit of three months' time, on approved note with 8 per cent. interest from date; 5 per cent. off for cash on time sales.

Also will sell at same time: One English Shire stallion, 13 years; one Hoosier wheat drill; one riding cultivator; one four-horse down-power and grist mill, on twelve months' time without interest. Sale at 10 a. m. sharp. Good lunch at noon.

COL. S. A. SAWYER, Auctioneer.

V. B. HOWEY, Prop'r.

GREAT FIVE DAYS' SALE OF REGISTERED CATTLE.

Hereford Cattle.

47 BULLS AND 53 COWS AND HEIFERS.

AT STOCK YARDS SALE BARN.

Kansas City, Mo., November 15 and 16, 1898.

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Short-horn Cattle.

30 BULLS AND 120 COWS AND HEIFERS.

AT STOCK YARDS SALE BARN.

At Kansas City, Mo., Nov. 17, 18 AND 19, 1898.

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