ESTABLISHED IN 1863.
VOL. XXXVII. NO. 51.

TOPEKA, KANSAS, THURSDAY, DECEMBER 21, 1899.

SIXTEEN TO TWENTY PAGES—$1.00 A YEAR.

BREEDERS' DIRECTORY.

Cards will be inserted in the Breeders' Directory as follows: Four-line card one year, $16.00; each additional line $4.00. A copy of the paper will be sent to the advertiser during the continuance of the card.

SWINE.

TAMWORTH HOGS. (Bacon type.) C. F. ARMSTRONG, Clyde, Kans. . .

D. TROTT, ABILENE, KAS., famous Duroc-Jerseys and Poland-Chinas.

V. B. HOWEY, TOPEKA, KAS.

Breeder and shipper of thoroughbred **Poland-China and Large English Berkshire** swine and **Silver-Laced Wyandotte** chickens.

KANSAS HERD OF POLAND-CHINAS—Will sell U. S. Tecumseh 20368, he by old Black U. S. 4209, and a few of his gilts bred to Black Chieftain. Inspection preferred to description. Also two nice fall boars. Address F. P. MAGUIRE, Haven, Kans.

IF YOU WANT DUROCS GET THE BEST.
E. L. YOUNG, breeder of
Registered DUROC-JERSEY SWINE.
Bayneville, Sedgwick County, Kans.

CRESCENT HERD POLAND-CHINAS.

Ten bred sows for sale. Ninety pigs for fall trade. Come or write.
SAM W HILL, Hutchinson, Kansas.

D. L. BUTTON, North Topeka, Kas., breeder of **Improved Chester Whites.** Stock for sale. Farm 2 miles northwest of Reform School

BASSETT BROS., Burlingame, Kans.,
POLAND-CHINAS.

A few good boars for sale, sired by Hadley Model 2d No. 19827 S. Dam, Extra Black U. S. 52605. Correspondence solicited.

RIVERDALE HERD of Chester White swine and Light Brahma poultry. J. T. LAWTON, BURRTON, KAS., proprietor. All stock guaranteed. I can also ship from Topeka, my former place

SANTA FE SPRING HERD.

BLACK QUEEN'S CHIEF and HADLEY U. S. at its head. Carefully selected sows by Chief Tecumseh 2d, Hadley Jr., Combination F. F. and Mambrino Chief. Only choicest individuals allowed to leave our pens. Young stock for sale. See our herd. Five minutes' walk from depot.
F. B. LINN & SON, Lenexa, Kans.

Queen City Hog and Poultry Farm

Improved Chester Whites and Poland-Chinas

Light Brahmas. Buff Cochins, Pekin ducks and White guineas. Stock for sale. Poland-Chinas at closing-out prices. Visitors welcome. **A. E. Staley,** Farm one-half mile north of town. | Ottawa, Kans.

Wamego Herd Imp. Chester Whites and Poland-Chinas.

Special Prices on Chesters—to close out herd by end of the year. Correspondence or inspection invited. Mention Kansas Farmer.

C. J. HUGGINS, Proprietor, Wamego, Kans.

VERDIGRIS VALLEY HERD—Large-Boned Poland-Chinas.

We have 20 choice yearling and 10 aged sows for sale; 12 May and July boars, some very fine. Also, 100 fall pigs, all good; some the finest we ever produced. All for sale without reserve and at bargains, for the next 30 days. We can furnish herds not akin of any of the fashionable and prize-winning strains.
WAIT & EAST, Altoona, Wilson Co., Kans.

R. S. COOK, Wichita, Kans.,
.....BREEDER OF.....
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 firsts and seven seconds at Kansas State Fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28603, 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.

SWINE.

IMPROVED YORKSHIRES. KAW VALLEY SWINE CO, Kansas City, Kansas. Sims Station.

W. H. McCALL, COLLEGE VIEW, NEB.

One extra fine 4-year old bull (Carlotta Chief). Also young bulls, cows, and heifers. Special prices to reduce herd.

SPRING GROVE POLAND-CHINAS.

Growthy, strong-boned pigs. **Tecumseh, U. S., Model,** and Darkness families. Herd boars, **Moorish King 25513 O., Tecumseh I Am 21595,** and **Darkness U. S.,** by Darkness Model, a grandson of Klever's Model. Write or call.
A. O. NORTHRUP, Boyle, Jefferson Co., Kans.

PURE-BRED POLAND-CHINAS.

Thirty-five Serviceable Boars and 45 Gilts for ready sale at reasonable prices; quality, style, and breeding considered. Most of these hogs are by the splendid herd boar Black Chief 42357, he by Black Joe out of Betty Risk, and are out of such sows as B nner's Pride (103706), Worldbeaten Beauty (9484), Black Bessie (104224), and Darkness Model (104958). Address **HIRAM SMITH, Colwich, Kans.**

The Blood of Chief Tecumseh 2d
Is found perhaps more strongly in
MEADOW BROOK POLAND-CHINAS

Than in any other herd of eastern Kansas. A thoroughly good lot of young boars for sale; also gilts and bred sows. J. R. KILLOUGH & SONS.
Farm one mile north of Ottawa, Kans.

THE WILKES QUALITY HERD OF
POLAND-CHINA SWINE.
Thos. Symns, Prop., Hutchinson, Kas.

Herd boars, Darkness Quality and Reno Wilkes. For ready sale 45 very choice pigs out of Bessie Wilkes, Beauty Sedom, Chief I Know, Standard Wilkes, Ideal Black U. S. and Chief Tecumseh 2d sows. Farm one mile west of Hutchinson, near Star Salt works.

T. A. HUBBARD,
Rome, Kansas,
Breeder of
POLAND-CHINAS and LARGE ENGLISH BERKSHIRES. Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

Central Kansas Herd of Poland-Chinas

Of Chief Tecumseh 2d, Guy Wilkes 2d, Lawrence Perfection, Black U. S., and King Butler blood. **100 head.** A choice lot of spring boars; good bone, large and growthy. A few fall of '98 boars. A fine lot of yearling sows and spring gilts, bred or unbred. Can furnish males and females not related. Address
C. S. SNODGRASS, Galt, Rice Co., Kans.

RIDGEVIEW FARM HERD OF
BERKSHIRES

Buy your Berkshires from our prize-winning herd and get your money's worth. First-class stock of either sex at reasonable prices. Breeding and prices furnished upon application.
MANWARING BROS., Lawrence, Kans.

POLAND-CHINA SWINE

CHIEF I KNOW AND HADLEY JR. STRAINS.
$10, $12.50 and $15.
J. H. TAYLOR, Rhinehart, Kans.

SUNNYSIDE HERD POLAND-CHINAS

Large boned, broad backed, low down, good length yet early maturing type. The kinds that make the feeder money. We have for sale some extra good gilts and a few good boars. Write me your wants or visit the herd.
M. L. SOMERS, Altoona, Kans.

BARGAINS IN.... POLAND-CHINAS

Nine extra good gilts, weighing 175 to 200 pounds, sired by Hadley I Know 21402, dams Look Me Over, U. S. Chief and Wilkes blood. Also two good yearling sows, registered; weigh about 350 pounds, in breeding condition; have raised two litters each this year. I will make special price to immediate buyers, and guarantee them as represented. A few good boars yet.
W. B. VAN HORN, Lawrence Kans.

SWINE.

Higgins' Hope Herd

My herd is now headed by the Young Boar,
PERFECT WE KNOW.

This Boar was shown at the Illinois State Fair and won three first prizes, and I am, therefore, satisfied to offer sows and gilts bred to him. Also, have young pigs of both sexes constantly on hand and for sale.

J. W. HIGGINS, JR.,
Hope, Kans.

O. E. MORSE & SON, of Mound City, Kans.
—BREED—
Missouri's Black Chief, Chief Tecumseh 2d, and Look Me Over strains.

POLAND CHINAS. Can sell a few M. B. C. gilts and pairs not akin. Farm adjoins the townsite.

FAIRVIEW POLAND-CHINAS.

W.'s Chief Again by Chief Again by Chief Tecumseh 2d), assisted by a grandson of Klever's Model and Hidestretcher at head of herd. Fancy W.'s Chief Again gilts bred to our young boar, for sale. Farm two miles southwest of Paola, Kans.
P. L. WARE & SON.

CATTLE.

ENGLISH RED POLLED CATTLE—PURE-BRED Young stock for sale. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo. Mention this paper when writing.

MEADOW BROOK SHORTHORNS. FOR SALE: My herd bull, 20th Earl of Valley Grove 122381. Scotch bred and 4 years old. Only reason for selling, is, that I must now change herd bulls. Address
F. C. KINGSLEY, Dover, Shawnee Co., Kans.

Registered Hereford Cattle
Young Bulls For Sale.
W. L. BASS, Eldorado, Kansas.

H. R. LITTLE, Hope, Dickinson county, Kans., breeder of Shorthorn cattle. Herd numbers 100 head.
FOR SALE:
TWENTY-FIVE SHORTHORN BULLS OF SERVICEABLE AGE.

BONITA ◆ SHORTHORNS.

BATES, BOOTH, and BEST AMERICAN strains. Baron Noxubi 127151, by Godwin, the sire at Linwood, heads our herd. Address WILLIAMS BROS, Bonita, Kans.

BREED THE HORNS OFF
By using a Red Polled bull.
CHAS. FOSTER & SON, ELDORADO, KANS.
Breeders of Red Polled cattle. Herd headed by **Powerful 4582.** Pure-bred and grades for sale. Also, prize-winning Light Brahmas.

RED POLLED CATTLE
Largest Herd in America.

S. A. CONVERSE, Proprietor, Importer and Breeder,
Cresco, Howard County, Iowa.

CLOVER CLIFF FARM.

Registered **Galloway Cattle.** Also German Coach, Saddle and Trotting-bred horses. World's Fair prize Oldenburg Coach stallion, Habbo, and the saddle stallion, Rosewood, a 16-hand, 1,100-pound son of Montrose, in service. Visitors always welcome. Address
BLACKSHERE BROS., Elmdale, Chase Co., Kas.

GEO. GROENMILLER & SON,
Centropolis, Franklin Co., Kans.

Breeders of **RED POLLED CATTLE** and **COTSWOLD SHEEP.** Buff and Partridge Cochins, Light Brahmas, Brown S. C. Leghorns, Golden Wyandottes. Full bloods and seven-eighths Red Polled bulls for sale. Herd numbers sixty head. The first prize herd of Kansas.

ROCKY • HILL • SHORTHORNS

Waterloo Duke of Hazelhurst 11th 130723 and the Linwood Golden Drop bull, Golden Victor Jr. 137875, head of herd. We offer for sale our Waterloo herd bull, 4 years old, by the same sire and tracing to the same imp. dam as Waterloo Duke of Hazelhurst 7th, recently sold by Steddom Bros. for $1,000. Also offer a nice lot of young bulls, and a few heifers.
J. F. TRUE & SON, Newman, Kans.
Newman is on Union Pacific R. R., twelve miles east of Topeka.

CATTLE.

SILVER CREEK HERD
SHORT-HORN CATTLE.

Scotch and Scotch-topped, with the richly-bred Cruickshank bulls, Champion's Best 114671 and Gwendoline's Prince 130913, in service. Also high-class **DUROC-JERSEY SWINE.** Can ship on Sant Fe, 'Frisco and Missouri Pacific railroads.
J. F. STODDER, Burden, Cowley Co., Kans

REGISTERED
Galloways
FOR SALE!

IN LOTS TO SUIT. 12 2-year-old bulls, 20 yearling bulls, balance cows and heifers. Inspection desired. Call on or address,
J. M. LOWE, 311 Mass. Bldg. Kansas City, Mo. J. R. LOWE, Blue Springs, Mo.

40 Shorthorn Bulls For Sale.

I wish to sell as soon as possible 40 young bulls, 6 to 15 months old. Will also spare a few females to customers. Prices will be right. Address,
GEORGE CHANNON,
Proprietor Lockridge Stock Farm,
Hope, Dickinson Co., Kans.

SPRING VALLEY
HEREFORDS

KLONDIKE 72001 at head of herd. Correspondence or inspection invited. Young stock for sale.
ALBERT DILLON,
HOPE, KANS.

Three miles north of Quenemo on Santa Fe. **"GREENACRES"** One and a half miles N. of Lomax on Missouri Pacific.

HEREFORD CATTLE.

Archibald 1st 39258 at head of herd. Young **Archibald** breeding stock always for sale. Herd always "at home."
J. C. CURRY, Quenemo, Osage Co., Kans.

CURTICE HEREFORDS

Herd numbers 100 head of the best strains and combination of strains of breeding that has made Herefords famous. Herd foundation stock a specialty. For Sale:—Five cows and 10 heifers. Address
J. M. CURTICE,
603 American Bank Building, Kansas City, Mo.

BELVOIR HERD
HEREFORDS
OF THE VERY BEST BREEDING.

Herd bulls: Princeps 66683, Ben Butler 54079, and McKinley 68926. Ten yearling bulls and a few females for sale.
STEELE BROS., Belvoir, Douglas Co., Kans.

THE VINEWOOD HERD.

SHORTHORNS THAT ARE FEEDERS.

A herd of growthy, easy fattening Scotch and Scotch-topped cows headed by the Cruickshank bulls, **Lavender King 4th 108682,** from J. H. Potts & Sons' young herd of World's Fair prize-winners, and **Gloster Vol. 44.** Visit our herd.
D. K. KELLERMAN & SON, Mound City, Linn Co., Kans.
Vinewood Farm one and a half miles north of Missouri Pacific depot.

SUNFLOWER HERD
Scotch and Scotch-topped
SHORTHORN CATTLE.
POLAND-CHINA SWINE.

Herd bulls, Sir Knight 124403 and Violet Victor 137574. Herd boars, Black U. S. 2d 22582 S., and L's Sensation 2d 19805. Representative stock for sale.
Address ANDREW PRINGLE,
Wabaunsee Co. Harveyville, Kansas.

Agricultural Matters.

ALFALFA IN EASTERN KANSAS.

H. M. COTTRELL.

Alfalfa is essential to the cheapest production in Kansas of beef, pork, milk, and the rapid growth of young animals. Alfalfa is our best soil enricher, bringing up plant food to the surface soil from greater depths than any other crop plant grown in Kansas.

Hogs fattened on grain and alfalfa hay showed a gain of 868 pounds of pork per ton of hay and hogs on alfalfa pasture showed a gain of 776 pounds per acre of pasture. Alfalfa hay is our cheapest milk-producing food, and when fed with other farm feeds induces a full milk yield without the use of purchased feed stuffs. Feeders report nearly double the usual grains in fattening steers where alfalfa is used for roughness.

It seems imperative, then, that every Kansas farmer should grow alfalfa if possible, yet we find but little of it grown in eastern Kansas. Most trials of alfalfa in this section of the State have been failures, but we have found alfalfa grown successfully under almost every condition of soil to be found in the eastern part of the State, and the writer believes that 90 per cent of eastern Kansas is a natural alfalfa country.

Alfalfa will not grow on wet land nor where rock comes near the surface. It is easiest grown where the subsoil is rich and porous, but good crops have been harvested many years in succession on land underlaid with as tough and hard subsoils as there are in the State.

A successful alfalfa-grower of wide experience said that any land which will produce good corn regularly and on which cottonwood-trees do well is good alfalfa land. This is a fairly safe guide.

The failures in alfalfa-growing in eastern Kansas have come where methods suitable for western Kansas have been adopted, and successes have followed where entirely different methods have been used.

In eastern Kansas, owing to many years of cultivation and a good rainfall, the land is weedy. The usual experience is as follows: Ground thoroughly prepared in the spring, seed immediately put in, a good stand and rapid early growth; in September a field with some alfalfa and a perfect stand of foxtail; next spring no alfalfa or only half a stand.

As a rule we have found that the successful alfalfa-growers in eastern Kansas have started to prepare the ground a year before sowing the seed. They plant the land intended for alfalfa in corn or some other cultivated crop. They cultivate thoroughly and keep the land free from weeds. The following spring oats, or some other crop that can be taken off early, is put in and as soon as this crop is harvested the ground is immediately plowed and thoroughly harrowed. It is then harrowed or cultivated about once in every ten days until the fall rains come. This harrowing has a double effect—it keeps a constant succession of weeds starting only to be destroyed, and it causes a rapid formation in the soil of the nitrogen compounds essential to the growth of the young alfalfa plants. Late in August or early in September, as early as the ground has been well wet, the alfalfa is sown. It may be put in broadcast. A better way is to mix equal quantities by measure of bran and alfalfa seed, drill and cross-drill, sowing half the seed each way. If the season is favorable the growth of the alfalfa will be good through the fall and a good hay crop will be secured the following year. If the ground does not get thoroughly wet in the fall, do not sow, but sow the following spring, and after the alfalfa gets 4 to 6 inches high cut every ten days or two weeks, whether the weeds are bad or not, with a mower set as high as possible.

A crop of soy-beans raised for seed is better than a grain crop to raise just before seeding to alfalfa. The beans if planted early can be taken off in time to sow the alfalfa and the alfalfa can be put in without plowing the ground.

Alfalfa does not want a nurse crop. It does not want to be put in loose, freshly plowed ground. The ground should become settled after plowing and just the surface made loose before planting. Time after time we have heard farmers report at farmers' institutes that they plowed their ground deep, harrowed it thoroughly, immediately sowed the alfalfa and it was a failure. Deep plowing and thorough harrowing are needed, but the ground should settle before seeding. Alfalfa should not be pastured for the first two years.

We have found many farmers who have failed with alfalfa who have cut it for hay just as they would clover—after the field had passed full bloom. In some cases this alone is sufficient to ruin the crop. Alfalfa should be cut in early full bloom, and it is better to make the first cutting in the spring before two-thirds of the plants come in bloom. On the college farm in a dry season we have seen the first crop cut when at this stage, followed by a heavier second crop and a good third crop, while that left to be cut like clover was not ready much before the second cutting of the early-cut and yielded no hay after the first cutting.

We have secured good yields from old alfalfa-fields having less than half a stand by taking a sharp disk harrow, well weighted, and harrowing and cross-harrowing as deeply as the machine would run. This must be done early in the spring.

It will pay three-fourths of the farmers of eastern Kansas to make a trial of alfalfa on the lines indicated. Five acres is sufficient for the first trial; less is not practicable. Follow suggestions and watch the progress carefully. The results in most cases will be satisfactory, and where they are not a farmer with good judgment, with this close watching, can develop modifications of these methods that will succeed on his farm.

Experiments With Sugar-Beets in 1899 and 1900.

J. T. WILLARD.

The chemical department of the Kansas Experiment Station has completed its analyses of sugar-beets grown the past season. The seed from which these beets were grown was furnished by the United States Department of Agriculture, and was of prime quality. It was on hand early, and was furnished to those desiring it immediately upon their application. The growing of small isolated plats was discouraged, farmers being urged to plant one-fourth or one-half acre, or to unite in a given locality for the purpose of making a large number of tests.

The experience of the past year seems to show that interest in the sugar-beet question is diminishing in the State. Only 105 applied for seed, and of these only 22 sent in beets. Many who failed to send beets were prevented from doing so by causes beyond their control.

The samples analyzed showed an average of 10.89 per cent of sugar in the juice. In 1897 and 1898 the percentages were 11.88 and 11.56, respectively. The average coefficients of purity were 76, 78, and 73 in 1897, 1898, and 1899, respectively. A number of the samples included in the general average were grown in the vicinity of Fort Scott, and from seed not furnished by the station. These gave an average of 10.1 per cent of sugar, and a purity of 70.

Seed was sent to 47 farmers in sufficient quantity to plant one-fourth or one-half acre. Of these, 12 sent in samples for analysis. They showed an average of 11.49 per cent of sugar, and a purity of 75.

The best sample analyzed was grown by Abraham Dick, Burrton, Kans., and had 15.72 per cent of sugar, and a purity of 89. The poorest sample had but 4.33 per cent of sugar, and a purity of 43.

The results of the past three years confirm those of former years, and indicate that while Kansas has produced many individual plats of excellent quality she has produced more of inferior quality, and that States in higher latitudes are better situated for successful sugar-beet production. Doubtless with a better understanding of the conditions requisite to success, and a greater willingness to take the pains and make the necessary effort to meet these conditions, better beets can be grown. The State will always be at a disadvantage, however, and with its superb adaptation to corn, wheat, alfalfa, and other staple crops, it is probably the part of wisdom to leave this crop chiefly to other States, except as it is grown for feed.

However, the station stands ready to assist all organizations within the State which desire to test its capabilities in this direction further, and will furnish seed next year to any group of farmers making application before February 1. This early application is necessary to insure getting the seed from the United States Department of Agriculture. Seed will be furnished only for the use of such groups of farmers.

It seems proper to once more caution the public against hasty and ill-considered efforts to establish beet-sugar factories in this State, or indeed elsewhere. A thorough test of the beet-producing power of the locality, and the disposition of the farmers, should be made before a dollar is invested as fixed capital. The station is ready to do its part in all such tests, with an eye single to the ultimate prosperity of the State.

DOUBLE THE FOOD VALUE can be secured from grain fed to live stock if it is cooked. It is more easily digested and assimilated by the animal stomach. These ELECTRIC FEED COOKERS cook feed in the quickest and best way and with the least amount of fuel. Made of cast iron, lined with steel. Boilers made of heavy galvanized steel, made in 12 sizes. Capacity from 25 to 100 gals. Strong, well made and will last indefinitely. Order before the cold weather catches you. Write at once for free circulars and prices. Electric Wheel Co., Box 46, Quincy, Ill.

Rhinehart Farmers' Institute.

EDITOR KANSAS FARMER: The farmers' institute, which was held in Hiawatha schoolhouse at Rhinehart, was a success. The attendance at both the afternoon and evening meetings was light, but there was no lack of interest on the part of those present.

The talk by Mr. J. G. Haney, of the agricultural college, on "Alfalfa and Its Value," combined with "The Kansas Dairy Cow," seemed to strike the popular chord. By means of a chart he showed the value of alfalfa as compared with the other feeds, and dwelt on the different purposes for which it could be used as a feed. To those who are interested in dairying he recommended it as the best feed to produce a good flow of milk, when properly balanced by some other feed. He urged the farmers of this locality to make more of a specialty of this crop, for, as he expressed it, "You have got to have alfalfa, to feed successfully in Kansas."

A discussion followed, in which nearly every farmer present participated. In course of this discussion, the soy-bean was mentioned, and Mr. Haney recommended it highly as a ration for cows and hogs, and urged a trial of it this coming season.

"New Varieties of Wheat" was the subject assigned to Mr. Westgate. He explained that their experiments at the college had not been carried on long enough to bring forth any new varieties, but expressed a hope that they would be able to present some soon. He described in an interesting manner the experiments which had been made in seed-breeding, in an endeavor to bring forth a variety which, beside being rust-proof, drought-proof, and a good yielder, shall contain much more protein than the common varieties.

Mr. T. J. Borman, the enterprising dairyman of Navarre, Kans., read his interesting paper on "Feeds and Feeding for Milk." He left a very simple formula, for what he called a "balanced ration" for milch cows, which can be grown on every farm in Kansas. It consisted of 19 pounds of alfalfa hay and 7½ pounds of corn as a daily ration for the ordinary milch cow.

A. H. Diehl, in "How to Save Half the Milk-Hauling," brought out the necessity of the proper care of the dairy animals and the dairy utensils, besides many interesting ideas regarding milk bacteria.

Mr. Haney then gave a brief description of the college at Manhattan, and also asked that every farmer put his name on the list, to secure the experiment bulletins issued by the college.

The farmers in this locality should make these farmers' institutes a regular thing, to meet, say once a month. Of course, the Manhattan people could not be present at all times, but there are local speakers here who would make the meeting equally as interesting.

RALPH H. PERRY.

Rhinehart, Kans.

TO CURE LA GRIPPE IN TWO DAYS

Take Laxative Bromo Quinine Tablets. All druggists refund the money if it fails to cure. E. W. Grove's signature is on each box. 25 cents

Lumpy-Jaw.

EDITOR KANSAS FARMER:—Will you please republish the iodide of potassium recipe for lumpy-jaw, as I have lost or misplaced the copy of your paper that had it in? CHAS. BARNES.

Mound City, Kans.

Very successful results are obtained by daily 2-drachm doses of potassium iodide administered in the drinking water and continued for ten or twelve days, or longer. The dose must, of course, be varied with the size of the animal. External application of tincture of iodine on the tumors aids the internal treatment. Most animals in a herd usually recover by the treatment, but not all.

Catarrh Cannot be Cured

with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Catarrh is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces. Hall's Catarrh Cure is not a quack medicine. It was prescribed by one of the best physicians in this country for years, and is a regular prescription. It is composed of the best tonics known, combined with the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing Catarrh. Send for testimonials, free.

F. J. CHENEY & CO., Props., Toledo, O.

Sold by druggists, price 75c.

Hall's Family Pills are the best.

ATTRACTIVE WINTER TOURS.
Via Santa Fe Route.

Carlsbad, N. M., and return	$33.35
City of Mexico and return	67.05
Deming, N. M., and return	43.40
El Paso, Texas, and return	43.40
Galveston, Texas, and return	31.35
Jimenez, Mexico, and return	56.15
Lake Valley, N. M., and return	43.40
Las Cruces, N. M., and return	43.40
Los Angeles, California, and return	90.00
Phoenix, A. T., and return	65.00
Prescott, A .T., and return	65.00
Roswell, N. M., and return	29.35
San Antonio, Texas, and return	30.90
San Francisco, Cal., and return	90.00
Santa Rosalia, Mex., and return	56.15
Silver City, N. M., and return	43.40
Socorro, N. M., and return	43.40

Round trip tickets to above points on sale daily at rates quoted. Tickets to California and to City of Mexico are good for nine months. Those for Prescott and Phoenix are good for six months. All other tickets are good until June 1, 1900.

For particulars of service, descriptive folders, etc., apply to T. L. King, agent, Depot.

Holiday Rates 1899-1900.

The Missouri Pacific will sell tickets between stations within 200 miles distance at rate of one fare for round trip, with minimum of 50 cents. Dates of sale, December 23, 24, 25, 30 and 31 and January, 1, limited for return January 4,

THE ROCK ISLAND Playing Cards are the slickest you ever handled. One pack will be sent by mail on receipt of 15 cents in stamps. A money order or draft for 50 cents or same in stamps will secure 4 packs, and they will be sent by express, charges prepaid. Address, JOHN SEBASTIAN, G. P. A., C. R. I. & P., Chicago.

Horse Owners! Use

GOMBAULT'S

Caustic Balsam

A Safe Speedy and Positive Cure

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. *Impossible to produce scar or blemish.* Every bottle sold is warranted to give satisfaction. Price $1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Cleveland O.

The Stock Interest.

THOROUGHBRED STOCK SALES.

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

FEBRUARY 22-23—H. H. Harris, Galloways, Marshall, Mo.

HOW BEST TO DEVELOP THE ROBE TRADE.

By W. E. Brown, Hillsdale, Mich., before the 1889 annual meeting of the American Galloway Breeders' Association.

Among the new enterprises that have lately come into our commercial life, one of large and growing importance is the making of fine robes and garments from cattle hides. And now that the buffalo has passed from the plain, and most of the richly furred animals from the forest, the furrier must turn to cattle hides as among the most desirable of his materials. To develop this trade we have only to remove the few obstacles which now retard it.

One serious trouble that we had in the past in turning cattle hides into robes was that the cost of manufacturing was so great, and the quality so poor, on account of improper tanning, as to limit the demand for the goods, until the tanners turned to Chinese dog, wambat, goat, etc., and produced an inferior article almost at a price that ought to buy a good robe. But with recent improvements in tanning, which I shall speak of later, the Galloway hide can now compete successfully with all others as material for robes.

One thing with which we have to contend is the tariff. There is a duty on cattle hides, but the cheap dog, goat, and wambat hides from China, Russia, and Australia come in free of duty and enter into competition with our native hides. We should be protected by a tariff against these hides of Chinese dog, goat, and Australian wambat, as well as all other foreign cheap hides. Each and every breeder should see that the Congressman from his district is informed of the rapid growth of the Galloway hides in the country, and that these hides are valuable for use in making robes and other fur garments, and that other furs being brought to this country should have a duty imposed on them, at least equal to the duty on cattle hides, in order to protect breeders in this country.

And again, the robe industry has grown up so recently that we have not yet learned to sell direct to the factory. We sell our valuable fur hides along with the common stock for leather, and the middleman makes a leather profit before they reach the furrier or manufacturer, thus reducing the profit of the producer.

Our association should make known to the furriers and manufacturers the names and locations of all breeders, that they may be enabled to buy direct of the breeder and save this profit of the middleman.

Another trouble of which the tanners complain is difficulty in getting the hide of the pure-blooded Galloway. They complain that an intermixture of other blood injures the beautiful black and shaggy appearance of the hair; and while they are willing to pay a premium over other cattle hides, ranging from 20 to 30 per cent for pure Galloways, they can not even then secure all that they need. So this industry may be greatly aided by breeding strictly the pure bloods.

Another complaint made by the tanners is that barbed-wire fences make scars on the hides that greatly mar them, and stanchions rub the long curly hair from the neck of the creature, which of course lessens the value of the hide, and which might easily be remedied.

Another means of developing the robe trade would be to build more factories, and for this there appears a good opportunity.

The owners of the Hillsdale tannery, at Hillsdale, Mich., whom I know to be reliable and honorable men, both told me that with all their experimenting and losses, being new men at the business, they had realized 60 per cent per annum on every dollar of their entire investment for the seven years they had been running; and with improved processes, which are rapidly being introduced, much larger profits should be realized along this line.

There are only four tanneries east of Chicago that I know of—the Crosby Frisian Fur Company, of Rochester, N. Y., a small robe tannery at Three Rivers, Mich., one at Reading, Mich., besides the one of Worthing & Alger at Hillsdale, Mich., and a small one West, at Berlin, Wis.

As near as I can learn the first tannery and factory for the manufacture of black robes and coats was started in Chicago about ten years ago. This concern soon failed, because of imperfect process in coloring and tanning. One of the employees of this factory came to Hillsdale and assisted in starting the Hillsdale tannery. The first year 600 robes and coats were tanned and sold. This trade has steadily increased, until the output for the present year has already reached 6,000 robes and coats. Seventy hands are steadily employed, and 42 processes are used in the manufacture of their goods. As an adjunct to the Hillsdale tannery, we have the glove and mitten factory. Twenty-three to 24 tons of scrap is here sorted, and the best pieces used to make gloves and mittens. The remainder is sold to Chicago and Detroit glue and fertilizing companies. Not a single piece is wasted.

With the increase of factories will naturally come another great need in the robe trade, and that is better machinery and better methods for preparing the hides. This need is being rapidly supplied.

An objection that has often been urged to a fur coat from a Galloway hide is that it tans stiff. The fact is that the best tanneries are now able to overcome this objection by their improved process, and make the hide soft as cloth.

Another trouble to owners of fur goods is their liability to partial or total destruction from moths, and there has now been developed a process of tanning from which the tanners guarantee their goods against moths. Another means of developing this industry would be to advertise more extensively and promulgate generally the facts that the robes from the Galloway cattle outwear all other robes; that a robe from an imported skin, Chinese dog, goat, and wambat, is a very poor one, compared with the product of Galloway hides; that a beautiful black robe for coat or other use can be tanned soft and pliable from our Galloway hides, and that it can be made into a coat so that the fur will not wear off the edges, and the garment will preserve its perfect appearance for many years; and it can be so tanned that moths will not touch it. I am told by the manufacturers that Galloway robes and coats are equally as good as the bear or otter, which are worth $75, while we are selling the Galloway robes and coats for $15. All these statements can be vouched for.

Now, breeders, we have: (1) Lessening expenses by better methods, which ought to raise the price at least 10 per cent; (2) by breeding pure bloods, 10 per cent; (3) barbed wire and stanchions looked after, 5 per cent; (4) more factories will increase business for more hides and competition will raise the price, 20 per cent; (5) improving qualities by better methods and mothproof being known, 10 per cent; (6) advertising what the hides are for (robes and fur garments), 15 per cent; (7) selling direct and leaving the middleman out, 25 per cent; (8) protected by a tariff (if we ever get it), 30 per cent; (9) in addition, the advantage over other cattle hides in coloring, 25 per cent; (10) advantage over other hides for fur and lasting qualities, 50 per cent, making a total of 200 per cent, or three times the present price; and, breeders, this increase in price is not far off.

With a little more of our modern enterprise expended in this industry I can prophesy for it an important place in the future.

From time way back, from the days when the Indian hunted along these shores, the warm robe from the beast has been the comfort of mankind; and in this fast age when mankind discards the horses from his carriage, and the wire from his telegraph, he still needs the fur robe. He will not discard that, and he demands the best in that line, and the best quality and price can now be found only in the Galloway herd.

Live Stock Meetings and the Press.

EDITOR KANSAS FARMER:—The combined live stock interests of America are enjoying the dawn of a new era of prosperity. The time is most propitious for improvement in this most important branch of agriculture. All kinds of successful business is thought out before it is worked out. Back of the fairs or international live stock expositions must come first the "fitting" or qualifying of the man who shall successfully breed and fit the stock. Herein is the aim or object of the State live stock breeders' organizations—the opening of a new era for stock-breeding and improvement—whose province is to lead the stockmen and farmers to better and more intelligent methods and thus enable them to do beneficial and effective work for the live stock interests of their State.

The object of such live stock meetings as was recently held at Springfield, Ill., Sedalia, Mo., Lansing, Mich., Ames, Iowa, or Lincoln, Neb., is education, and the encouragement of thought, for out of thought comes knowledge, and knowledge is power. This bringing together in a two or three days' meeting of capable men, who have either made a special study of matters relating to their subjects or have made a notable success in the practice of the art they represent, is immeasurable. It is helpful alike to the professor of animal husbandry and the progressive farmer. The plans for the meeting should be made early; at least such is the idea of the promoters of the Illinois Live Stock Breeders' Association, as they have already outlined their program for the next meeting, in November, 1900, and are corresponding with desired speakers.

It is important to first find those topics about which stockmen are especially interested or need information, and then find the right man to present the subject, whether it be a lesson in stock judging or an address for discussion on the program. These are perhaps the most essential points leading up to a successful meeting. The power of the press is a dominant factor in all business in these days. Unless persistently advertised much of the benefit of a good program is lost. One live editor actively enlisted in the work is worth a whole township of indifferent farmers to work up a live stock meeting. We have never known of a live stock association to die or fall down when there was a live editor of an agricultural paper behind it and pushing it with all its might. It is one thing to simply print a notice in a paper, and another thing altogether for the editor to put his personality behind it and push it on, or, as the boys say, "whoop it up," for the meeting, in his own State at least, in the way of encouraging the promoters of the enterprise, and then when the meeting comes off, to send a commissioner or specially authorize some one in attendance to make a full report of the proceedings. The management of the Illinois Live Stock Association is always glad to extend every courtesy to representatives of the press and is especially grateful for the splendid consideration shown by publishers. After all it seems to me that any fair-minded editor will be glad to coöperate with his State live stock association and thus make himself "solid" with the stockmen and farmers, who, after all, furnish his bread and butter.

With a better understanding of the purpose and more experience in the conducting of these meetings selfishness will be thrown to the winds and work of live stock production will be for mutual helpfulness, which shall lead us to a more profitable agriculture, a broader and deeper farm mind, and a happier farm life. The man who keeps up with the procession in the twentieth century must abandon scrub stock and scrub methods, think more, broaden his life, and give a more sinewy grasp to his mind, and thus put an intellectual stamp upon the business of farming. In the words of Secretary Coburn, "The successful farmer must fertilize with brains and make live stock an important adjunct of his business."

Athens, Ill. FRED H. RANKIN.

Stockmen to Meet.

EDITOR KANSAS FARMER:—A meeting of the Kansas State Live Stock Association is called to meet at the court house in Emporia, December 28, at 2 o'clock p. m., for the purpose of taking some action toward protecting cattle shippers against the unreasonable and unjust freight rates recently put into effect by the Kansas railroads, and also to make an effort to obtain better service from the railroads in the transportation of live stock.

All parties interested, whether members of the association or not, are invited to attend.

J. W. ROBISON, President.
GEO. PLUMB, Secretary.

"What's in a Name?"

Everything when you come to medicines. A sarsaparilla by any other name can never equal Hood's, because of the peculiar combination, proportion and process by which Hood's Sarsaparilla possesses merit peculiar to itself, and by which it cures when all other medicines fail. Cures scrofula, salt rheum, dyspepsia, catarrh, rheumatism, loss of appetite and that tired feeling.

Hood's Sarsaparilla
Never Disappoints

Hood's Pills cure liver ills; the non-irritating and only cathartic to take with Hood's Sarsaparilla.

Winter Care of Bulls.

By B. D. McCrae, Guelph, Canada, before the 1889 annual meeting of the American Galloway Breeders' Association.

Three points seem to stand out very prominently in the care of bulls on our northern farms in winter—1, housing; 2, feed, and 3, exercise.

As to the first, comfortable housing is usually given in the winter months. A loose box with room for two is desirable. If closely adjioning the rest of the herd, a roomy stall or an ordinary loose box will do very well. It should not be kept too warm, and should be well lighted and well ventilated. If it can be whitewashed once or twice during the winter, so much the better, as light is very necessary for good health. Sunshine direct, if possible, is desirable. Avoid solitary confinement, relished neither by man nor beast. Most bulls are better housed with a companion near the rest of the herd.

Feed may vary according to the locality and surroundings. The usual stock fodder may do very well for the bull. Plenty of plain, wholesome food is needed, and this should be modified by such variety as may be available.

Avoid rich, sugary foods and those of a heating tendency. Meals of all kinds should be given with care, and only a moderate quantity fed. Cut corn stalks, chaff, cut straw, and a small silage ration, with hay, may be used for the staple food. Roots are very suitable and may be used liberally. Wheat bran and chopped oats make good variety. Ordinary corn is more of a heating food, but it may be used carefully in small quantities. Roots of all kinds are good. Not many years ago a prominent Shorthorn breeder was visiting Great Britain to purchase bulls. In Aberdeenshire, at the home of a prominent breeder of Scotch Shorthorns, he noticed the service bull was very large and fat, and remarked that if he were in Canada he would be thought too fat for the best breeding results. "Fat, fat," answered the Scotchman. "He has had nothing all winter but a pickle oat straw and 6 bushels of turnips a day." On this continent we have not reached such heavy root feeding.

Roots are splendid winter feed for the bulls. In the fall, white or yellow turnips are first used, then swedes, and for spring feeding mangels are at their best.

Exercise is very important. Ample exercise must be given the bull if he is to be kept in the best breeding condition. Good results have been obtained by working the bull all winter and having him cut the feed for the rest of the herd. Much more might be done in utilizing the strength of our bulls for useful labor than has been before tried. There is room for ingenuity in this matter of arranging convenient and easily managed work for our bulls. If working plans be not manageable, then he should have a daily walk, or a run outside in a small paddock. With a loose box this may be less frequent, but it is desirable always. A bull worked regularly may be given a more generous meal than one getting only a little exercise.

With daily exercise, the largest and best bulls may be kept in useful service for many years. Not only will that result be obtained, but a larger and more vigorous calf crop will result from careful feeding and systematic working of our Galloway bulls.

FEEDS AND FEEDING FOR MILK.

T. A. BORMAN, NAVARRE, KANS.

Dairying of to-day is a business just as is any manufacturing enterprise. It affords the same opportunities for success or failure and demands the same business sense. To succeed, the same careful and thorough business methods must be employed. The dairy farmer must be progressive. He can afford to use but the latest improved cow machine, and operate that machine after the up-to-date methods of his business. Competition demands that the cow be fed economically, at the same time securing a maximum yield.

The feeding of the milch cow rests upon certain well-defined principles. The animal body is continually breaking down and being consumed. If the body is kept healthy and vigorous there must be a constant supply of new material. To afford this supply, to maintain the heat of the body, and to furnish and provide the force or energy which enables the cow to perform the functions of the body, are the chief uses of all foods. If, in addition to supplying the wastes of the system and furnishing it with heat and energy, milk is to be secreted, then an additional supply of food is required. To supply this food in the right proportions to meet all of these requirements without a waste of food constitutes scientific feeding, or, more properly, common-sense feeding.

The animal body is composed of, and can be reduced to, four substances, namely, protein, which is lean flesh; water, ash, and fat. These are the substances which the food must supply. Our common farm feeds are composed of the same elements and in the same combinations as those found in the body.

A wise Creator has provided just what is required by the body, in the grains and grasses of the fields. But these feed stuffs differ from each other in three important particulars: First, as to the quality of the nutrients; second, as to the quantity, and third, as to the digestibility. Only that portion of food which can be digested is of value, so only the digestible portion is considered in our formulas. All farmers know that feeds differ in the quantity of their nutrients. That is to say, grain contains much more nutrition in a given bulk than hay, straw, or fodder—this being the reason why grain costs more money than fodder. The most important difference, however, in feeds is in the quality of the nutrients. These nutrients are, first, protein, the only substance from which flesh and blood can be formed. There can be no growth or development of muscle when protein is deficient, and there can be no milk when there is no protein. The milk in the pail is measured by the protein the cow gets in her feed. Protein is indispensable. An animal would starve to death on a food containing no protein. Of next importance is the carbohydrates, providing, heat, energy, and fat. In nearly all our feeds carbohydrates is present in great abundance. The third nutrient is fat, and is essentially the same as fat in the body and in feed is found in small quantities except in cottonseed, flaxseed, and like seeds rich in oil.

Based on these facts experiments have established other facts in regard to the economic use of feed stuffs, with a view to diminishing the waste of feeds and at the same time get the greatest production of milk or beef for the feed consumed. These experiments give us our feeding standards, showing the quality of nutrients demanded by the dry cow or the cow in milk, and the relation that protein must bear to carbohydrates and fat. In fact these experiments have given us the balanced ration, which in years gone by has proven such a bugbear to the average Kansas farmer.

In a balanced ration feed stuffs of low protein content are combined with those having an excess of protein in such proportions that the combination of nutrients is in accordance with certain established standards. For the milch cow the feeding standard requires 2.5 pounds of protein, 12.5 pounds of carbohydrates, and .5 pound of fat for 1,000 pounds of live weight. The most perfect ration we have is that provided by nature in the month of June when there is an abundance of appetizing, succulent grass supplying the milk-producing materials which force the dairy cow to her best yield. Good grass furnishes nutriment in the proportion of 2.9 pounds of protein to 11.83 pounds of carbohydrates and .58 pound of fat. The nearer we can approach this ratio in our winter feeds the better for the the balanced ration. See this comparmilk yield, and herein is the object of ison of June grass and the balanced ration:

	Protein.	Carbohydrates.	Fat.
June grass	2.9	11.83	.58
Balanced ration	2.5	12.5	.40

To effect a combination of feeds palatable and succulent, approaching as near as possible the ratio of the food nutrients as found in grass, should be the object of every feeder who seeks the highest success at milk production.

The balanced ration is a common-sense feed; it is an economical feed—a feed the object of which is to produce maximum milk yield at minimum cost. The balanced ration is as essential to successful dairying in Kansas as it is in Minnesota or New York.

Here is a ration in common use in Kansas dairies to-day:

Ration No. 1	Protein.	Carbohydrates.	Fat.
25 lbs. corn fodder	.50	8.30	.15
10 lbs. corn	.78	6.67	.43
Total	1.28	14.97	.58
Required	2.50	12.50	.40

Total cost of ration ..... 4.67 cents.
Cost of one pound protein ..... 3.1 cents.

The ration is deficient in protein, resulting in low milk yield, and has an excess of fat and carbohydrates insuring a fat cow.

Ration No. 2.	Protein.	Carbohydrates.	Fat.
20 lbs. sorghum	.48	8.12	.24
6 lbs. Kaffir-meal	.46	3.42	.16
4 lbs. bran	.49	1.48	.10
Total	1.43	13.02	.50
Required	2.5	12.5	.49

Total cost of ration ..... 4.46 cents.
Cost of one pound protein ..... 3.5 cents.

While a little richer in protein, this ration is still deficient as a milk-producer and will have the same effect on the cow as No. 1:

Ration No. 3.	Protein.	Carbohydrates.	Fat.
20 lbs. sorghum	.48	8.12	.24
3 lbs. Kaffir-meal	.23	1.71	.08
5 lbs. bran	.61	1.81	.13
3 lbs. cottonseed meal	1.11	.49	.37
Total	2.43	12.17	.81
Required	2.5	12.5	.40

Cost of ration ..... 8.4 cents.
Cost of one pound protein ..... 3.4 cents.

For all practical purposes this is a balanced ration. It provides protein as cheap as in either of the former, and while the cost of the whole feed is double that of No. 1 and No. 2, it provides two times as much protein, and hence is as cheap. From this one good results are sure to come and it bears out the statement that the balanced ration is economical feeding.

Ration No. 4.	Protein.	Carbohydrates.	Fat.
19 lbs. alfalfa	2.01	7.09	.27
7½ lbs. corn	.59	5.00	.32
Total	2.60	12.09	.59
Required	2.5	12.5	.40

This is a balanced ration and the cost too low to figure. It can be fed on every Kansas farm and will produce the best possible results. It will save the millers' bills and make unprofitable a hitherto paying business.

Here are two rations used in Dickinson County last year. They were employed on neighboring farms and the result of each feed was closely watched by the people of the community. The ration No. 5 was that of a herd of grade Shorthorns, and the cows were hog fat during the time of its use, and the average daily milk yield per cow was about 20 pounds. Ration No. 6 was fed to a herd of dairy-bred cows and the animals were in good condition, yielding nearly 40 pounds per day each:

Ration No. 5.	Protein.	Cost.
25 lbs. Kaffir fodder	.6	.....
4 lbs. oats, ground	.392	4. cents.
8 lbs. Kaffir-meal	.624	4.64 cents.
Total	.996	8.64 cents.
Required	2.5	

Cost of one pound protein ..... 8.7 cents.

The farmer figured oats at the market price, 32 cents per bushel, and Kaffir-corn at 30 cents. This ration is the most extravagant I ever knew. It furnishes less than 1 pound protein, yet costs nearly 9 cents per day per cow. The feeds are all home grown and one would naturally expect cheapness if not excellence, but it failed in either.

Ration No. 6.	Protein.	Cost.
25 lbs. sorghum	.6	.....
6 lbs. bran	.984	3.4 cents.
5 lbs. gluten-meal	1.55	4.5 cents.
Total	3.134	7.5 cents.
Required	2.5	

Cost of one pound protein ..... 2.4 cents.

Here was economical feeding. This ration contained more than three times as much protein as No. 5 and cost 1 cent less, but the protein per pound cost 6 cents less, or this ration was just four times cheaper than No. 5, yet it more than met the requirements of the feeding standard. However, an excess of protein is a good thing to feed. The cost of the rations is figured on cost of grain only. The roughness in many cases has no market value; besides the grain was fed for milk, and this will indicate the additional cost of feeding a dairy cow over cost of feeding a stock cow.

The unbalanced ration, or that ration in common use to-day, is regarded by the farmer as most economical for the reason that the feeds are grown on the farm. The dairyman is averse to buying feeds when he has corn and oats in so great an abundance. On "general principles," as they call it, they will not sell corn and buy bran or the rich concentrated feeds. Let us note a few exchanges that might be made with profit: One ton oats is worth to-day $14.62 and provides 186 pounds protein, costing 8 cents per pound. One ton of corn is worth $8.87 and provides 156 pounds protein, at a cost of 6 cents per pound. One ton of bran costs $10 and provides 246 pounds protein, costing 4⅓ cents per pound. One ton cottonseed-meal costs $25 per ton and provides 740 pounds protein, costing 3⅓ cents per pound.

While we have our feeding standards, on the basis of which all these rations are figured, it is a fact that there can be no such thing as a universal recipe of certain foods producing specific results in all cases. The quantity of milk yielded by the cow, or the cow's ability to produce a large quantity, should be the measure for the feed. What will suffice for one animal may be more than necessary or too little for another accomplishing the same work, owing to differences in adaptability, in digestive and assimilative powers, in care and environments.

It should not be forgotten in compounding a ration that the cow has a capacious stomach and is fitted to consume relatively more coarse fodder than any other farm animal, and hence in arranging her feed proper regard should be had to bulk as well as to the composition of the feed. For example, 20 pounds of prairie hay or 10 pounds of corn-meal will furnish practically equivalent amounts of nutriment, but on the corn-meal alone a cow could not thrive, on account of its failure to digest properly, consequent upon its inability to distend the cow's stomachs and subdivide the concentrated food. Under ordinary conditions it is best to provide the cow with two-thirds of her dry matter in roughness and one-third in grain.

Liberal feeding always pays. The stingy feeder cheats himself as well as the cow. Although her belly is full, the Kansas cow does not yield the milk and butter she should—she is starving for the want of that one thing from which milk can be made, protein. Her milk glands are truly wonderful, but they can not make milk out of corn-stalks and nubbins any more than butter can be made from skim-milk. If she would produce milk she must have a generous supply of food containing the materials from which milk is made. The cow is a living machine converting the raw material into either beef or milk, and if the supply of raw material is cut short the output must be correspondingly small. The cow that will not pay for generous feeding should be disposed of—she has no place in a dairy being run for profit. But some cows are absolutely incapable of converting food into milk. Get rid of these. In many cows there are certain inbred characteristics which even liberal feeding can not overcome. That is to say, that a cow bred for beef can not be fed to produce milk economically or profitably. Not until these facts are understood and appreciated can our dairies be as profitable as they should.

Now as to results of feeding a balanced ration. On June grass a farmer's cow made 12 to 15 pounds of butter a week, but on a winter's feed of prairie hay, corn fodder, and corn she made less than 5 and was rapidly drying up. She made 12 pounds on feed containing nutrients in the proportion as set forth by the feeding standard, and 5 pounds a week on a ration prescribed by a feeder who knew not or heeded not the value of protein.

The records of some 80 herds of cows located in one of the leading dairy districts of this State show an average yield of 3,341 pounds of milk for twelve months, and 1,045 pounds of butter fat valued at $19.79. Contrast this, if you please, with the record of the college scrub cows—cows individually far below the average of the Kansas dairy cow—which were fed at all times a balanced ration, or a ration containing an excess of protein. These cows produced an average of 5,707 pounds of milk and 238 pounds of butter fat worth $37.75, or a difference of $18 in favor of the cows receiving the required amount of protein. G. W. Borman & Son, of Navarre, returned to the college a statement of their herd of Holsteins, showing the largest yearly product of milk and butter fat of any herd of the State, and over 300 reported. The feed of this herd approximated at all times a balanced ration.

Does it pay to feed a balanced ration? In the case of the 2 herds mentioned it certainly did pay. The college scrubs yielded a profit of $16.25 per cow above cost of feed, when corn-meal cost 55 cents per 100, Kaffir-corn 55 cents, linseed-meal $1.25, soy-bean meal $1, cottonseed-meal $1, bran 55 cents, alfalfa $4 per ton, and pasture 75 cents per month. The best 4 cows netted a profit of $40, $37, $28, and $23. When the above prices must be paid for feed, and when cows of doubtful producing capacity consume it, the skilled feeder proves his superiority over the careless makeshifts of feeders who are prescribing for the thousands of Kansas cows. Does it pay to feed for an income from butter fat of $19 when no balanced ration was fed, or for an income of $37 or $49 when a bit of intelligence and painstaking entered into the feeding problem? As has been shown the balanced ration is economy. It cost no more to feed the $47 cows than it did to feed the $19 herds. The only difference was in the object of the feeding. In the one case it was feed skillfully handled, producing the results at which it was aimed, and in the other it was the misuse of improper foods. The balanced ration does pay.

In selecting feeds to make up the balance ration the farmer must be governed by the market prices. Protein can usually be provided in some one feed cheaper than in others, and frequently that is cottonseed-meal, but not this year, on account of a short cotton crop. But to realize from dairying the greatest profit, it is essential that the Kansas dairy farmer grow his own feed. That is, he must learn to grow his own protein, and that it can be done has been proven beyond all possibilities of a doubt. It has been shown in our rations that Kaffir-corn, sorghum hay, prairie hay, corn-meal, and oats can not be so combined as to make a balanced ration, or that a cow can not reach a maximum milk yield through her inability to consume sufficient of these feeds to extract the required amount of protein. And since this list of feeds constitutes the provision that 9 out of every 10 Kansas farmers have made for the winter's feed, you note the necessity of some feeds rich in protein, and this can only be secured by the addition of expensive concentrates, ranging in value from $25 to $30 per ton, unless something in the place of these can be produced at home. The Kansas dairyman then must find his salvation in soy-beans and alfalfa, to the production of which the soil and climate of Kansas is especially adapted. They are rich in protein and provide it at a low cost per pound. Home-grown protein is what the farmer must provide. With it he is independent of all millers and all dealers in the high-priced concentrates.

Note these comparisons, first bran with alfalfa hay:

	Protein.	Carbohydrates.	Fat.
Bran	12.3	37.1	2.6
Alfalfa	10.6	37.3	1.4

By growing alfalfa we can substitute it for bran, and instead of feeding $10 bran to-day we can feed alfalfa grown on our own farms at a low cost and make it worth $10 per ton.

	Protein.	Carbohydrates.	Fat.
Linseed-meal	28.8	32.8	7.1
Soy-beans	29.6	22.3	14.4

Soy-beans can be grown on our farm at the rate of 15 to 18 bushels per acre.

A hundred pounds of them have a greater feeding value for milk than linseed-meal worth at present $25 per ton. Alfalfa and soy-beans are absolutely essential to the cheapest production of

A COLLEGE EDUCATION

is the best life equipment that can be provided for a young man or a young woman. Everybody can't afford it, but every man who keeps a dozen or more cows may easily do so. **A Sharples Separator** of the **Little Giant or Safety Hand** pattern will, in a short time, make extra butter enough to pay for a college education for each member of your family. Send for Cataloge No. 19.

The Sharples Co., Canal & Washington Sts., CHICAGO. | **P. M. SHARPLES,** West Chester, Pa. U. S. A.

...WE SELL THE...

SHARPLES.

PETER HEIL & SON,

210 Sixth Ave., West, Topeka.

large quantities of milk by the Kansas farmer.

Now, in conclusion: What the exact amount of nutrients, protein, carbohydrates, and fat required by the cow should be is an unsolved problem. Approximately they are known as above indicated, and it does not require very persuasive arguments to convince the intelligent farmer of the importance attaching to this feeding question. As there is one best way to perform any work, so some rations are better adapted to feeding milch cows than others. Every feeder must strive to secure the cheapest, most palatable, and productive ration for his purpose. "Skill in combination and adjustment of a ration from the foods on hand and at the same time satisfying animal individuality, means success. The mastery of the problem underlies successful feeding and forms the fundamental principles upon which all profitable dairy practice must be based."

Gossip About Stock.

D. L. Dowdy & Co., of Atchison, Kans., the recent purchasers of Shannon Hill Farm from Governor Glick, announce that they will hold a public sale of 150 head of Shorthorn cattle on April 11 and 12 of next year.

C. F. Wolf & Son, Ottawa, Kans., now have 2 herd bulls in use at Glendale Farm, Scotland's Charm 127264, and All Scotch 123495. They now have 8 Scotch bulls for sale and 20 Scotch and Scotch-topped females which are ready for intending purchasers.

L. A. Webster, the live stock artist, has been doing some sketching for Kansas breeders recently, including such breeders as James Mains, Oskaloosa; J. C. Curry, Quenemo; C. A. Stannard, Sunny Slope, Emporia; J. W. Ferguson and Joe Foster, of Topeka. His handiwork will grace the columns of the Kansas Farmer in a short time.

T. A. Hubbard, Rome, Kans., president of the Kansas State Board of Agriculture, and breeder of Berkshire and Poland-China swine, reports to the Kansas Farmer that every prospect is pleasing down in Sumner County and that he has some great bargains to offer just now of both breeds and both sexes of each breed. Write Mr. Hubbard at once for particulars.

O. B. Whittaker, president of the Kansas Christian College, Lincoln, Kans., recently purchased of C. A. Stannard, Emporia, Kans., 16 head of Sunny Slope heifers, 2 years old and over, as foundation stock for his herd, which is headed by Lincoln, the herd bull which Mr. Whittaker purchased of Albert Dillon, of Hope, Kans. This herd will do credit to northwestern Kansas.

J. F. True & Son, of Newman, Kans., now offer for sale their herd bull, Waterloo Duke of Hazelhurst 11th 130723, 4 years old, by the same sire as Peculated Wild Eyes 109348, and tracing to the same improved dam, Waterloo Duchess 3d, by Waterloo Earl 32816, as Waterloo Duke of Hazelhurst 7th, that was sold November 7, by Steddom Brothers, at Oskaloosa, Iowa, for $1,000.

"Greenacres" is the name of a Hereford cattle breeding establishment recently visited by a Kansas Farmer representative. It is owned by J. C. Curry, of Quenemo, Osage County, Kansas. Greenacres is the home of that notable sire, Archibald 1st, who has about 40 shapely and typical females to his credit now on the farm, showing that quality is the first consideration with Mr. Curry as a breeder. Most of the Archibald females are now offered for sale and should attract a good class of breeders.

The proprietor of Sayda Polo Farm, of Parsons, Kans., reports the recent sale of a fine bull calf to go to Minneapolis, Kans.; another to southwest Missouri; 2 yearling heifers to southern Arkansas, and have prospective buyers for the 3 registered cows and 2 yearlings now advertised in the Kansas Farmer; also inquiries for the young son of Sayda Polo, the reigning queen on the farm. This youngster combines all the blood lines found in General Marigold, that sold at auction last May for $800. His Marigold calves are more than meeting expectations.

W. H. McCall, of College View, Neb., makes an important change in his advertisement this week. He writes that he has sold the 2 young bulls advertised. Now he offers the very fine 4-year-old show bull, Carlotta Chief, that headed his first prize young herd at the Nebraska State fairs in 1896 and 1897. This fellow now weighs about 1,800 pounds and is gentle and kind. Mr. McCall is also offering 11 head of yearling and 2-year-old heifers. The 2-year-olds are either fresh or soon will be. The McCall herd of Holstein-Friesians is one of the best-bred and best-kept herds of dairy cattle in the entire country. If interested write him.

Hog men—and there are plenty of them—who are on the lookout for bred sows to bring new blood into their herds, will be interested in knowing that as good breeders as Kirkpatrick & Sons, of Connor, Kans., are preparing to make a special private treaty offering of just this sort. The service of 3 well-known boars are being employed in this preparation. Watch the columns of the Kansas Farmer for further announcement. Combination F. F. (interpreted to read, "a combination of first families"). Mr. Kirkpatrick's herd boar by Chief Tecumseh 2d and out of a Black U. S. sow, has a second crop of pigs to his account, repeating the demonstration of his ability to sire uniform litters of especially blocky and heavy-hammed youngsters.

J. R. Killough, of Ottawa, Kans., shows his hearty appreciation of Kansas Farmer advertising. in a recent letter which says: "I just sold a herd-header to Geo. R. Ross, of Alden, Kans., and have another of the same stripe that ought to go to as good a man. He is by my J. R.'s Tecumseh and out of a Hadley Jr. sow, and has all the substance and finish of his 2 great grandsires. Other recent sales are to S. M. McGraw, Aubrey, Mo.; B. F. Walker, Garnett, Kans.; R. E. Casad, Ochiltree, Kans.; A. H. Hays, Waverly, Kans.; E. J. Haas, Allen, Kans.; James Drummond, Elmdale, Kans., and E. Hume, Norwood, Kans. This nearly cleans us out of boars, but we are breeding some fine gilts to our Tecumseh boar and are ready to begin shipping them. We have received so far in boars an average price of $21."

When it comes to breeding boars there are few hog men better "fixed" than James Mains, of Oskaloosa, whose card is familiar to readers of the Kansas Farmer. One of the boars at the head of Mr. Mains's herd—the Junior—has already received several favorable notices, Mr. Mains having bought him at 6 months for $102. The pig will be remembered as the best of a litter out of Anderson's Model and by Winn & Son's champion, Perfect I Know, sold at Mr. Null's recent fall sale. The boar is of large size and individually all his breeding would lead one to expect, while in vigor and action he is exceptionally good. This young fellow has good timber to work on, Mr. Mains's Junior females being nearly all by his other herd header, Highland Chief, by Chief Tecumseh 2d, who was used for breeding and show purposes by Dietrich & Spaulding previous to his purchase by Mr. Mains.

O. E. Morse & Son, of Mound City, Kans., come before the readers of the Kansas Farmer this week with the advertisement of their Missouri's Black Chief, Chief Tecumseh 2d, and Look Me Over Poland-Chinas. In the eastern part of the State O. E. Morse has been known for over twenty years as a breeder of thoroughbred hogs, having brought from the herds of D. M. Magee and his associates in founding the breed the first pure stock known in that section. Being fully aware of the value of Black Chief blood and having had opportunity to observe its admirable effect in the person and produce of J. R. Young's Missouri's Black Chief, Mr. Morse was one of the first breeders to possess himself of this great hog's get, and owned his descendants of two generations when the triumph at Illinois State fair made him famous. At Joe Young's recent sale Mr. Morse purchased 3 more of W. B. C.'s toppiest gilts, out of W. B.'s Tecumseh, Look Me Over, and Chief I Am sows. Turley's Chief Tecumseh 2d and a Look Me Over boar out of a litter sister to Anderson's Model also have daughters among the females of this herd. Morse & Son's place, which adjoins the townsite, can be reached in a few minutes from the Missouri Pacific depot at Mound City.

Wait & East, in changing their Poland-China advertisement, write: "We are sold out of early spring and yearling boars but have some May and July boars, some of them a little the best that we have had to offer lately, very large, smooth, and fancy; also a few gilts of the same age. We have 20 fall of 1898 gilts still for sale and some are good enough in breeding and individuality to grace any herd; and in order to reduce our large herd some we are offering 10 of our tried herd sows. They are all in their prime and have proved to be prolific and careful mothers and good sucklers. We have now 100 fall pigs that are immense and some of them are the best at their age we ever raised, and all of them are for sale, without reserve; and, as we have more than we can properly accommodate through the winter, we will make bargain prices on them for the next thirty days. It would pay parties thinking of starting a herd to buy at this age and save express charges on them. We are offering 2 of our herd boars for sale, having used them as long as we can to advantage. One is Kansas Wilkes 39083 by McKelvis by McWilkes 29335, dam by Guy Wilkes 2d 17777. He is a very large, smooth hog, extra heavy bone and as good feet and legs as was ever put under a hog, and is a grand breeder. The other boar is our 1899 show boar, Corwin I Am 44341, a grandson of Chief I Am 43023 on sire's side, and on dam's side a grandson of both Sir Charles Corwin 40881 and Longfellow. He is a show hog and a product of show stuff. The low price of $25 will buy either of these boars.

A remarkable record which, though previously mentioned in these columns, is worth giving in full and calling attention to again, is that of a Poland-China sow owned in Jackson County. This sow, owned by Jno. E. Hoagland, of Holton, from whose private herd book the following is taken, is Our Pride, by Longfellow and out of Miss Whiting, tracing to Give Or Take on the sire's side and to Black Bess on the dam's side. Her record as a producer, given below, is worthy of these two great ancestors: Farrowed May 11, 1891, in a litter of 8 she produced, May 4, 1892, 7 pigs, saving all; October, 1892, 7 pigs, saving all; April, 1893, 7 pigs, saving all; July, 1893, 7 pigs, saving all; December, 1893, 7 pigs, saving all; June, 1894, 7 pigs, saving all; October, 1894, 8 pigs, saving 7. At this time she was 3 years and 5 months old, weighed 668 pounds, and measured 6 feet heart girth and 6 feet 2 inches flank girth and had produced 50 pigs, saving all but one. In June, 1895, Our Pride again produced 7 pigs and saved all. The next December she had 10 unexpectedly and all were frozen. Cholera the next year caused the loss of a litter of 9 and the missing of one season's breeding, but in July, 1897, she saved 8 out of a litter of 12; February, 1898, she saved 1 out of a litter of 11; June, 1898, she lost a litter of 12; November, 1898, she saved 4 out of 10, and May, 1899, she saved 5 out of a litter of 7. At this time the sow was 8 years old and had produced 128 pigs, or an average of 16 pigs each year of her life, and had saved 74 pigs, or better than 9 a year. Taking her life from a yearling to a 4-year-old sow, which is the useful period for the average animal, she saved 56 pigs, an average of 18 per breeding year, or 14 each year of her life.

The Sunny Slope Herd of Berkshire swine, owned by C. A. Stannard, of Emporia, Kans., is reputed to be the largest Berkshire breeding establishment in the world. Last week a Kansas Farmer representative called at Sunny Slope, and while there a $50 order was received from R. H. Lide, of Livingston, Ala., for a Berkshire gilt by the herd boar, Longfellow W. Mr. Stannard stated that Berkshire sales were very brisk, and the following comprise a list of the more recent sales of Sunny Slope Berkshires: A boar to H. H. Estwood, Hueneme, Cal.; a Lord Premier boar to J. Chilson, Hanover, Mich.; 2 sows and a boar to Byers & Co., Fostoria, Ohio; a boar to W. S. Reynolds, Green Top, Mo.; a boar to The 101 Live Stock Co., Blois, Okla.; a sow to Mrs. S. H. Jones, Oak Grove, Mo.; a boar to Geo. A. Gibbons, Lee's Summit, Mo.; a boar to J. H. McCallum, Severy, Neb.; a sow to Chas. G. Mills, Pleasant Hill, Mo. The late Kansas sales were: A boar to each of the following: John Pratheroe, Arvonia; Alex. Mustard, Manchester; J. H. Boyer, Yates Center; Wm. Thornton, Green; B. G. Griffin, Bradford; R. E. Bovard, Eskridge; L. H. Baker, Bayard; Geo. Lauffer, Severy; V. R. Ellis, Gardner: J. B. Hyde, Beloit; Richards Bros., Comiskey; John Maloney, Skiddy; S. B. Gillum, Gypsum; 3 boars each to John Drummond, Elmdale; Jas. Kackley, Kackley; Jess. Kester, Eureka; L. Womer, Womer; M. Low, Solomon; Samuel Gratton, Wakefield; Thos. Gaume, St. George; H. Immasche, Saffordville; M. C. Knot, Osborne; G. J. Droll, Randolph; John Wyatt, Jetmore; J. D. Laughlin, Cawker City; 2 sows to W. T. McConnell, Dunlap; 2 sows to Walter Wirthe, Augusta; a sow to S. W. Kincaid, Beloit; a sow to E. Lefebure, Onaga; a sow and boar to R. C. Hunter, Cottonwood Falls; 10 sows and 1 boar to J. C. Burkett, Americus, Kans. Mr. Stannard intends holding a public sale of bred sows and a few boars, at Kansas City, February 17, 1900, and the foregoing sales indicate that Berkshires of the Sunny Slope brand are in good demand.

Risk, Winn, and Lail's Sale.

Again Missouri comes to the front—or rather calls attention to the fact that she is still at the front—in the matter of hogs. Eastern breeders will be relieved to know that it is not another show. No; the occasion will be an exclusive one and none but show animals will be allowed in the ring—not to show but to sell. If any further guarantee is needed as to the quality of the offering it is found in the names of the consignors—J. S. Risk, W. N. Winn & Son, and F. M. Lail. These breeders have combined strong drafts from their respective herds, which they will put up at auction, January 11, in the fair grounds pavilion at Springfield, Ill. The hog world—and most of the general public—is familiar with the fact that these breeders have frequently found victory not only at Springfield but the other great shows, both east and west of the Mississippi, and a glance at their catalogue (sent only on application) reveals the names and the blood of the winning animals. Foremost among these stands Chief I Know, but following him closely come such hogs as L's Perfection; Ira Wilkes, the dam of famous high-priced litters; Black Beauty F., dam of Perfect I Know, bred to Chief I Know; Lady You Know, sweepstakes sow at Springfield, bred to L's Perfection; May Queen, the dam of the Illinois State fair winner in 1899, bred to Perfect I Know; Louise Corwin, dam of Perfect's Wonder, that won third in yearling class at the Illinois State fair; great U. S. Chief, sow Lady U. S. Chief, dam of the first prize litter at the Illinois State fair in 1897; Chief's Daughter, the first prize-winner at the Nebraska State fair in 1896. Both of the above sows are bred to the sweepstakes boar of 1899, I Am Perfection. Competent judges have pronounced the entire offering gilt-edged—which agrees with the expections of every breeder who knows the herds it comes from. Every suitable female sold will be bred to the greatest living boar available, so that the future of the young stuff is fraught with possibilities even greater than the realizations of the older hogs.

Frank D. Winn, the manager of the sale—see advertisement in this issue—has ready to send out on application a souvenir catalogue that, besides being a work of art, is a considerable compendium of Poland-China lore in general. It is a book worth getting and keeping. Drop Mr. Winn a card at 1500 Grand avenue, Kansas City, Mo.

A National Show of Shorthorns.

The Central Shorthorn Breeders' Association has decided to hold a national exhibition and combination sale of Shorthorn cattle at Kansas City, in accordance with the following resolution:

Resolved, That the Central Shorthorn Breeders' Association announces that it will hold a show and sale either the last wook in October or the first week in November, and that the number of cattle to be sold shall not exceed 150 head.

The number of cattle to be included in the combination sale is limited in order that only representative individual specimens of the breed shall be offered; however, the number entered for exhibition only is unlimited, the show and sale being open to the world. It is the earnest desire of the promoters of this enterprise that it shall be made the most successful and notable Shorthorn event in the history of Shorthorns in America.

The American Shorthorn Breeders' Association appropriates $5,000 in the way of premiums, and the Central Association expects to raise as much more. It will be observed that the dates for the show and sale will either precede or follow that of the Hereford show and sale. Both shows will constitute the greatest beef cattle display ever made.

It is to be hoped that Kansas may be strongly in evidence on that occasion, and therefore the Kansas Farmer suggests that right now is the time to begin preparations for the show and sale. Matters of importance concerning the show and sale will be considered at the tenth annual meeting of the Kansas Improved Stock Breeders' Association, to be held at Topeka January 8-10, 1900; also at the annual meeting of the Central Shorthorn Breeders' Association, to be held at Kansas City, Mo., February 6 and 7, 1900.

Guernsey Cattle Club.

The American Guernsey Cattle Club held its twenty-first annual meeting in New York, December 14, 1899. Among those present were: Ex-Governor W. D. Hoard, of Wisconsin; C. L. Hill, Rosendale, Wis.; James Logan Fisher, Philadelphia, and Ezra Michener, Cartersville, Pa.

Secretary William H. Caldwell, of Petersboro, N. Y., presented a report showing the work of the club for the year ending December 1 last. The club numbers 140 members, but there are between 700 and 800 breeders of Guernsey cattle in the United States who register their cattle. There are now about 12,000 Guernsey cattle in the United States. Much satisfaction was expressed at the meeting over the report of the official record of the butter test of the cow, Lilly Ella, belonging to James H. Berne, of Oakfield, Wis. During the year she produced 912 pounds of butter. This, it is said, surpasses any official test ever conducted in any country.

James M. Codman, of Brookline, Mass., was re-elected president of the club, and Sydney Fisher, of Knowlton, Quebec, was re-elected as one of the two vice-presidents. The other vice-president, Levi P. Morton, retired and A. J. Cassatt, of Pennsylvania, was chosen to succeed him. Mr. Caldwell was re-elected secretary and treasurer, and Francis Shaw, of Wayland, Mass., was re-elected to the executive committee.

Th club adjourned to meet again in May, 1901. The constitution was amended so that the annual meeting should be held in May instead of December, and it was thought best to omit the meeting next year.

The Snoddy Cholera Remedy.

If any reader of this paper has a herd of swine affected with cholera, he should not hesitate or delay in giving the Snoddy remedy a trial, as it is the only remedy now advertised, as far as we know, that has won on its merits of actually curing hogs that are affected. A recent letter from the Dr. J. H. Snoddy Remedy Company, of Alton, Ill., says: "We are the only firm who comes fully up to our claims. We are also the only firm that goes right into the pen where hogs are sick and dying and restore them to perfect health and thrift. No other hog-cholera man will risk his remedy in such a test, but it is our delight to do that. It does seem that papers should give information in such a manner that their readers will have confidence in what they say about it."

Galloways Sell Well.

The public sale of Galloways by J. M. and J. R. Lowe, at their farm, Lowood, near Blue Springs, Mo., on December 14 and 15, was attended by buyers from 6 States, and the sale was a success considering the stormy weather and the fact that the sale was held at the farm, and the cattle sold in breeding condition, not one having been groomed or handled any.

The highest price was $825, paid by I. B. and A. M. Thompson, of Nashua, Mo., for Highland Mary 7th, the heifer given by Mr. Lowe to the Convention Hall of Kansas City.

One hundred and twenty head were sold at an average of $167. This included a number of young stuff not yet a year old. The principal buyers were: Alfred Labreche, of Jefferson, S. D.; T. H. Overpeck, of Catlin, Ind.; O. H. Swigart, of Champaign, Ill.; A. Rowland & Son, of Rose H..., Iowa; Dean Bartlett, of St. Marys, Kans.; I. B. and A. M. Thompson, of Nashua, Mo.; M. V. Dillingham, of Blue Springs, Mo.; John H. Carpenter, of Eldorado, Kans.; S. A. Puterbaugh, of Kidder, Mo.; H. and C. S. Siegest, of Lenexa, Kans.; John Fink, of Downs, Kans.

Mr. Lowe has some 75 head left and will continue to handle Galloways at his farm. The herd will be managed by Mr. J. R. Lowe, who is a thorough cattleman.

Considering the fact that the sale was advertised less than a month and is the first Galloway sale for a number of years, it was satisfactory to the owner.

Bloating after eating, indigestion, flatulence or water brash, may be quickly corrected through the use of PRICKLY ASH BITTERS. It strengthens digestion, cleanses and regulates the bowels.

THE STRAY LIST.

FOR WEEK ENDING DECEMBER 7, 1899.

Montgomery County—D. S. James, Clerk.

COW—Taken up by J. H. Etter, in Louisburg tp, (P. O. Elk City), November 18, 1899, one red cow, 8 years old; valued at $15.

CALF—By same, one spotted bull calf, 3 months old; valued at $5.

Greenwood County—Perry Clemans, Clerk.

STEER—Taken up by F. B. Stuber, in Fall River tp., one yearling steer, pale red, white face, white spot over shoulder, branded (not plain, 4, X, or H) on left hip and a straight mark on left side; valued at $25.

FOR WEEK ENDING DEC. 14, 1899.

Butler County—S. G. Pottle, Clerk.

STEER CALF—Taken up by J. A. Surpless, in Rosalia tp., (P. O. Rosalia), October 31, 1899, one red and white spotted steer calf, (last spring s); valued at $16 to $17.

Elk County—J. A. Benson, Clerk.

STEER—Taken up by James Moore, (P. O. Piedmont), November 3, 1899, one red and white 2-year-old steer, branded "L" on left hip, and "U" on right jaw; valued at $20.

Osage County—Wm. H. Thomas, Clerk.

HEIFER—Taken up by W. H. Peard, in Olivet tp., (P. O Olivet), November 23, 1899, one roan heifer, weight about 500 pounds; valued at $12.

Coffey County—Dan K. Swearingen, Clerk.

MULE—Taken up by E. L. Shepley, in Pleasant tp., (P. O. Barry), November 13, 1899, one brown mare mule, 4 years old, weight about 1,000 pounds, unbroken; valued at $30.

Franklin County—J. A. Davenport Jr., Clerk.

COW—Taken up by W. M. Finch, in Harrison tp., (P O. Ottawa), one red and white spotted cow, about 8 years old, smooth crop and slit in right ear, underbit in left ear; valued at $20.

FOR WEEK ENDING DEC. 21, 1899.

Wilson County—C. W. Isham, Clerk.

YEARLINGS—Taken up by J. A. Lamar in Talleyrand tp., November 15, 1899, three yearlings (females), two red, valued at $24; one black valued at $12.

Kingman County—C. R. Furrow, Clerk.

MARE—Taken up by M. F. Dew in Richland tp. (P. O. Rago), December 4, 1899, one heavy-set black mare, front feet white, right hind foot white, blaze face, about 10 years old; valued at $25. Also, one bay horse, about 10 years old, hind leg cut with wire; valued at $5.

Coffey County—Dan K. Swearingen, Clerk.

BULL—Taken up by J. W. Young in California tp. (P. O. Strawn), November 1, 1899, one red bull, 1 year old. with under bit in right ear; valued at $20.

The Home Circle.

SPIRITS FOUR.

Spirits four my door have passed,
  Each a perfect work has wrought,
E'en through seeming ill, at last
  Each some blessedness has brought.
One looked in with laughing eyes,
  Shook her tresses crowned with flowers,
Bluer grew the April skies,
  Softly fell the April showers.

On her red lips clung the bees,
  In her foot-prints snow drops sprung,
Green leaves clothed the naked trees,
  Round their nests the robins sung.
But the grey, translucent rain
  Hid her in a veil of light
And the children called in vain
  As she vanished from their sight.

Slow the next with languid feet
  Through the yellow wheat-fields came,
Down the dusty roads the heat
  Trembled like a lambent flame.
Lilies bloomed where o'er the pool
  Fringed with flags the rushes bent,
And the cows in shadows cool
  Chewed their cuds in dumb content.

Where the fragrant swaths were spread
  Sweet the wind blew from the west,
And the clover clustering red
  Hid the lark upon her nest.
O'er the hill-tops scorched and brown
  Vanished she in haze, while borne
On the flying thistle down,
  Laughed the third among the corn.

Through her thick locks tossed and blown,
  Twined with scarlet ivy vine,
Mockingly her dark eyes shone,
  Ruddy was her mouth with wine.
Where the golden beeches burned
  Wandering huntsmen heard her call,
Saw her shy face backward turned
  As she watched the ripe nuts fall.

But the dim, warm days grew cold,
  And the last pale flowers were dead,
Earth seemed weary grown and old,
  And she with the swallow fled.
Came the last at dead of night,
  O'er her path the tempest beat,
Wrapped in cerements of white,
  Walking in her winding sheet.

Pallid were her lips and dumb,
  And the bitter snow and sleet
Falling from her fingers numb,
  Drifted high about her feet.
But on cheery hearthstones warm
  Brighter blazed the crackling fire
While without the wrathful storm
  Raged and shrieked in baffled ire.

And with generous comfort blest
  Hearts found peace; like angels good,
Love, untroubled faith, and rest
  Watching at the threshold stood.
Spirits four my door have passed,
  Each its perfect work has wrought,
E'en through seeming ill, at last
  Each some blessedness has brought.

—Mary H. Krout.

WAR MONEY, AND HOW ENGLAND RAISES IT.

BY MARSHALL LORD, LONDON, ENGLAND.

It is an interesting fact that the English people will not know until 1901 how much of their money it cost to soak the tip of Africa in blood. The $50,000,000 that Parliament voted offhand at the beginning of the Transvaal war was thought to be enough to last until March in the ordinary course of events, and if it wasn't—why then there was plenty more coming from somewhere or other, and if the Boers were not wiped out by March it was all the same, so far as money was concerned.

The other night, the Marquis of Lansdowne, secretary of state for war, was giving an address. He observed that the accumulation of arms and ammunition by the Boers before the war was declared, had made it necessary to increase the British garrison in South Africa at an extra expense of $2,000,000, and ——"

Just then the speech was interrupted by a voice from the audience shouting, "What does it matter?"

And that interruption tells the story. The man who made it spoke for the great middle class of the English people—usually so careful of their pennies. Where does all the money come from? And how is it spent? Although the general public doesn't know and merely says, "What does it matter?" I supposed Government officials could answer the question for me in detail. Oddly enough they couldn't. Nobody knows just yet where the actual cost is to come from, or how the whole of it is being spent. It isn't as if the old war chest were in business yet.

THE ANCIENT WAR CHEST.

Once upon a time there was really a war chest—an actual, literal, war chest. Kings of England respected the demands of that chest to a greater extent than they were wont to respect the requirements of a good many other deserving institutions, and all the gold pieces that they felt they could spare from their own pet enterprises they dropped into it as a child puts pennies in his little tin bank.

Government officials say when I ask them half seriously if the war chest is to-day hidden away in some burglar-proof vault, that no such thing now exists, that in these days of blue books and public reports that any one can buy for a cent, there is no chance for any such secret fund. Germany, however, is popularly supposed to have a strongly guarded war chest, and so, it is believed, has Italy and Austria. Indeed, Robert Barr grouped a deal of the plot of his novel, "Jennie Baxter, Journalist," about the supposed looting of the Austrian war chest.

Of course, England's war chest had, for a long time after its retirement, an ante-type in the shape of an imposing war fund, but that was in its turn demolished in 1792 by Pitt in his scheme for the consolidated fund, and it is upon this consolidated fund that England is drawing for her present occupation of conducting a campaign in the Transvaal. As for the consolidated fund, it is nothing more or less than the receipts of the Government, minus its expenses, and it was William Pitt who decided, instead of keeping track of a score of separate funds, to lump the whole lot of them together and to allow expenditures to be made only by act of Parliament.

THE TREASURY CHEST FUND.

So to-day there is only one reminder of the ancient war chest, so coddled by Britain's rulers, and that is an entry on the books of the Bank of England, crediting Her Majesty's Government with $3,750,000, to be used for foreign expenses, and known as the treasury chest fund. This name is an echo of the olden days when every war expedition that left England carried with it a veritable "chest" packed with gold pieces for the payment of the army, and it is enterprises, usually of a peaceful nature, in distant portions of Great Britain's domains. This treasury chest fund is always kept at the same figure. For instance, upon the representative of Her Majesty's Government being advised of any needed improvement coming within his administration and involving heavy expenditure, he invites tenders of capital, accepting the most favorable and issuing bills on the treasury chest fund. Upon their presentation at the Bank of England they are audited and promptly paid, when the treasury chest fund's accountants straightway make requisition for the amount of the expenditure upon either the war office or the admiralty, accordingly as the expenses incurred have been on account of the army or navy. To each of these two great Government services a sum in the neighborhood of $125,000,000 is allotted annually, but the coming of the war with the Boers was, of course, immediately followed by a parliamentary grant of $50,000,000 to be spent in crushing the rebellion, exactly what the United States Congress voted to fight Spain.

I was informed by a high Government official that the present sum voted by Parliament was regarded as little more than a flea bite, and is expected to last until the 31st of March, by which time they hope that the war will have been fought and won by Great Britain. He stated that the last Boer war cost England just $25,000,000. "This one will cost more," he said, "because we are trusting to do the work a little better."

THE COST OF THE PRESENT WAR.

"Of course you know," he went on, "how the present appropriation from the consolidated fund is to be reclaimed. According to a statement of the chancellor of the exchequer, the excess in the receipts of the Government over the anticipated expenses as shown in the last budget will supply $15,000,000 out of the $55,000,000 which have been appropriated, and the other $40,000,000 will be accumulated by the negotiations of small loans. However, this war is only a petty affair. In the event of a great war, the $30,000,000 which England devotes annually to the payment of the interest on her national debt would be left unpaid, and a new debt contracted, the amount of which would be equal to that upon which $30,000,000 would pay the annual interest."

"What, then, has been the cost of the present war up to date?"

"Nobody knows. No one will know, either, until the spring of 1901—that is, accurately. Not until that time will it be possible to gather together the disbursements of each of the multitude of different departments. Now you might be able to guess at the amount of each one of those, but the sum total is a matter for the future alone."

Sir Michael Hicks-Beach, the man who is paying for this war—just as the Marquis of Lansdowne is the man who is running it and the Hon. Joseph Chamberlain the man who caused it—is the least known of any important public official in England. He is retiring by disposition, never submits to an interview, has not been photographed for twenty years, and his only well-known characteristic is a tendency to wear wretchedly-cut clothes. While Parliament is sitting he may be in his office in the treasury building in Whitehall twice a weeq; when Parliament is not in session he is seldom there at all, but either at his London house or his country place, Netherhaven House, in Salisbury, he manages to keep two alert private secretaries fearfully busy and has another stationed at the treasury to have an eye on things there. On the rare occasions when he honors the big building in Whitehall with a visit, he drives down in his carriage and makes a bee-line for his office, which is known as the board room, so that out of the 120 clerks that add, subtract, multiply and divide in this ungainly bee-hive, probably not more than ten or twenty ever have seen the chancellor of exchequer. Two of these favored few are of course the treasury messengers who are constantly kept on the trot between the Government bookkeepers and financiers and their chief wherever he may be, with all kinds of documents for his signature, or questions for his decision.

His office of chancellor of the exchequer corresponds almost exactly to that of Secretary of the Treasury in the United States.

Arthur Balfour is, of course, the first of the five lords of the treasury with a capital, and the other four are mere figureheads at best. But the real national financier is Sir Michael Hicks-Beach. He it is who, when an emergency arises—like the present one—is in for the not too easy task of finding the best way to meet it.

The chancellor has only recently recovered from a serious illness that was bothering him just about the time when the necessity of spending $50,000,000 in killing people made its appearance, and the questions which are fired at him several dozen times a day are alone enough to drive a nervous man distracted, but Sir Michael Hicks-Beach is not, if treasury people are to be believed, at all ruffled by his sense of responsibility—coolness has always been one of his characteristics—but goes on from day to day signing for transports and reinforcements and ammunition and mules with apparently as little unconcern as if England started a new war every day in the week. As for the other treasury employees, as has been said, that portion of them detailed to keep tabs on the war office in its wild career of expenditure are rather pressed for time but otherwise business goes along in the treasury just about as usual, which means in a thoroughly dignified manner, unmarred by improper haste.

NO BOTHER ABOUT MONEY.

When Parliament was summoned to an extraordinary session in the last days of October, its members were made to understand that their business was to appropriate funds for a war which one Kruger had forced England into waging, and they promptly made those appropriations without waiting to hear if the country could afford the luxury of a war or not. If that unhesitating action might be interpreted as a delicate compliment to the sagacity of the chancellor of the exchequer, it was fully justified, for Sir Michael Hicks-Beach has a plan.

To begin with, an unusually prosperous season helped him. In estimating, at the beginning of the fiscal year, on the probable receipts and disbursements of the Government during its course, the chancellor chose not to err on the side of optimism—consequently his balance-sheet shows a surplus of $15,000,000, which can immediately be utilized for war purposes. As for the balance of $35,000,000 still to be reclaimed, Sir Michael will depend on the issuance of treasury bills to the extent of $40,000,000—thus setting his figure $5,000,000 ahead of actual requirements, to allow for miscalculations. He has no idea, however, of placing so large an amount of treasury bills on the market at once, but will issue them only as occasion demands. Considerable sums have also been promised him by the commissioners for the redemption of the national debt—to be taken from the resources in their hands belonging to the savings banks deposits. Through this course of action any disturbance of the money market will be avoided.

No less than 3 other plans of financial campaign have, however, suggested themselves to the chancellor. They were, a possible suspension of the payment of the national debt; the addition of a penny or of 2 pence to the income tax, and an increase in the subjects of imports on which a duty is charged. What renders all 3 of these suggestions impracticable is the fact that seven months of the parliamentary year—which begins in April—already have passed. The suspension of payment on the national debt for the five remaining months would, financiers have advised the chancellor, be almost barren of results. As for the income tax, it has been made plain that while Sir Michael believes that the people affected by this tax—all those whose incomes are $800 or over—should pay their share, and possibly a heavy share, of the war expenses; still he is convinced that to increase the nation's resources by an addition to this tax alone would be emphatically unfair and inequitable. It is likewise clear that in the event of an increase in the subjects of indirect taxation for so short a time would simply defeat its own ends, for the reason that the persons dealing in the dutiable commodities would reduce their purchases to the lowest point possible—so that the customs receipts on those subjects might fall short of what they are at present, to say nothing of netting an appreciable increase.

THE QUESTION OF PAYMENT.

Although the men who are looking after the finances of the British nation

(Continued on page 12.)

Housework is Hard Work

without Gold Dust. It lightens the labor of cleaning more than half and saves both time and money. It is "Woman's Best Friend, Dirt's Worst Enemy."

Send for free booklet—"Golden Rules for Housework."

THE N. K. FAIRBANK COMPANY
Chicago St. Louis New York Boston

Brass Band

Instruments, Drums, Uniforms & Supplies. Write for catalog, 445 illustrations. FREE; it gives Music and Instructions for New Bands.
LYON & HEALY,
26 Adams St., CHICAGO.

GEARHART'S IMPROVED KNITTER
WITH RIBBING ATTACHMENT.

Knits everything, from homespun or factory yarns, equal to hand knitting. Cheap, Practical, Simple. Illustrated instruction teaches you all about it. Only machine made with RIBBING ATTACHMENT. Ahead of all competitors. Satisfaction guaranteed. Money for agents. Plain and ribbed samples free. Address,
J. E. GEARHART, A-5 CLEARFIELD, PA.

FREE Our NEW Illustrated Catalogue of MUSICAL INSTRUMENTS will be sent on application to any address.
THE W. F. ROEHR MUSIC CO.,
TOPEKA, KANSAS.

Mothers! Mothers!! Mothers!!!
MRS. WINSLOW'S SOOTHING SYRUP has been used for over FIFTY YEARS by MILLIONS OF MOTHERS for their CHILDREN while TEETHING, with PERFECT SUCCESS. IT SOOTHES the CHILD, SOFTENS the GUMS, ALLAYS all PAIN; CURES WIND COLIC, and is the best remedy for DIARRHŒA. Sold by druggists in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.

The Young Folks.

ONE BY ONE.

One by one the sands are flowing,
One by one the moments fall;
Some are coming, some are going,
Do not strive to grasp them all.

One by one thy duties wait thee,
Let thy whole strength go to each;
Let no future dreams elate thee,
Learn thou first what those can teach.

One by one (bright gifts of Heaven),
Joys are sent thee here below;
Take them readily when given,
Ready, too, to let them go.

One by one thy griefs shall meet thee,
Do not fear an armed band;
One will fade as others greet thee,
Shadows passing through the land.

Do not look at life's long sorrow;
See how small each moment's pain;
God will help thee for to-morrow,
So each day begin again.

Every hour that fleets so slowly
Has its task to do, or bear;
Luminous the crown and holy,
When each gem is kept with care.

Do not linger with regretting
Or for passing hours despond;
Nor, the daily toil forgetting,
Look too eagerly beyond.

Hours are golden links, God's token
Reaching Heaven; but one by one
Take them, lest the chain be broken
Ere the pilgrimage be done.

—Adelaide Anne Proctor.

VENICE.

BY ANNA MARIE NELLIS.

NUMBER 80.

No traveler, probably, ever goes to Italy with the intention of avoiding two of its cities which have been connected with the world's history for very many centuries. Rome and Venice are the two points toward which every tourist ardently and eagerly directs his way. Rome, the "Eternal City," the illustrious three thousand years ago, was to be left out of our program, much to my disappointment. It was not the best time of year to visit it, as fevers are prevalent in August, and besides the distance was too great to travel there in the time we had set apart for our summer's visit.

But Venice we were about to see, and we knew that no other city in the world is like it—the city of Saint Shylock, whose name often crops out in the rocky strata of American politics, the city of Portia, Antonio, Bassanio, and other Shakespearean characters, the city of water, the city of gondolas, the city of music, the city of—well, Venice! No other can compare with it.

Do do not all people, generally, think of Italy, and Venice, as being far to the southward; so far south as to be in a tropical climate? I was surprised, on looking at my map, to find that it is nearer the North Pole than St. Paul and Minneapolis, in the State of Minnesota. Topeka and Kansas City are about 300 miles nearer the equator than Venice.

A lovely railway journey eastward from Padua 23 miles brought us to the Gulf of Venice. To see the beautiful city of Venice has always been one of my greatest desires, and when it was scheduled for our summer's tour I was delighted, and my delight was greater when our train seemed to roll into the very Adriatic Sea. My only worry was from the fear that the train would fall over the track into the water. As I looked out of the window I could see only water on either side; but soon, in the distance, the shining domes and steeples of the beautiful city appeared to our view.

From the mainland to the station in the city is a distance of nearly two miles, and the train is brouhgt over a railway built on piles driven into the bottom of the shallow lagoon, which is an extension of the Gulf of Venice.

As we crossed over the water it was almost sunset, and the slanting rays of light shone on the towers and palaces in front of us, giving them the appearance of a magic city.

Arriving at the station, our first thought was to get a cab to take us and our luggage to our rooms which we hoped to get. While in one of the museums at Munich we had met an American lady, who with her daughters had just come from Venice. Learning that we were on our way thither, she gave us the address of a family in whose home she had staid a week, and found it and them most agreeable.

Did we find a lot of cabmen shouting their invitations? No, for in the whole city there is no horse, nor other domestic animal, except cats. No other city in the world can equal that condition. We passed through the station and found ourselves on the main street of Venice—the Grand Canal; and here were about 40 gondolas, each awaiting its turn, the same as a lot of carriages with their drivers would do in Kansas City.

A policeman, or railway guard on duty, called a gondola for us; our baggage was quickly transferred to the bottom of the boat, and we in the center under a canopy. Our "driver" stood up at the stern of the boat, and soon he was rowing us down the Grand Canal.

If one has enjoyed the advantage of a spring freshet flooding a city located near a raging stream, such one may imagine the appearance of Venice without going to Italy to see it. The water fills every street and alley, and the front door of every house we saw opens on the canal or one of its branches. Unlike in other cities, where the rumbling of wheels and noise of traffic confuse the stranger, here in Venice there is no sound except the voices of the gondoliers and the gentle splashing of the water against the side of the boat.

All the gondolas are black in color, and I asked our man why it was so. He said that many years ago it was decreed by law that they should be black and they are still black, and that was all he knew about it. But our water-man was communicative, and as we passed along he pointed out the places of interest—the palaces and churches—and told us all he knew about them.

I had read somewhere about the Rialto bridge, and of course I was anxious to get a view of it. Our route was directly under it, and when we came near I felt a great disappointment. It was very unhandsome in appearance as we saw it from the water. Architecturally, of course, it is a wonder. Its main arch is of marble, and spans 74 feet, and is 32 feet high in the center, about the water. The bridge rests on 12,000 piles. I didn't count them, of course, but our driver said so. In all, the bridge is 158 feet long and 90 feet wide. The unpleasant feature of the bridge is seen only from the water, and is the boarded framework of the shops and stores on the bridge, above the marble part. It is unpainted and appears quite shabby.

We passed under the Rialto bridge and our attention was attracted by more pleasing sights; Saint Mark's cathedral, and the Doges' palace near it, were beautiful objects which would surely please any visitor. We had told our boatman to drive us to the first house "this side" of the Santa Marie della Salute church, for there is where we hoped to get the rooms which had been recommended to us; and within a half-mile from the ducal palace our boat was made fast to the front steps of the house desired. With my Italian dictionary in hand, I entered, leaving the rest of our party waiting. I found the lady of the house, and was able to tell our wants, and give our reference the lady who had stopped there a week before. We were happy to find the rooms unoccupied and at our disposal, besides the woman seemed to be a pleasant body and we knew we should like her well. We soon had our light baggage transferred to our rooms on the first floor, and were delighted to see that the windows were on the side toward the Grand Canal.

We learned from our landlady that the house had been originally built as cloisters for the grand old church to which it is attached; that for many years it had been the "palace" of one of the Foscari ducal family, but that now it was occupied by common people who had only these two rooms, overlooking the canal, which they rented to tourists. When you go to Venice be sure to get these rooms, for you will like them, as we did. They are directly opposite the Grand Hotel, the largest and finest hotel in Venice; besides, let me whisper, they would not cost you but a fraction of what you would have to pay for rooms in the hotel opposite.

MOONSHINE.

After a short rest, and dinner, it was already evening. The moon was up and shining on the Grand Canal. Moonlight in Venice has been described in poetry and song for centuries. It can best be enjoyed from a gondola, and the early evening found us comfortably seated in a boat with dozens of other boats near us, all ladened with happy-looking people. Between 9 and 12 o'clock at night, as we found afterward, the canal is almost covered with people who are out for real enjoyment, and to hear the music that is never lacking.

Each gondola must be furnished with a light, which usually is a small lantern with colored glass. But here comes the music boat. It has many pretty Chinese lanterns hung above the heads of the musicians. It anchors in the middle of the canal and soon the gondolas are massed against it until the water is entirely covered at least a hundred feet above and below it, and we all lean back in the cushions and listen to the loveliest music we ever heard. There were soloists, accompanied by choruses, and an orchestra of eight or ten instruments.

The moonlight, together with the thousands of lights from the Grand Hotel and the fine houses on either side of the canal, and the little lights from the many boats, all combined to make as charming a picture as one can possibly imagine. The music floating over the water lent enchantment, so that one forgets there is anything disagreeable in this whole world of ours. But we are awakened to the realities of life, after the third or fourth installment of music, by a very matter-of-fact proceeding. One of the musicians passes a tambourine for voluntary contributions. It was interesting to see him pass from boat to boat without missing a step, but that was easily done, for the boats are jammed together, making a continuous platform, or rather a pontoon bridge.

After listening for a half-hour we had our gondolier row us in turn to the Hotel Roma, Hotel Britannia, Hotel Europa, and finally in front of the Doges' palace. At each point we found a music boat and crowds of people listening. We glided along to where the canal opens into the bay, and here we saw some of the large seagoing vessels, and they looked very pretty, indeed, in the beautiful moonlight. To us in the small gondola these ships appeared like huge monsters, but we learned that the bay is so shallow that only the lighter vessels can come very near the canal. The larger ones must anchor out 15 miles, where the water is deeper. Our gondolier pointed out one which he said left every night at 23 o'clock and arrived in Trieste, across the Adriatic Sea, at 6 o'clock in the morning, so we learned that the distance across is seven hours.

We then rowed back to St. Mark's Place, and opposite the palace, and listened to some more of the entrancing music, until awakened from the beautiful dream by the voice of the gondolier asking: "Where would Signorita like to be taken to next?" Just then the chimes of St. Mark announced 24 o'clock, and we decided that midnight was a proper time to be at home, and we went.

Although it was late, the serenaders were still on the canal. We could not think of retiring, although we were very tired. We sat in the deep windows for another hour listening. They sang the "Angels Serenade," and I could have thought it quite "echt" if the bass viol had not been playing an accompaniment in a different key from the obligato, which also was not tuned to the soprano; but that mattered little, for this was Venice.

But if we would inspect the city on the morrow, we must rest; so we retired and were lulled to sleep by the lovely strains of music from off the Venetian canal.

ST. MARK'S PLACE.

On awakening the next morning I found the sunlight shining in our rooms. I lazily looked at my watch, thinking perhaps it might be 5 a. m., and was astonished to find it almost 10. I sounded the reveille to awaken the rest, and soon we were ready to begin our first day in Venice. It seemed so strange not to be awakened by the clanging of street-car bells and the rumbling of wagon-wheels over rough pavement, but the only sounds were the calling of the gondoliers and the buzz of the little steamer on the Grand Canal.

Of course our first goal was the very heart of Venice—St. Mark's Place. The distance from our house to that point was but short, by the canal, and we could have been rowed there in five minutes. We concluded to walk, and to get there we had to wander around nearly two miles through the narrow streets, which are only wide enough for a footpath, and narrow at that. We must go a long distance to find a bridge to cross one of the side streets, then back again to within 20 feet of the starting point, having crossed the waterway.

The houses along our path are built three and four stories high, and the narrow path between the rows of buildings is seldom over 4 feet wide. The buildings themselves look so beautifully old and interesting, as well as decidedly dirty. The shops occupy the ground floor and the upper stories are used for dwellings. But the women all looked so pretty—not dressed prettily nor artistically, but their big black eyes, offset by their olive skin, bright red lips and beautiful hair, gave them a very charming appearance. Their jet black hair is always dressed artistically, usually in a large pompadour, and decorated with much jewelry. The older women show a preference for long, gold neckchains and immense gold, or imitation, earrings.

Finger-rings do not seem to be popular with them, but they usually have heavy bracelets and in hand the never-failing fan; no matter how young or old, all have fans, which they handle very coquettishly. The poorer people along our route wore wooden shoes, not heavy ones, as in Germany, Denmark and Sweden, but pretty pointed ones with leather tips. Another peculiarity (to us) was the long black cashmere shawls with deep fringe worn by nearly every woman we saw. The women were all hatless, but used the fan for a sunshade when necessary.

The men were not so interesting, being too "dago-like" to suit my fancy, and all the old ones wore big rings in their ears. We had leisurely examined the shops on our way, noted the peculiarities of the women and men; and now we had arrived at St. Mark's Place, where we breakfasted at 11 o'clock.

The Topeka Business College
LEADING SCHOOL OF BUSINESS, SHORTHAND, PENMANSHIP & TELEGRAPHY
Large School. Reasonable Rates. Good Positions. Catalogue Free. Address L. H. Strickler, Topeka, Kans.

Wichita Commercial College.
Write for Journal-E. H. Robins, Pres.

KANSAS FARMER

ESTABLISHED IN 1863.

Published Every Thursday by the

KANSAS FARMER COMPANY.

E. B. Cowgill, Pres. J. B. McAfee, Vice Pres.
D. C. Nellis, Sec'y and Treas.

OFFICE:
No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

E. B. COWGILL, Editor.
H. A. HEATH, Advertising Manager.

ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch).

Special reading notices, 25 cents per line.

Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of $5.00 per line for one year.

Annual cards in the **Breeders' Directory**, consisting of four lines or less, for $16.00 per year, including a copy of KANSAS FARMER free.

Electros must have metal base.

Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

☞ All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper free during the publication of the advertisement.

Address all orders—

KANSAS FARMER CO., Topeka, Kans.

The brisk rise in the price of wheat at the beginning of the present week is by the experts attributed to the serious aspects of the war in South Africa.

The thirty-second annual meeting of the Kansas Academy of Science will be held at McPherson, December 28, 29, and 30. An unusually attractive program is presented.

The Secretary of the Treasury has announced that to relieve the strain upon the money supply he will deposit a large number of the treasury's hoarded millions in national banks.

At a convention of manufacturing lumbermen at St. Louis last week the fact came out that export trade in lumber is good. The world's accute shortage of timber is becoming more apparent every year.

The biggest kind of a Shorthorn show and sale is to be held at Kansas City about the last of October, 1900. The prospects are so great that the management finds it necessary to announce at this early date that the number of animals which any one exhibitor will be allowed to sell will be limited to 150.

The thirty-third annual meeting of the Kansas State Horticultural Society will be held in the rooms of the society, on the ground floor, east side, in the north wing of the State capitol, Topeka, on Wednesday, Thursday, and Friday, December 27, 28, and 29, 1899. An attractive program has been prepared. The usual holiday rates on the railroads will enable all to attend at greatly reduced expense.

A noted and persistent horsethief, who had fallen into the hands of officers of the law at Kansas City last week and against whom punishment had been decreed, was given his liberty and escaped punishment on condition of leaving Missouri before 6 o'clock on the day of the court's finding. Fifteen minutes would place him over the Kansas line where the thefts could be continued and where the court's travesty might be repeated.

Last Monday was a panicky day in Wall street. One trust company failed with liabilities over $11,000,000. Whispers of other concerns in shaky condition were freely indulged, and their danger was even shouted on the exchanges. Money commanded almost any interest. As high as 125 per cent was paid. Share prices tumbled and with them fortunes of unlucky holders. Interest rates in London are phenomenally high. Every financial center in Europe is suffering spasms.

STATE MEETINGS IN JANUARY, 1900.

The week of January 8-13, 1900, will be an eventful one for all Kansas because of the important State conventions to be held at Topeka.

The State Poultry Show will have an exhibition lasting the entire week. Mr. J. W. F. Hughes, secretary, Topeka.

The Kansas Improved Stock Breeders' Association will hold its tenth annual meeting January 8, 9, 10, beginning the evening of the 8th. This is the most important meeting in its history because of the business coming up for consideration. It will be a meeting not only for breeders but stock-feeders as well. A number of notables have agreed to be present, including the presidents of the leading national breeders' associations; also Dr. D. E. Salmon, chief U. S. Bureau of Animal Industry. For programs and other information address Secretary H. A. Heath, Topeka.

On January 9 and 10, 1900, the Kansas State Temperance Union will hold its annual convention at Topeka. Mr. T. E. Stephens, secretary, Topeka.

The annual meeting of the Kansas State Board of Agriculture will convene at Representative Hall, Topeka, on the evening of January 10, at the close of the breeders' meeting, and continue over until the evening of January 12. For programs address F.D.Coburn, secretary.

There will be excursion rates on all Kansas railroads from all points in Kansas.

SERIOUS IN SOUTH AFRICA.

The chronicler who may have written a correct review of the aspects of Great Britain's war in South Africa as they had developed two weeks ago, and who might now undertake to harmonize that review with the present situation, would find that he had undertaken an impossible task. Such reverses as have overtaken British arms at the hands of the soldiers of the small South African Republic and the Orange Free State have astonished the world and have caused the greatest consternation in England. Generals and armies which had been thought invincible have marched in rapid succession to three defeats, each of which was little less than catastrophe.

Whatever may have been the stake for which Britain at first fought, she is fighting for a greater stake now. Her position as a leading power in the world is to be decided by the issues of the present war. Little glory can she get out of whipping two little countries whose aggregate population is less than that of the smallest county in England; whose entire male population is less than the number of soldiers that may be quickly brought to the contest from any one of several of England's provinces. But great ignominy can England get if she fail to conquer so insignificant a foe. And should she conquer, she will be watched by jealous rivals as to the use she shall attempt to make of her victory. Other nations have interests in South Africa. Some of these are very near to the seat of the present war. To make British colonies of conquered territory in South Africa would be to assure British preponderance in that end of the dark continent. This would be strenuously opposed. While, therefore, defeat would bring immeasurable loss to Great Britain, victory will probably bring little gain.

But should the British lion fail to overcome so weak a foe his prestige will be gone. A revolt in India might easily occur. The pride of the colonies in British prowess would be greatly strained, and then loss of confidence in British protection might diminish their loyalty. Russia's ambitions have been held in check by England. A new map of Asia and an altered map of Europe might become necessary as a secondary result of British defeat in the Transvaal.

The present aspect presents a contest for the preservation of the British empire—a contest in which Britain's superb and costly navy is of no avail. But the stake is so great that there is no doubt but that treasure and men will be offered up freely and without limit.

Whatever may be the sympathy of individuals, whether given to the British, or to the Boers, a calm survey of the effects upon human progress as likely to be affected by the outcome of the war, shows every interest of the higher civilization as likely to suffer from British defeat and likely to be promoted by British triumph. The details of such a survey are intensely interesting, but their review would require more space than can be spared here.

It is doubtless safe to assume that whatever the embarrassment through which proud Albion may have to pass, the sturdy strength and persistance of the Anglo-Saxon will eventually triumph in the present contest. It is equally safe to say that should serious complications iater arise, John Bull will have a firm and powerful friend in Uncle Sam, who would snatch the torch of progress should it fall from the hand of the Briton, and while protecting his kinsman from indignity, force the march to the higher destinies of mankind.

No man can work well with a torpid liver or constipated bowels. A few doses of PRICKLY ASH BITTERS will quickly remove this condition and make work a pleasure.

FOR A KANSAS STATE FAIR.

The following plan has been proposed for the organization of a State fair to be held in Topeka, next September:

It is believed that it will be necessary to raise about $15,500. It is estimated that $8,000 will be required for buildings upon the grounds; $3,000 for rebuilding grand stand and $5,000 for the cattle sheds, sheep sheds, hog sheds, and horse stalls, and the cattle barn burned down. It is estimated that $2,500 should be used for expense of organization, advertising, and payment of secretary's salary. It will be necessary to employ some person as secretary who will give the matter his entire attention. Five thousand dollars should be raised and deposited as a guarantee for the prompt payment of premiums.

The county commissioners should rebuild the grand stand. They have collected $2,000 insurance on the old grand stand which was burned, and should put with this $2,000 about $1,000 more; it may be that this amount should be larger. The $2,500 or more in the hands of the committee for the reception of the 20th Kansas could be used for the organization and advertising fund. This would leave $10,000 to be raised otherwise. The money for erecting the necessary buildings should be raised by the citizens of Topeka, requiring the raising of $5,000 beside what the county would be called upon to put in under this plan. A corporation should be organized, $5,000 raised by stock subscriptions and certificates as hereinafter provided. The par value of the stock would be placed at $10, then each subscriber for stock could loan the corporation $10 for every share of stock subscribed, which should be evidenced by bonds or certificates and payable out of the first surplus existing after all liabilities after any meeting shall have been met. This feature is recommended to avoid the embarrassment of stockholders' liabilities. As long as a stockholder held one of these certificates he would have a set-off for all stockholders' liabilities. This stock should be subscribed by stockmen and exhibitors, including manufacturers, horticulturists, and others. Two hundred and fifty shares subscribed in this way would raise $5,000. The corporation should secure a written contract from the county commissioners permitting the erection of such buildings as are proposed, providing that the title and ownership of the same shall remain in the corporation with the right to remove. The corporation should then make a conveyance of the buildings to trustees to be held by them as security for the $7,500 raised by subscription. To each subscriber to the $5,000 fund should be issued a certificate or bond of the corporation, payable whenever the amount so raised was reimbursed by the legislature of the State of Kansas. This would make each holder of the $7,500 in bonds or certificates interested in having the enterprise eventually become backed by the State. It is believed that with good weather, the $5,000 fund would not be called upon. State fairs, by judicious management, barring bad weather, have during the last four years been financial successes.

Live Stock Inspection.

The fact that inspection and quarantine rules of both the State and nation are sometimes inadequate to prevent the introduction of Texas fever in some portions of Kansas, lends interest to the controversy now in progress as to the authority which may be exercised by Kansas inspectors. This authority has been seriously questioned in the interest of persons who object to the expense and possible delay of State inspection. They claim that the care taken by the Government is sufficient and that further inspection by the State is oppressive. To set out its powers in the premises the Kansas Live Stock Commission has made public the opinions of Attorney-General Godard and ex-Attorney-General Boyle.

Mr. Godard's opinion follows:

"Your communication requesting an opinion upon matters affecting your powers and duties, contains four questions, which will be answered in their order.

"1. 'Under the laws of Kansas, has the Kansas Live Stock Sanitary Commission the power to draft rules and regulations that will protect the health of the domestic animals in the State from disease; and in discharging its duties, can it impose restrictions upon animals shipped from other States into the State of Kansas and enforce the same?'

"In answer to this I will say that section 3 of chapter 142, Webb's Statutes, authorizes the board to establish, maintain, and enforce such quarantine, sanitary, and other regulations as it may deem necessary for the purpose of protecting the health of the domestic animals of the State of Kansas from contagious and infectious diseases of a malignant character. This is equivalent to empowering you to ascertain whether animals sought to be brought into the State are free from these diseases, and in case they are not, to prohibit their entrance.

"2. 'Has the Kansas Live Stock Sanitary Commission, or has it not, the power to stop cattle wishing to enter Kansas by railway trains or otherwise, for the purpose of inspecting them, when we have reason to believe that they are infectious animals?'

"You certainly have the power to do so in all cases where such animals are sought to be shipped into this State as a destination. Where they are merely to be shipped by rail through the State to market for slaughter, I do not understand that you deem it necessary to inspect them—and unless their passage through the State should endanger the health of domestic cattle they should not be inspected, or interfered with.

"3. 'Does this commission exceed the authority conferred upon it by statute in a provision set out in Bulletin No. 1, issued October 21, 1899, a copy of which is hereto attached, and do the statutes confer the power upon the commission to enforce the mandates therein set out?'

"Said provisions require that all cattle admitted into Kansas or the Kansas City stock yards, except for immediate slaughter, from south of a line described in the governor's proclamation of February 25, 1899, shall first be inspected and found free from ticks, etc., such inspection to be made by an agent appointed by this commission. I am of the opinion that your question No. 3 should be answered in the affirmative.

"4. 'Is or is not the State of Kansas a sovereign power in promulgating and enforcing its police regulations; and has the federal Government any right to interfere or set aside any of the orders emanating from this department, when the same does not conflict in any way with the orders issued by the Government department?"

"In reply to this question, I will say that 38 Kans. 550; 56 Kans. 694; 95 U. S. 465; 7 How. 283; 19 Wall. 581; 118 U. S. 218; and 169 U. S. 13 the rule is plain that in mere matters of police regulations, the State has full power to protect the life and health of its domestic animals. As said in U. S. 95, page 465, the police power of the State would 'justify the exclusion of property dangerous to the property of citizens of the State; for example, animals having dangerous or infectious diseases.'

"But it is expressly held in 56 Kans. 694 and 169 U. S. 613 that the act of Congress in 1884 in no wise conflicts with our statutes, but the object and intent was for them to coöperate concurrently. So, in fact, there can be no conflict in jurisdiction by Congress and by the legislature. The power of the State is in no wise sought to be curtailed by the act of Congress; on the contrary it invites coöperation on the part of the State in protecting the cattle of the State from infection or contagion."

Mr. Boyle, in answer to questions propounded by the Kansas Live Stock Sanitary Commission, first quoting section 3, chapter 142, compiled laws of 1897, said:

"It logically follows from the reading of this section that whenever your board deems it necessary for the protection of the health of the domestic animals of the State from infectious and contagious diseases of a malignant character, that you have the right to establish rules, regulations, or maintain a quarantine for that purpose. The law places the discretion within the judgment of the board when it is necessary to establish such rules, regulations, or quarantine.

"Having ascertained that your board has the authority to establish rules, regulations, or quarantine, we would next inquire under the law whether or not you have any power to enforce said rules, regulations, or quarantine; and, if so, whether the same can be enforced against cattle coming into the State in violation of said rules and regulations when they have no contagious or infectious diseases. Section 18, chapter 142, of the compiled laws of 1897, in my judgment, gives you full authority to enforce said rules, regulations, or quarantine, and said section also provides a penalty for the violation of such rules as you may have deemed fit to establish.

"As to whether or not the board has the right to make rules and regulations for any and all times of year concerning the introduction of Texas or southern cattle into the State, will say that section 3, chapter 142, was passed by the legislature subsequent to section 13, chapter 149, said section 3 giving you

the power to establish rules and regulations, or quarantine at any time during the season of the year when in your judgment the same is necessary to protect the health of the domestic animals of the State and wherein the latter law conflicts with the earlier law; if there be any conflict then the earlier law must give way to the later statute.

"Now, if your board has seen fit to make rules and regulations for the purpose of protecting the health of the domestic animals in the State from contagious and infectious diseases of a malignant character, during the entire year, there is no reason under the law, as it exists at the present time, why it should not be valid and binding. Neither is there any reason why any person violating said law should not be amenable to the penalties prescribed by the legislature.

"And with these facts in view, I desire to call your attention to the case of John Lauer vs. George Living, 24 Kans., page 273. The question arose whether or not under the statutes the board of county commissioners could make an order requiring cattle to be confined in the night-time during the entire year, and in reference to that the supreme court decided the petitioners might name any portion of the year; therefore, they might name the entire year. The length of time during which option and if they desired that it be option and if they desired that ti be operative during the entire year, there is no power in the courts to abridge their choice.

"Consequently the following rule laid down in the case just referred to by Justice Brewer, under section 3, chapter 142, you have the power, if you deem fit to exercise it, to make rules and regulations for bringing cattle into the State during the entire year and enforcing the same."

NATIONAL LIVE STOCK ASSOCIATION.

EDITOR KANSAS FARMER:—The first National Live Stock Convention of the 20th century, the third annual meeting of the National Live Stock Association, which is to convene in this city on January 16, gives every indication of being the most important gathering of live stock men and those interested in the various branches of the industry ever held in the United States.

These meetings are essentially business affairs. The leading authorities in the country on live stock subjects will be present to discuss these matters. On the other hand the feeders of the Northern and Central States take advantage of this occasion to meet the breeders of the South and contract for whatever stock they may require for spring delivery.

The various passenger associations have been exceedingly generous in the matter of rates for this occasion. The Western, Southwestern, and Colorado Railway Association has made a one-fare round trip rate with a twenty days' limit. This practically covers the entire country from Chicago to the Pacific Coast. The Central Traffic Association, from Chicago to Buffalo, has made a one and one-third rate from its territory. This action of the transportation companies indicates the importance of the meeting, as well as showing their desire to aid in its success.

From information so far received by the general committee, it is estimated that there will not be less than 5,000 delegates and visitors present on this occasion.

The work of selecting delegates to the National Live Stock Convention is already commenced, and for the information of stockmen generally is published the following general information as to who can be delegates:

Every State, Territorial, county, or other live stock association, whether sheep, cattle, horses, or swine, if a member of the association, is entitled to one delegate for every 10,000 head of stock represented, or fraction of that number. Such organization must first be a member of the association.

Each State board of agriculture and each agricultural college is entitled to one delegate, who must pay a fee of $2.50.

Each live stock commission exchange is entitled to one delegate-at-large and one delegate for each 25 members, provided said exchange is a member of the association.

Each stock yard company, if a member of the association, is entitled to one delegate.

Each railway and transportation company is entitled to one delegate, if a member of the association.

Each chamber of commerce is entitled to one delegate for every 100 members, if it is a member of the association.

Each dairyman's association, if a member of the national association, is entitled to one delegate.

Each State irrigation association is entitled to one delegate, if a member of the association.

The governor of each State and Territory may appoint three delegates-at-large, who shall each pay a fee of $2.50.

In counties where there are no stock organizations, the county commissioners may appoint one delegate, who must be a stockman and who must pay a fee of $2.50.

Only delegates are allowed to vote in the convention. Where any association member is not represented by the full number of delegates to which it is entitled, the delegates present may cast the full vote of such association, provided they have authority from the secretary of association so to do.

The delegates appearing as proxy for absent delegates must have written authority from such absent delegate so to act.

All live stock associations in the United States are entitled to membership in the national association by paying a membership fee of $10 and an annual sum of 25 cents per each 1,000 head of stock represented. Railway and transportation companies, stock yard companies, live stock exchanges, sanitary boards, and similar organizations may become members by paying the membership fee of $10 and an annual assessment of $2.50 for each delegate to the convention.

A. G. DAWSON,
C. F. MARTIN,
Committee.

Asks Questions.

EDITOR KANSAS FARMER:—I know of no better place to go and feel at home than to you and your contributors and readers to ask the hard and knotty questions of inexperience, which are so readily and correctly answered by your much esteemed paper. I feel that the time of cutting by guess and experimenting by the ordinary clodhopper and knockabout methods is past. When we want to find out anything we want to get light, and it can be had. Men are studying with brain, apparatus, and money to tell us, the callous-handed tillers of the soil, how to survive and to maintain moderate dignity among the complex scheming and lightning-running machinery of society. We need wisdom and light. We are told that "a bright boy of 12 to-day with all the richness of the past poured out to him in books knows, and ought to know, more than Martin Luther."

If he does not have the religious faith and determination, certainly his facilities are many times those of the reformer's. I believe it is the laudable ambition of the farmer, the feeder, and the fakir, to be bright and successful. To do good and communicate is one of the commandments with a twofold purpose, i. e., to make one better and the other wiser. In the multitude of council is wisdom. With these impressions I feel free to ask, and I hope it will make others free to answer. My questions are:

1. What benefit to the people is the Chicago board of trade, more than a gambling hole would be in every town? Successful operators tell us the bears have the safe side. Old Hutch and Leiter went high on the other side. Now, if a gambling game to pull down the price of the people's product by chicanery and skulduggery, and to fleece the venturesome, the eager-to-get-rich, and the simple-minded, is not a crime, tell me of its virtues. For example, November 28, 1899, hogs sold in Kansas City for $3.82, with a large shortage—50 cents higher than the year previous, which was higher than expected. But December pork sold the same day on board of trade for $8.02, $1.35 less than the year previous—hogs higher, pork lower, fresh meat higher—nigger somewhere. Again, November 28, 1899, same day, January pork sold for $9.47, $1.45 more than December pork. What a profit for holding one month! If fair to buy in December and sell in January, what a quick and easy way to make money, with "Heads up I win, tails up you lose." If we can interpret it that way to get rich, why not do it?

2. Since we have built a creamery and cheese factory we will need ice. How can we store it so as to keep it? I am told by a great many that we can't keep it? What is the precaution?

3. How can the refuse of a creamery be disposed of profitably, on good ground with a good slope, so as not to make a nuisance in town?

4. Is there not somewhere a market for good old fat horses that have outlived their usefulness for work but would be of value for meat to ship to the old world or to lovers of horse meat, and the hide used for our many needs? It seems as if such an institution could exist and be patronized. It would be a more humane ending for a faithful old horse than the ordinary practice of letting some shiftless fellow have it to starve, freeze, and abuse, and hurt the feelings of those who are merciful to the lower creation. C. H. TITUS.

Dwight, Kans.

Indian Creek Farmers' Institute.

The third annual Farmers' Institute at Indian Creek schoolhouse convened in the afternoon of Thursday, December 14, and continued through Friday and Friday evening. J. M. Pollum was presiding officer during the institute.

Thursday afternoon was given to the following three papers: "A Succession of Vegetables for the Farmer's Table," by Frank Rude.

"The Kansas Hog," by H. W. Cheney.

"The Farmer's Meat Barrel," by Amos Goodman.

In the evening, after a song entitled "The Independent Farmer," by the local quartet, Mrs. J. K. Walker read a paper on "The Poultry Yard." Mrs. Walker raises a good deal of poultry. Last year she raised between 400 and 500 chickens and now has about 100 hens. The family eat enough eggs and chickens to pay for the feed and she realized $163 for sales during the past year. She raises Black Langshans.

The question of good roads was taken up for discussion and it was made one of the most interesting parts on the program. All agreed that there is great need for improvement in the roads, and that something ought to be done in their township. Prof. R. W. Clothier, of Manhattan, said that the system must be changed before we can expect better roads. When one man works for a few days and then another follows a few days later we can not expect to improve the roads. The work should be let out to a contractor who has studied the business.

J. F. Cecil held that our roads are made in a too reckless way. The whole system is wrong. The county should elect an engineer to look after all county roads. Some should be closed up and only the good and most traveled roads should be kept. There are ten or more roads extending north and south through Soldier Township. At least half of these roads should be closed. Instead of going over some hills the road should be open through the adjacent land and go around the hill.

W. L. Reid did not agree with the idea of going around hills unless they are very bad. We have learned to put in better culverts that we used to have, but there is too much useless work done in grading the roads every year.

There was a great deal said about the value of wide tires, both as to their packing the road where used and the light draft.

It was suggested that there should be a movement to begin three macadamized roads out of North Topeka, on main traveled lines, north, east, and west.

Friday morning M. T. Kelsey, of Oakland, read a paper on "Potato Growing," which was followed by a lively discussion.

J. F. True, of Newman, read a paper on "Beef Production."

The morning session closed with a very interesting paper entitled "King Arthur's Round Table," by Mrs. H. W. Cheney, of North Topeka.

The farmers' wives had prepared dinner and spread it upon tables at the end of the schoolroom, where all were invited to refresh themselves, and judging from the appearance of the table after this part of the program it received as much attention as any.

At the opening of the afternoon session J. F. True offered the following resolution, which was adopted by a unanimous vote:

Resolved, That this institute requests our friend, the Kansas Farmer, to urge upon all farmers' institutes to have an earnest interest in preventing cruelty to farm animals, which may be caused by thoughtless owners causing them to wear iron collars in severely cold weather, or by other means of needless torture. We request the professors from Manhattan to give this matter a thought in their institute work.

After offering this resolution, Mr. True said that he was prompted to it by a sight which he saw on his way to the institute. It was a very cold morning, and as he drove by a field he saw some bony cows in the corner of the field without shelter and wearing a wire halter which had worn the hair off the neck.

Professor Clothier read a paper on "Keeping Up Soil Fertility at a Profit." By means of tables on the blackboard, he showed the amount of fertility, in the form of nitrogen, potash, and phosphorus, in the several grains and field crops, and the value of the same if bought at commercial fertilizer prices. According to this showing, it would surely bankrupt any farmer to replace by purchase the elements of fertility annually removed by the corn crop.

In the evening G. W. Priest, of Meriden, gave a talk on experiments in pig feeding, according to Manhattan Bulletin Nos. 53 and 61. An interesting discussion followed.

Indian Creek is one of the farming communities of Kansas where they always have a fine institute, profitable to all who attend.

Saving Corn Fodder.

It is becoming quite general of late for farmers to get full value out of their fodder. Many eminent writers consider the fodder of equal value to the ears. By utilizing the fodder a crop of hay is saved. What does this represent in dollars and cents? Supposing the hay to be worth at least $5 per ton, and 1¾ tons per acre, or $8.75 per acre, this means to the farmer who would need 60 acres of hay to carry his stock through winter, a neat little sum of $525. What does it cost to secure 60 acres of corn fodder? In the first place if it is cut by a 2-row harvester that will, by the aid of 1 man and 2 or 3 horses, cut and shock an acre per hour, it will be an easy matter to put up 8 to 10 acres per day. When this fodder is cured, which will be about October 1 to 15, bale a whole shock in 1 bundle under a pressure of 5,000 pounds. This is accomplished with 1 man and a 16-year-old boy, with team. They bale 6 to 8 acres per day, using a hay wire No. 12 gauge. This machine is changed to a loader by removing a single bolt. The loader lifts a whole shock while traveling to the next one. The fodder is put into barns or stacked, and makes exceptionally fine feed. Three men load and stack 5 to 6 acres per day. This figures then as follows: Cutting and shocking, 32 cents per acre, each man baling 6 acres, at $1.25 per day, (wire 20 cents); loading and stacking, 3 men at $1.25 per day, 75 cents per acre, or a total cost of $1.69 per acre. If there are 2 tons per acre, the cost is 85 cents per ton. How is this compared with $5 hay? The Kansas Farmer probably knows that there does exist machinery that does the above work. The baler and loader is made at Preston, Iowa. By utilizing the fodder the farm is increased by the extent of the land used before for hay. This can be pastured or cropped.

R. B. FRANKLIN.

Fort Madison, Iowa.

School Teachers

and High School students can make their Saturdays and their Winter vacation exceedingly profitable by securing subscribers to

The Ladies' Home Journal
AND
The Saturday Evening Post

An agent does not have to convince one against his will in order to secure a subscriber to either of these unique, high-class periodicals. There is no argument against them. There are innumerable arguments in their favor.

Liberal commissions on all subscriptions. Liberal rebates for large clubs. The larger the club, the larger the rebate.

And in addition to these inducements, we are going to give $18,000 to the 764 most successful agents.
Write for particulars.
The Curtis Publishing Company, Philadelphia

Kansas Corn for the Paris Exposition.

EDITOR KANSAS FARMER:—The committee of the Topeka Commercial Club, offering $76 in prizes for samples of corn for the Paris Exposition, has extended the time for receiving the same until Saturday, December 30, 1899. Parties interested will please take notice that competition will not close until that date. T. J. ANDERSON, Secretary.

Health for 10 cents. Cascarets make the bowels and kidneys act naturally, destroy microbes, cure headache, biliousness and constipation. All druggists.

Xmas is coming and the Union Pacific
will sell tickets on its lines for the Holidays at
Greatly Reduced Rates.
For dates of sales, limits and points to which tickets will be sold, apply to your nearest ticket agent.

The Rock Island Wall Map of the United States
Is the best offered to the public. It is very large and especially adapted to school purposes. Every teacher of geography and every business office should have one. It will be sent post paid to any address on receipt of fifteen cents in postage stamps or coin, Address, JOHN SEBASTIAN, G. P. A., Chicago, Ill.

IT COST US **$4,000** Costs You **15c**

We have spent $4,000 on our new book, "How to Make Money with Poultry and Incubators." It tells all. Leading poultry men have written special articles for it. 192 pages, 8x11 in. Illustrated. It's as good as **Cyphers Incubator** —and it's the best. Out hatch any other machine. 16 page circular free. Send 15 cts. in stamps for $4.000 book No. 84.
Address nearest office. CYPHERS INCUBATOR CO.
Chicago, Ill. Wayland, N. Y. Boston, Mass.

Our Great Holiday Offer.

Take advantage of our special offer and get the IMPROVED RELIABLE FEED COOKER, TANK HEATER AND STEAM OPERATOR, one of the greatest feed savers, labor savers and money makers the feeder can possibly have. Cooks a barrel of ground feed in 30 minutes; 25 bushels of corn in 2 hours; heats a barrel of water hot enough to scald hogs in 20 minutes; will heat water and cook feed in tanks 100 feet from cooker. Used and recommended by feeders throughout the United States and Canada. Highest awards at Omaha Exposition in 1898, and at Toronto, Can., and Dallas, Tex., in 1899, and at state fairs everywhere. Sold on a positive guarantee. Your money back if it does not come up to contract. Send for 1900 Century Catalogue and introduction prices. *It has no flues to rust out or leak. No scorched feed if you use it. The best machine of any kind proves the cheapest in the end.* RIPLEY HARDWARE CO., Box 23, Grafton, Ill

Horticulture.

POISONOUS PLANTS OF KANSAS.

A. S. HITCHCOCK, BOTANIST KANSAS EXPERIMENT STATION.

IX. WATER-HEMLOCK.

A smooth perennial, 3 to 5 feet high, growing in water or moist soil. The flowers and small aromatic fruits are borne in flat-topped clusters like the parsnip, which it also resembles some-

WATER-HEMLOCK (*Cicuta maculata*).

Showing section of spindle-shaped root and lower stem; the leaves, flowers and fruit one-half natural size, also fruit and cross-sections of seed, enlarged five times.

(Chestnut, Farmers' Bulletin No. 86, United States Department of Agriculture.)

what in its leaves. The roots, however, are spindle-shaped and several in a cluster at the base of the plant. It is found through the eastern third of the State in sloughs and swamps.

Water-hemlock is probably the most poisonous wild plant we have. The whole plant contains the poison, but the roots are the most dangerous, for they have a rather agreeable taste. Children sometimes dig them up and eat them thinking they are artichokes, or at least something good to eat. Cattle are not infrequently poisoned by eating the roots which have become exposed or by drinking the water in which some of the roots have been crushed by their feet. The poison is very violent, producing vomiting, severe pains, soon ending in convulsions and death.

X. JIMSON-WEED.

This is a common weed in old feed lots, barn-yards, and similar waste places through the eastern half of the State. There are two species quite

JIMSON-WEED (*Datura stramonium*).

a. flowering spray; *b*. fruiting capsule—both one-third natural size.

(Chestnut, Farmers' Bulletin No. 86, United States Department of Agriculture.)

similar in appearance and effects, the white-flowered and the purple-flowered. The latter also has purple stems.

Although there are cases recorded of cattle being poisoned by eating the leaves in green hay, interest chiefly attaches to this plant from the fact that children are occasionally poisoned by sucking the flowers, eating the green seed pods, chewing the ripe seed, or otherwise playing with the plant as children will. Poisoning may also occur from overdoses as a medicine. The symptoms are "headache, vertigo, nausea, extreme thirst, dry, burning skin, and a general nervous confusion, with dilate pupils, loss of sight and voluntary motion, and sometimes mania, convulsions, and death."

XI. BLACK NIGHTSHADE.

A smooth annual, 1 or 2 feet high, bearing small clusters of black berries about one-fourth inch in diameter. Common in a rich soil and waste places

BLACK NIGHTSHADE (*Solanum nigrum*).

One-third natural size.

(Chestnut, Farmers' Bulletin No. 86, United States Department of Agriculture.)

through the eastern two-thirds of Kansas and occasionally in the western counties. The foliage is more or less poisonous, producing symptoms somewhat similar to jimson-weed. The berries are said to be poisonous, but nevertheless they are sometimes consumed in considerable quantities without serious consequence. But the plant and the berries should be looked upon with suspicion.

Was It Stalk-Borer?

EDITOR KANSAS FARMER:—In replying to my inquiries in the KANSAS FARMER of November 9, you do not distinguish a difference between the potato stalk-weevil and the stalk-borer.

In Bulletin No. 82 it is stated that "The stalk-borer (Gortyna nitela) has been very destructive at various times," and again, "Another insect that has been very numerous during the past year, and at present one of the most common, if not the most destructive, pest that the potato-grower has to combat is the potato stalk-weevil (Trichoboris trinotata)."

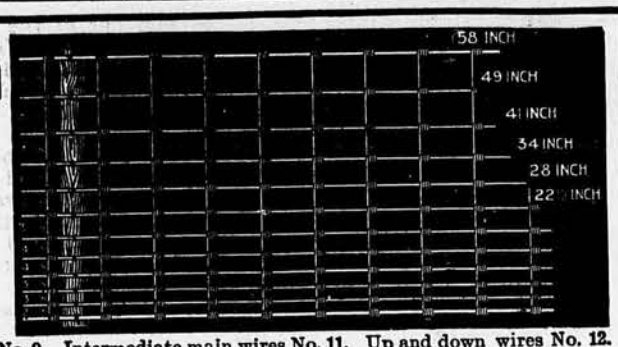
This latter was pretty thoroughly described in this bulletin, only I would have been glad to have heard of practical experiences of the general growers having successfully combated the pest (stalk-weevils) in their fields following the instructions therein given. But my inquiries were wholly confined to the stalk-borers, believing as I do that they were the depredators in our fields, all of which seemed to be caused by the one car-load of seed we purchased from the Red River country, Minnesota.

We planted the bulk of this car ourselves, but five other parties planted ten or more bushels each, and all were similarly attacked with the same depredators and no other potato-fields were so attacked. This to me seems conclusive that the seed was entirely accountable for all the trouble.

This car of seed was composed of Red River Ohios, which were very solid, more so than any seed I ever cut, and I have had much experience in cutting seed, having tested over 140 different varieties in the past five years.

Occasionally there was a rotten one, perhaps two in a bushel, and a few sacks were pretty badly frozen, otherwise the car could be pronounced the best stock we ever purchased. We have had seed from the Red River country

American Field & Hog Fencing



Top and bottom wires No. 9. Intermediate main wires No. 11. Up and down wires No. 12. With heaviest galvanizing this is

THE FENCE THAT FENCES.

More of our fences sold and put up in 1899 than of all other woven wire fences combined. Sold by our agents everywhere. If no agent in your town write to

AMERICAN STEEL & WIRE CO., Chicago or New York.

quite often, always with very satisfactory results until this car.

Our stand was quite satisfactory, better than we expected, owing to some being frozen. We feared many tubers had been chilled. I judge we had five-sixths of a stand. They grew very rapidly, so much so that they were affected quite considerably by sun-wilt, and we got ready to spray with Bordeaux mixture, thinking it might be early blight that had attacked the vines, but as the vines hardened up by age a little we saw no more wilted tips, and the weather being quite wet and showery we did not spray.

In June we noticed that an occasional vine was turning yellow; in July perhaps every fifth hill was so affected, and upon examining these vines we found the pith entirely eaten out and a hole bored down to the tubers, some of which, usually the larger ones, were commencing to rot. At digging time we found them as stated in my last inquiries—some hills entirely rotted and dried up; in others one or more rotted, and occasionally one where the tuber was still natural but black and mushy inside the skin.

We soaked all the tubers we ever planted for an hour and a half in the corrosive sublimate solution, which goes to show that it had no effect on the affected seed so far as our experience with the stalk-borer goes.

As many Kansas potato-growers depend on getting seed from the Red River country, I think a little further information will be of much interest, particularly if there is any way of distinguishing affected seed stock.

T. G. FERGUSON.

If your correspondent will compare carefully his questions and my answers as printed in your issue of November 9, he will see that the confusion which he alleges does not there exist.

With regard to the stalk-borer: It is practically impossible that the insect could have come in with the seed potatoes. It is a moth when adult, as large as the common cut-worm moth, and passes the winter in the moth state, according to Riley. The eggs are laid during the growing season on the stem of the plant in which the worm burrows.

Your correspondent states plainly that an examination of the plants seen to be affected showed "the pith entirely eaten out, and a hole bored down to the tubers." If this were the work of the stalk-borer, he certainly would have found some of the worms, but as he does not note their presence, we must infer that he did not find any, and that there must have been some other cause for the trouble. As I am not sufficiently versed in the fungous diseases of the potato to be able to say positively that the hollowing out of the stems is due in this instance to the same fungus that caused the rotting of the tubers, though I strongly suspect that such is the case, I must refer this feature of the inquiry to the mycologist. At any rate, the circumstances as reported by your correspondent render it extremely unlikely that the stalk-borer had anything to do with the matter.

E. A. POPENOE.

Kansas State Agricultural College.

The Nurserymen in Session.

The Western Association of Wholesale Nurserymen held its tenth annual meeting at the Hotel Victoria, Kansas City, December 14. Two sessions were held, one in the morning and the other in the afternoon. Among the most important matters considered was that of sanitary inspection laws. Laws are in effect in some of the mountain and Pacific coast States which practically exclude the product of the nurserymen of the Middle West and the association has decided to take the matter up with a view of effecting a remedy.

Eastern Kansas and western Missouri furnish nearly all of the stock for the orchards of the West. It was stated at the meeting that legislation in some States is drawn up for the protection of the nurserymen in those States to the exclusion of all others. Discrimination is charged against State officials in the West, who, it is said, have often seized the stock sent in by the nurserymen from this section without just cause, and destroyed it. It was openly stated that legislation in many States was manipulated to suit the resident nurserymen, who are, however, unable to supply their sections with the proper stock.

An effort was made at the last session of Congress to obtain a national law governing the inspection of fruit and shade trees, but the movement was opposed, it is said, by the States which are now practicing the discrimination.

A committee was appointed to enter into correspondence with the various roads in reference to getting better rates. It is charged that the railroads are unfair in their classification of nursery stock and on the question of weights.

It was brought out during the discussion of supplies and prices of stock during the afternoon session that the supply is much lighter than last year and that prices are at least 25 per cent higher on account of this scarcity of stock. The amount of stock to be planted next spring of apple grafts and grape-vines will be about the same as last year, but owing to the inability to procure propagating stock from Europe the number of pear and cherry-trees will be diminished at least one-third.

The election of officers resulted as follows: A. L. Brooke, North Topeka, president; R. H. Blair, Kansas City, vice-president; U. B. Pearsal, Leavenworth, secretary and treasurer. Executive committee—A. Willis, chairman, Ottawa; Peter Youngers, Geneva, Neb.; E. S. Welsh, Shenandoah, Iowa; J. L. Bagby, New Haven, Mo.; E. J. Holeman, Leavenworth, Kans.

The next meeting of the association will be held on the second Tuesday in July in Kansas City, at a place to be selected by the vice-president and secretary.

Following is a list of the members who attended the meeting: Bates Bros., Floral, Kans.; Blair & Kauffman, Kansas City; R. H. Blair & Co., Kansas City; Brewer & Stannard, Ottawa, Kans.; A. L. Brooke, North Topeka, Kans.; A. C. Griesa & Bro., Lawrence, Kans.; A. H. Griesa, Lawrence, Kans.; Holeman & Bente, Leavenworth, Kans.; D. S. Lake, Shenandoah, Iowa; New Haven Nurseries, New Haven, Mo.; Peters & Skinner, Topeka, Kans.; Stark Bros. Nursery and Orchard Company, Louisiana, Mo.; L. R. Taylor & Son, Topeka, Kans.; Sedgwick Nursery Company, Sedgwick, Kans.; E. S. Welsh, Shenandoah, Iowa; A. Willis, Ottawa, Kans.; J. Rag & Sons, Waukee, Iowa; F. W. Watson & Co., Topeka, Kans.; Youngers & Co., Geneva, Neb.

SMITH'S STRAWBERRY PLANTS

60 VARIETIES,

Old and new. Sample—Excelsior, Lady Thompson, Bisel, Splendid, etc. Price list free. One copy of "Strawberry Manual" sent for 10 cents. Address,

B. F. SMITH, Lawrence, Kas.

STARK TREES BEAR FRUIT

Best by Test—74 YEARS. Largest annual sale We bud 4 million Apple, whole-root graft 5 million box and pack free, ask no money until safe arrival,—guarantee SATISFACTION High quality—NOT high price. Fruit Book free.—VISIT US 1400 acres Nursery 43,000 acres Orchards. We PAY CASH each WEEK and want MORE salesmen

We PAY FREIGHT

STARK BROS LOUISIANA, MO. Dansville, N. Y. Stark, Mo., etc.

In the Dairy.

Conducted by D. H. OTIS, Assistant in Dairying, Kansas Experiment Station, Manhattan, Kans., to whom all correspondence with this department should be addressed.

A GOOD WORD FOR KANSAS.

The sun may shine on a fairer land than Kansas, but I am safe in saying that the sun does not shine on a better, brighter, more intelligent lot of creamerymen than those in the beautiful Sunflower State of the South. While Kansas seems quite a long way south to us from the farther north, still it is not so far south but what we feel perfectly at home with these brother butter-makers.

If the Jensen Creamery at Manhattan is a fair sample of Kansas creameries, then I do not hesitate in saying that Kansas has the best creameries of any State I have ever visited. The creamery at Manhattan is the finest equipped plant of any that it has been my fortune to visit. Here is a creamery where pasteurized butter is made the year round. The process differs from the one used at Albert Lea, Minn., in that the cream only is pasteurized—the milk being run through an Alpha separator and the cream directly into the Jensen pasteurizer. The pasteurizer in use here is the original machine, the first one made, and has been in constant use for a number of years.

Mr. Jensen is very ingenious, for the pasteurizer is not the only invention he has studied out. He has a cream cooler which lowers the temperature of this hot cream to 70° as it passes through the cooler, and is so simple that a child can operate it. Then he has a "starter" can in which they pasteurize the skim-milk and also cool it again in the same machine; besides this he has a hot water heater which is of his own invention. With the exception of the latter machine they all run by belts driven from the main shaft. I wish every Iowa and Minnesota butter-maker could visit this creamery; there is so much to learn there which is new.

There is one department which I wish to speak of; this is a fine room fitted up with an elegant bathtub and toilet arrangements, and I have come to the conclusion that no creamery is up to date without a bathroom. In a creamery where hot and cold water is so plentiful the arrangements for such a room can be easily made and at a very slight expense. I wish I could describe this model plant more minutely, but as it is hard to do so and make it intelligible to the readers, will only add that if you are in the neighborhood of Manhattan, visit the Jensen Creamery.

Manhattan was a beautiful place to hold a convention, for the college is situated very finely and the large commodious buildings, all made of stone, made it very interesting to the stranger. The new dairy building, which is to be finished soon, will be one of the best, if not the best, dairy school building in the United States; and from my observation I judge that such a school is necessary if Kansas is to take her place among the leaders of fine butter. Undeniably there is a lot of fine butter made in Kansas, but like all other States there is a very large amount of poor goods made, and the only way to improve these goods is to send the farmers' sons and daughters to this school to learn how to produce good milk, and the butter-makers to learn how to produce good butter from the good milk.

I did not get acquainted with any of the officers of the agricultural department. They seemed too busy getting acquainted with their constituents to devote any time to those from out of the State, but I should judge from outward appearances that this department is in good hands. They need a good butter man and I believe they could do no better than to pick out one of these practical creamerymen and put him in charge of the three months' course in butter-making, and then they will be able to turn out some practical butter-makers who will be a credit to the State. Thanking the Kansas creamerymen for their kindness during the convention, I trust that I will have the pleasure of meeting them again in their land of sunshine and sunflowers.—F. A. Leighton, Chicago Dairy Produce.

New Hampton, Iowa, November 27, 1899.

Are Creameries Beneficial to the Farmer?

C. A. AUSTIN.

(Continued from last week.)

The creameries, manufacturing as they do great quantities of butter of a uniform grade, find ready sale and the greater the amount, or as the commission men say, "the longer the line of goods of extra quality, the better the price obtainable." Again, if your creamery is favored with your patronage to such an extent that it can ship its butter in car-load lots, the saving in freight is another item, which can not be obtained by local shippers, and is by no means small.

Let us consider another advantage. At the present time how many of your merchants will buy your butter and pay cash for it, and give you as good a price as the creamery? I venture to assert not one, unless there happens to be a local shortage, which could not occur if there were no creameries. Your creameries pay you the cash every month, and sometimes oftener, and you can go and get your money at any time you want it. (Many of my patrons draw as often as three or four times during the month.) You can take this same cash and buy at least 10 per cent more goods with it than you can get in trade, and are not compelled to buy where you sell the butter, but can go where the goods suit you the best, or, in other words, buy just where you choose. Your merchant can give you full value of 100 cents on the dollar, whereas in trade he must place a speculative value either on the butter you sell to him, or else must have a greater profit on the goods he sells to you, for the simple reason that he can not tell just what the product will bring, when placed upon the market of some distant city.

Of course we have a few dairymen who do not patronize the creamery, and yet make a success of the business, but these must either make the butter themselves, or you have only to talk with their wives to find a sentiment strongly in favor of sending the milk to the creamery. Is it not due to the helpmeet, whom you have promised to cherish and protect, that you exercise some of your protection by taking from her overburdened shoulders the work of caring for the dairy products, thus giving her an opportunity for taking her proper place in the social life of both the home neighborhood and nearby towns? She can also have time to ornament the home with the little articles of her own handiwork, which every true wife and mother so dearly loves to do, and which becomes dearer and more lovingly cherished by every occupant of the home as the whitened locks and less sprightly step are constantly bringing to our minds the fact that mother will not be always with us. The young husband may say: "She is just as able to work as I am." True, perhaps, but remember the old adage, "Man's work is from sun to sun, but woman's work is never done." Do not think I am merging this into a plea for woman's rights, but remember that the hardest fact of our business life is always more or less closely connected with the truer sentiment of every honest heart. Will not the relief from this hard work act as a tonic, keep the bloom of youth on the cheek, keep up the spirits, strengthen the hope, keep the temper sweeter, make home pleasanter, lessen doctors' bills, and thereby prove exceedingly beneficial to the farmer?

Mr. Moody's Boss Cow.

A. A. Moody's cow still keeps up her good record. She became fresh September 24, and on the first day of October her milk was taken to the creamery. During the month 1,227 pounds were sent, and about 2 pounds a day used at home. The tests stood 4.4 and 4.2 and the amount of butter fat paid for was 53 pounds. The price paid was 21 cents, and the creamery check called for $11.13. This is indeed a marvelous record, for above the cash received from the cow, it must be remembered that she gave enough for home use besides, and the skim-milk returned for feeding purposes amounted to nearly half a ton. The cow with this remarkable record is 9 years old, and, unfortunately for its owner, all her calves except one have been males. Holstein blood predominates in the animal.—Tonganoxie Mirror.

Price of Butter.

A. JENSEN, IN CIRCULAR TO PATRONS.

I am glad that my prediction came true, when in former circulars I announced the price of butter would go up, and there is nothing now to indicate that it will be less for some time to come. I am only sorry that I don't receive twice the amount of milk that I do, and I could easily pay 21 to 22 cents for butter fat on the present market. But, nevertheless, I say that my time has come now, and if you will furnish me with the milk, I will pay you all it is worth, and at all times. The cause of high-priced butter is easily accounted for. Just look in your neighborhood, and are there not less cows milked and less farmers milking, and are there not more farmers feeding steers and raising calves? I predict that the creamery will soon show its value to any community, and you will all appreciate having one, when beef cattle run their course; as is indicated just at this time, when feeders are high, feed and grain high and prices on fat cattle on a decline. Why not make hay while the sun shines, or sell milk when butter in the open market is scarce and high? Country butter in Manhattan has now reached 14 to 18 cents, as the home demand is checked, caused by many leaving the creamery and making butter. Don't look at the creamery as your last resort, but give it a chance by selling your full supply of milk the year round; not partly skimmed or adulterated, but pure, fresh cow's milk.

Dairy Success.

PROFESSOR ROBERTS, CORNELL UNIVERSITY.

Sell the poor cows and begin breeding and filling up the vacancy with better ones. Choose the best, and breed them to a sire from a butter-making family. Breed a dairy cow according to the law of dairy-breeding. The man who runs a steamboat runs it by the law of steamboating, not of railroading; if he did not he would get stuck in the mud. When you have secured a good cow, get her to eat all she can. The more you coax her to eat the better, as profit comes alone from foods. Don't starve the calf; you can not afford to let it stop growing a minute. Neither teach it to make fat; if you do, when she is 4 years old you will ask her for milk and she will say: "No, sir; you taught me to give you tallow, not milk; you made me fat and large in front and fitted me out with a beefy form, and now I am a fine type of that sort of animal. No, sir; do not ask me for milk. I have not got it to give you; but I can give you tallow if that will do." Do not discard the heifer when she is 2 years old and has her first calf if she does not come up to your expectations; try her another year; then, if she refuses, turn her over to the bologna-sausage mill. It is a long journey from the scrub to the paying herd, but it can be accomplished if we will.

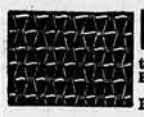
Please mention Kansas Farmer when writing our advertisers.

NEW 20TH CENTURY CREAM SEPARATORS

Sept. 1st marked the introduction of the Improved 20TH CENTURY "Baby" or "Dairy" sizes of De Laval Cream Separators and these newest "Alpha" disc machines are simply unapproachable by anything else in the shape of a cream separator. Overwhelming as has been the conceded superiority of the De Laval machines heretofore their standard is now raised still higher and they are more than ever placed *in a class by themselves* as regards all possible competition. Send for new catalogue.

THE DE LAVAL SEPARATOR CO.

RANDOLPH & CANAL STS., CHICAGO. | 74 CORTLANDT STREET, NEW YORK.



FENCE! STRONGEST MADE. Bull-strong. Chicken-tight. Sold to the Farmer at Wholesale Prices. Fully Warranted. Catalog Free. COILED SPRING FENCE CO. Box 40. Winchester, Indiana, U. S. A.

Farmer's Improved FEED COOKER

Is superior to all others in Safety, Durability and Cheapness of cost and operation. Scientifically constructed. Heavy cast iron lining in furnace. Boiler of heavy galvanized steel. Stands high from the floor and can be put up in the barn or summer kitchen with safety. Made in 3 sizes. Every one guaranteed or money refunded. For descriptive book and prices send 2c stamp. Address, ACME MFG. CO., Quincy, Ill.

We make steel Windmills, Steel Towers and Feed Grinders and are selling them cheaper than the cheapest. Our productions are standards; are first-class in every respect and are sold on trial. Send us a postal and we will tell you all about them.

CURRIE WINDMILL CO., Manhattan, Kans.

AGENTS WANTED.

LIGHTNING WELL MACHY IS THE STANDARD

STEAM PUMPS. AIR LIFTS. GASOLINE ENGINES

WRITE FOR CIRCULAR

THE AMERICAN WELL WORKS

AURORA, ILL - CHICAGO - DALLAS, TEX.

1900 DAVIS 1900 CREAM SEPARATOR

Makes the work easy and profitable to the dairy farmer. Agents wanted. Catalogues. free.

DAVIS CREAM SEPARATOR CO. 88-90-92 W. Jackson St. CHICAGO.

NO. 6 LOW SPEED POWER MILL.

YOUR CHOICE

Of 3 BEST MILLS made in America today at any price. Unequalled by any of their class, in capacity, quality of work and lightness of draft.

20 to 60 bushels per hour. GUARANTEED to grind more corn per horse power than any other mills of their class.

NO. 3. LIGHT POWER GEARED MILL.

NO. 1 SWEEP MILL.

Grind ALL grains, ear or shelled, coarse or fine, dry or wet; never choke or clog; never heat the burrs or grain.

Write us for prices and information before placing your order.

Address: mentioning this paper, SHELDON CREAM SEPARATOR CO., F. 34 Clark St., Chicago, Ill.

CATTLE AND HOGS

and all kinds of live stock will produce better results if fed ground feed. The small pig and the dairy cow need it especially. The best way to prepare ground feed is with the Kelly Duplex Grinding Mill. It just grinds anything—ear corn, cob, husk and all, cotton seed and all small grains, single or mixed. Makes coarse, medium or fine feed. Takes little power, grinds fast. Strong, well made of good material and last indefinitely. Send for our free catalogue No. 32

The O. S. Kelly Mfg. Co., Iowa City, Ia.

CORN BELT POWER GRINDER.

For Grinding Ear Corn and Small Grain.

Simple, Powerful, Durable.

Designed more especially as an ear corn grinder, but will grind all grains equally well. Does not crush ear corn and cob, but cuts it first into coarse and then gradually finer cubes until taken by the burrs. GRINDS SATISFACTORILY with 3-horse power up to 15. It's slow speed, only 50 to 300 revolutions. So made it can't heat and spoil feed.

WE GUARANTEE IT to grind more ear corn per horse power than any other grinder made. Grinding parts easily taken out and replaced if necessary. Equipped with elevator and sacker when desired. Write us for circulars, prices, &c., before you buy.

SPARTAN MANUFACTURING CO., 18 Fox St., Aurora, Ill.

When writing any of our advertisers, please state that you saw their "ad." in Kansas Farmer.

100% a Year is Big Interest

but that is what many users of the *IMPROVED UNITED STATES SEPARATOR* are receiving on the money invested.

It is nothing unusual to receive letters from users of the U. S. stating that it has produced enough more cream in a year to pay for the machine, to say nothing of the improved quality of the product and the saving of time and labor. Our 1900 or "New Century" Separators, with increased capacities, are better than ever.

We also manufacture

A Complete Line of Dairy and Creamery Apparatus.

Write for our latest illustrated catalogues,—Free.

VERMONT FARM MACHINE CO., - Bellows Falls, Vt.

WAR MONEY, AND HOW ENGLAND RAISES IT.

(Continued from page 6.)

are very far from saying, in the manner of the man in the gallery, "What does it matter?" they do not propose to be over hasty in their anxiety to pay for this war. Parliament has voted the money—enough for the present, at any rate—and the chancellor of the exchequer has told where that money is to come from; about paying it back again there is no hurry, and unless funds should run out before Parliament reassembles in the natural course in April, the question of payment will not be considered until then. When payment is made, the funds probably will be raised by means of a uniform tax, and of this the Boers will have to stand their full share, and perhaps, more, too. Britain claims that they brought on this war and that they ought to pay for a good deal of it. The Transvaal is rich in its gold fields, and although one of the constant complaints of its inhabitants has been that the taxes on these fields are excessive, the chancellor of the exchequer steadfastly believes that, under a pure and equitable administration of its public affairs, the Transvaal, besides supporting its own Government, could furnish appreciable assistance toward the payment of the new floating war debt.

However, although no one is worrying over the payment of the war bill at present, when the time for its consideration comes, short shift will be made of it. It is definitely known that Sir Michael Hicks-Beach hopes that it may be paid off in the year following next year—1901.

If, however, Sir Michael Hicks-Beach had thought it wise to make an increase in the income tax it would have been by no means the first time that an action of this kind has been taken in an emergency brought about by war. Such an increase was made in the years from 1864 to 1867 by Lord Beaconsfield to provide for the extraordinary disbursements caused by the Abyssinian war, and in 1884 Mr. Gladstone followed his example with an increase of a penny on account of the Bechuanaland and Soudan expeditions. In both of these years, however, the income tax stood at 5 pence on the pound, instead of at 8 as at present, the increased tax being the result of the immense additions to the British army and naval forces. As for the national debt, payment on that colossal liability was suspended as a war measure by Mr. Gladstone in 1885. Again in 1894 an attempt was made to increase the revenue by an additional tax on spirits. The only result was the disorganization of the liquor trade and little if any addition was made to the revenue for the period during which the increase was in existence.

To Clean Nursery Bottles.

After the bottle has been used, rinse it thoroughly in warm water; then fill with warm water containing a teaspoonful of Gold Dust Washing Powder, and let it stand, shaking every now and then. If rubber tube is used, let it remain also in the water. Rinse through several clean waters. Gold Dust is much more effective than soap to clean them, as it removes all specks and motes clinging to the sides of the bottles.

Words of Praise.

Prof. S. A. Weltmer, of Nevada, Mo., a Kansas Farmer advertiser, who has discovered a new science called Weltmerism, which it is claimed cures all diseases without the aid of drugs or the surgeon's knife, and does this curing at a distance just as readily as it does those cases brought to Nevada, has recently been the cause of the Commercial Club of Nevada, Mo., passing the following resolutions:

"Resolved, That we point with special pride to the great and humane work being performed in this city by Professor Weltmer in the cause of humanity, the discovery of a new science, and the founding of a great school and sanitarium of magnetic healing, the beneficial results of which are attested by hundreds of men and women from every State in the Union, with whom we have come in personal contact, the integrity of whom can not be successfully assailed.

"Resolved, That in the person of Professor Weltmer the people of this city owe a lasting debt of gratitude, not only for his wonderful success in healing the sick and distressed, but for his generous and open-handed charity.

"Resolved, That we have ever found in him the highest type of a citizen, broad and progressive, liberal in his views, a good and kind neighbor, a man of peace, with a world of charity toward all mankind, and he is, in our estimation, one of the bright and gifted men of the century.

"Resolved, That this great magnetic school and sanitarium is a credit to any city, and the high moral plan upon which it is conducted is worthy of all praise. We know personally all the officers, the professors, and attendants, both men and women, and they stand well in this community. We can vouch for their high moral character, and their faith in the avocation in which they are engaged. And as such we, the members of this club and citizens of Nevada, unqualifiedly endorse this institution, not only to the people of our own State, but to the world."

REMNANTS OF SILK RIBBONS ALMOST FREE

We have purchased, at recent wholesale *auction sales* several large lots of Remnants of Silk Ribbons, at prices which will enable our lady customers to secure splendid bargains. These remnants are all from one to two and three yards in length, and many of them are the *finest* quality of Ribbons in the market, of *different widths*, in a variety of fashionable shades; in fact, nearly all colors are represented; also different kinds of Ribbons adapted for *bonnet strings, neckwear, trimming for hats and dresses, bows, scarfs, etc., etc.* No lady can purchase such fine Ribbons as these at any store in the land for many times our price, so that the bargains offered by us should be taken advantage of by our customers.

Our stock of Silk Ribbons, from which we put up these 35-cent packages, consists of Crown Edge, Gros Grain, Moire, Picot Edge, Satin Edge, Silk Brocade, Striped Ottoman, and various other styles of Plain and Fancy Silk Ribbons suited to the wants of our lady friends.

We put up carefully assorted packages of these Ribbons, assorted colors. No remnants less than one yard long, and all first-class, useful goods.

We will send **1** package for **35** cents, silver, or **36** cents in 2-cent stamps. Carefully packed in boxes, postpaid, upon receipt of price. Address **PARIS RIBBON CO., Box 3045, New York City, N. Y.**

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or 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.** *Initials or a number counted as one word. Cash with the order. It will pay. Try it!*

SPECIAL.—*Until further notice, orders from our subscribers will be received at* **1 cent** *a word or 7 cents a line, cash with order. Stamps taken.*

FOR SALE—Two pedigreed Percheron stallions—best breeders in Anderson County. For full information, address C. Hemrick, Richmond, Kans.

YOU CAN BUY A FARM WITH YOUR RENT.

We will sell you a farm of 40 acres, 6-room house and barn in our great Chicora Colony, in the South, on a cash payment of $250, balance $5 monthly. Send for particulars and our Real Estate Journal all free. D. L. Risley, 211 S. 10th St., Philadelphia, Pa.

WANTED—Men to learn barber trade; two months completes. No expense if you will work for us. $60 monthly paid. New opportunity for our graduates. Catalogue and particulars free. Moler Barber College, St. Louis, Mo.

FOR SALE—Registered Percheron, French Coach and Standard-bred stallions and jacks; S. C. B. Leghorns. H. C. Staley, Rose Hill, Butler Co., Kans.

50,000 Apple, Peach, Plum, Cherry, Pear and other small fruit trees, vines, etc. First-class. Special wholesale prices for a short time only. S. J. Baldwin, Seneca, Kans.

FOR SALE—Three Mammoth jacks and one imported Spanish jack. W. C. Ward, Linwood, Kans.

FARM FOR SALE—Very cheap. 160 acres in eastern Kansas. Fairly well improved, fine soil. A snap at $16. Address Geo. E. Winders, Mt. Ida, Kans.

IF YOU WANT some extra fine pure-bred Plymouth Rock cockerels, write me quick. Fine birds. Prices low. C. D. Beeth, Larned, Kans.

WANTED—Man to sell best gasoline lamp made. 100 c. p.; 20 hours for 2 cents; big profits to agents; write quick. Studebaker Lighting Co., Kansas City, Mo.

FOR SALE---5,000 ACRES OF FINE LAND

for stock raising, near our great Chicora Colony, S. Carolina. Near railroad; convenient to markets for milk, butter or beef. Price $3 per acre to quick buyer. D. L. Risley, 211 S. 10th St., Philadelphia, Pa.

FOR SALE—One Percheron stallion, imported, registered, black, weight 1 800 pounds. Also two high-grade stud colts. Joseph McCoy, Eskridge, Kans.

CHRISTMAS TREES FOR SALE—Evergreens, Norway and White Pine, and Arboritea, 4 feet high, 30c; 5 feet high 40c; 6 feet high, 50c; 7 feet high, 60c, at express office. Old Douglas Co. Nursery, Lawrence, Kans. Wm. Plasket.

10,000 PLAYS and BOOKS for HOME AMUSEMENT; Charades, Children's Plays, Negro Plays, Duologues, Monologues, Mrs. Jarley's Waxworks, Musical Sketches, Joke Books, Operettes, Shadow Pantomimes, Tableaux. CATALOGUE SENT FREE. SAMUEL FRENCH, 24 WEST 22nd STREET, NEW YORK CITY, the Largest Theatrical Publisher in the World.

ANGORA GOATS FOR SALE—Will sell one male and two female Angora goats for $10 a head. Address C. E. Westbrook, Peabody, Kans.

RHEUMATISM—Cured in 5 days. Sample, 50 cents. This quantity has cured 10,000 people. Fits stopped in 24 hours. Brazilian Drug Co., Chicago, Ill.

M. B. TURKEYS FOR SALE—With and without score cards; also Barred Plymouth Rock cockerels and Pekin Ducks farm-raised from prize winners. M. S. Kohl, Furley, Kans.

FOR SALE—Scotch Collie puppies at weaning time; now three weeks old. Price only $5 each. Inquire at C. G. Staley's, Moran, Kans. (Allen county).

PURE-BRED POULTRY—Barred Plymouth Rock chickens and White Holland turkeys. Horace Normington, Rose, Kans.

FOR SALE—Jersey bull calf, nearly 1 year, sired by Stoke Pogis Marigold. See cut or breeding of sire in another column. Sayda Polo Jersey Farm, Parsons, Kans., or W. C. Moore, proprietor, Junction City, Kans.

FOR SALE—Jersey heifer, yearling, registered, sired by Stoke Pogis Marigold. See cut and breeding in another column. Will be held and bred back to sire. Just one Marigold heifer for sale. Sayda Polo Jersey Farm, Parsons, Kans., or W. C. Moore, proprietor Junction City, Kans.

S. C. BROWN LEGHORN COCKERELS—Only 15 birds left. Price $1.50 each. Write me. Frank Tuttle, Ridge, Woodson Co., Kans.

WANTED—Fifty to 100 sheep or goats, breeding ewes, to handle on the shares, on a splendid farm near Topeka. Address "Vinewood Farm," care of Kansas Farmer, Topeka, Kans.

FOR SALE—Three hundred and fifty to 500 bushels sorghum seed. Will send samples. N. O. Waymire, Garfield, Kans.

FOR SALE—Poultry supplies, bran, shorts, and oil-meal, etc. W. F. Hebb, 412 Kansas Ave., Topeka.

FOR SALE—Shorthorn bulls from 4 to 20 months old. All reds. Also, St. Bernard pups. F. H. Foster, Mitchell, Kans.

FOR SOMETHING GOOD—In Barred Plymouth Rocks of high quality and breeding. White Holland Turkeys, the best in Kansas. White Pekin Ducks that are right and prices according to quality of stock. Cheaper now than they will be next spring. Porter Moore, Parsons, Kans.

BLOCKS OF THREE.—Two new subscriptions for one year for $2, and, in addition, a renewal for one year free to any old subscriber who sends two new subscriptions and $2 in one order. Kansas Farmer Company, Topeka, Kans.

FOR SALE OR TRADE—A Mammoth Black jack, coming 6 years old; good bone, style and action. J. H. Furey, Jewell City, Kans.

WANTED—Farmers and poultry breeders to buy their feed and poultry supplies of W. F. Hebb, 412 Kansas Ave., Topeka, Kans.

FOR SALE—Ten Red Polled bulls, from 7 months to 1 year old. Also one 75-barrel roller mill to sell or rent. D. F. VanBuskirk, Blue Mound, Kans.

BRONZE TURKEY TOMS—For sale. John C. Snyder, Kildare, Okla.

FOR SALE—Standard-bred Silver Wyandottes and W. P. Rocks. R. F. Meek, Hutchinson, Kans.

HEN'S TEETH—Oyster shells, cut clover, and all kinds of stock and poultry supplies. W. F. Hebb, 412 Kansas Ave., Topeka, Kans.

SALESMEN wanted to sell fruit trees; big wages to hustlers; no experience necessary; cash weekly. Write Manager Western Nursery Co., Lawrence, Kas. Mention Kansas Farmer.

FOR SALE—Fourteen high-grade Hereford, and 6 high-grade Shorthorn bulls. A bargain if taken soon. Hugh A. Hodgins, Topeka, Kans.

HEREFORDS FOR SALE—A fine lot of registered Hereford bulls, 9 to 14 months old; 16 head. Also 50 or 60 head of females, all ages; well bred, prices low. Correspondence solicited. J. Q. Cowee, Grand Haven, Kans.

W. F. HEBB, 412 Kansas Ave., sells bran, shorts, oil-meal, Fancy poultry, incubators, and poultry supplies of all kinds.

FOR EXCHANGE OR SALE—The pure Cruickshank bull My Lord 116563. Bred by Col. Harris, sired by Imported "Spartan Hero" 77932; dam Imported "Lady of the Meadow" vol. 30, page 615. Both from Cruickshank herd in Scotland. H. W. McAfee, Topeka, Kas.

WANTED—Cane, Millet, and Alfalfa seed; also limited quantities of Jerusalem Corn and Milo Maize. F. Barteldes & Co., Lawrence, Kans.

FOR SALE—Imported and full-blood Percheron, Clydesdale and Coach stallions. Good individuals, colors and ages. For further information address W. H. McMillen, Manager, Box 204, Topeka, Kans.

WANTED—To trade for, or buy, a first-class jack and four thoroughbred Hereford bulls. Ed Warner, Mullinville, Kans.

FOR SALE—What's Wanted Jr. 2d No. 18534, good enough in show condition to go anywhere. Extra fine breeder; am closing out. Sired by the show boar What's Wanted Jr., No 10026. First dam Fanta No. (41634), and four dams back of her are prize-winners. F. W. Baker, Council Grove, Kans.

POLAND-CHINAS—No better anywhere. $5 each. Write for breeding. M. C. Hemenway, Hope, Kans.

FOR SALE—Twelve yearling grade Shropshire rams $12 to $15. Also breeding ewes. E. W. Melville, Eudora, Kans.

BOAR PIGS—Sired by Hadley Model T 21927 for sale. Walter Roswurm, Council Grove, Kans.

DUROC JERSEY SWINE—Choice registered stock from best of families. For sale by J. C. LEACH, Carbondale, Kansas.

BREEDERS' ANNUAL REPORT FOR 1899—The great Kansas Live Stock Manual and proceedings of the Ninth Annual Convention of the Kansas Improved Stock Breeders' Association, contains 125 pages; price 25 cents. Address H. A. Heath, Secretary, Topeka, Kans.

FOR SALE—Imported English Coach stallion and Galloway bulls. W. Guy McCandless, Cottonwood Falls, Chase Co., Kans.

100 Duroc-Jersey swine for sale. On account of health will sell all my stock except 10 brood sows, at reduced rates next 30 days. Males old enough to use; gilts and pigs in pairs and trios. Pedigree with every pig. M. H. Alberty, Cherokee, Kans.

WANTED—Every breeder in Kansas to become a member of the Kansas Improved Stock Breeders' Association. Send membership fee of $1.00 to H. A. Heath, Secretary, Topeka, Kans., and you will receive the Breeders' Annual Report for 1899.

REGISTERED SHORTHORN BULL CALVES.—Prices, quality considered, defy competition. D. P. Norton, Dunlap, Kans.

ABERDEEN-ANGUS BULLS—Twelve extra individuals of serviceable ages; registered. Wm. B. Sutton & Son, Russell, Kas.

I WILL PURCHASE soldiers' additional homestead right where entry was made prior to June 22, 1874, of less than 160 acres, and whether entry was cancelled or perfected. I also locate land warrants. Henry J. Adams, Attorney, 628 Kansas Avenue, Topeka, Kans.

Incubator Hatching and Raising Small Chicks. A new book by an expert and successful poultry raiser. Not a new edition of worn-out ideas nor a chicken doctor book. Tells how to hatch and raise chicks that need no doctoring. A chapter on operating incubators and brooders, and several chapters on the care of small chicks. Tells what and how to feed them, a chapter on the effect of lice, on damp and filthy quarters, tells what causes bowel trouble, etc. The book sent to any address on receipt of 25 cents in silver or stamps. Address Sure Hatch Incubator Co., Clay Center, Nebr.

BLOSSOM HOUSE—Opposite Union depot, Kansas City, Mo., is the best place for the money, for meals or clean and comfortable lodging, when in Kansas City. We always stop at the BLOSSOM and get our money's worth.

PERSONALLY CONDUCTED TOURIST EXCURSIONS

—TO—

CALIFORNIA

Great Rock Island Route

CHOICE OF TWO ROUTES

Scenic Route leaves Kansas City and Omaha every Friday via Colorado Springs and Salt Lake to California and Pacific Coast points.

Southern Route leaves Kansas City and Omaha every Wednesday via Ft. Worth and El Paso to Los Angeles and San Francisco.

These Tourist Cars of latest pattern are carried on Fast Passenger Trains, and their popularity is evidence that we offer the best.

The lowest rate tickets are available in these

Popular Pullman Tourist Cars

For full description of this service and the benefits given its patrons, address....

E. W. THOMPSON, A. G. P. A., Topeka, Kans.
JOHN SEBASTION, G. P. A., Chicago, Ill.

MEMPHIS ROUTE

Holiday Excursions

On December 20, 21 and 22 the Kansas City, Fort Scott & Memphis R. R. Co., will sell round-trip tickets to points in Florida, Georgia, Alabama, Mississippi, the Carolinas and the Southeast generally at rate of one fare, tickets good thirty days for return.

On December 23, 24, 25, 30 and 31 and January 1, round-trip tickets will be sold between all local stations (except where rate is 50 cents or less) at rate of one fare, limited for return to January 2.

Holiday Rates 1899-1900.

The Missouri Pacific will sell tickets between stations within 200 miles distance at rate of one fare for round trip, with minimum of 50 cents. Dates of sale, December 23, 24, 25, 30 and 31 and January, 1, limited for return January 4,

Experience the Best Teacher.

But a wise man profits by the experience of others. Every farmer and dairyman needs a practical, helpful paper like

Dairy and Creamery

PUBLISHED AT CHICAGO, ILL.

filled with information gathered from the actual experience of practical and scientific breeders and feeders of cattle and pigs. He wants to know how other men get the best results; how to feed to the best profit; how best to utilize his skim milk; how to build up a first-class dairy **from the resources he has;** what crops to grow to keep up the flow of milk at all seasons.

Last year a patron of a Kansas creamery who read a dairy paper and kept good cows, made $36.00 per cow more than the poorest patron of the same creamery who did not read a dairy paper. That means something; it shows the value of an up-to-date, reliable adviser like **DAIRY AND CREAMERY.** (Subscription 50 cts. per year.)

FREE! We will send **DAIRY AND CREAMERY,** the best semi-monthly paper published for farmers and dairymen, **absolutely FREE for one year** to all new subscribers to this paper, and to all old subscribers paying their subscription **one year in advance. Both papers for the price of one. Send your subscription to this office while this offer is open.**

KANSAS FARMER, Topeka, Kansas.

MARKET REPORTS.

Kansas City Live Stock.

Kansas City, Dec. 18.—Cattle—Receipts since Saturday, 5,015 cattle; 959 calves; shipped Saturday, 846 cattle; 789 calves. The market was steady to a shade lower. Following are the representative sales:

SHIPPING AND DRESSED BEEF STEERS.

No.	Ave.	Price.	No.	Ave.	Price.
39	1287	$5.12½	21	1297	$5.00
18	1415	5.00	80	934	4.95
15	1140	4.40	1	1107	4.25
3 Jer	926	4.00			
WESTERN STEERS.					
117	1140	4.80	49	1168	4.80
57	1152	4.35	41	1125	4.35
2	1080	4.00	2	1025	3.60
3	1083	3.45	1 can	600	2.50
OKLAHOMA STEERS.					
20	1129	4.35	31	935	4.10
9	830	4.00	33 stk	823	3.70
TEXAS AND INDIAN STEERS.					
19	1104	4.25	51	957	4.20
1	1010	3.70	1	980	3.50
90	997	4.15	16 c&s	879	3.75
WESTERN COWS.					
29	760	3.80	37	721	2.95
30	726	2.95	36	726	2.95
46	707	2.95	49	702	2.95
50	7.4	2.95	20	697	2.60
TEXAS AND INDIAN COWS.					
104	882	3.25	26	839	3.10
25	741	3.20	23	738	3.20
26	675	2.70	3	646	2.75
12	795	3.15	28	87	2.50
OKLAHOMA COWS.					
3	613	3.55	1	570	3.40
1	730	3.40	1	760	2.75
NATIVE HEIFERS.					
2 s&h	733	4.50	2	750	4.25
14	916	4.25	2	840	4.00
1	890	4.00	3	1046	4.00
3	773	3.65	1	730	3.65
NATIVE COWS.					
2	1280	4.00	8	890	3.65
13	1185	3.35	7	1025	3.50
12	995	3.30	4	980	3.25
1	1250	3.25	6	981	3.15
1	1030	3.15	6	990	3.15
NATIVE FEEDERS.					
1	1040	4.50	2	950	4.40
5	904	4.35	3	913	3.60
NATIVE STOCKERS.					
39	652	4.30	3	800	4.25
13	921	4.30	22	816	4.00
4	435	4.00	1	610	3.50
1	540	3.60	4	562	3.35
STOCK COWS AND HEIFERS.					
1	790	4.00	18	722	3.80
2	590	3.65	2	830	3.50
9	792	3.50	6	779	3.30
2	585	3.25	12	640	3.25
12	250	2.50			

Hogs—Receipts since Saturday, 7,389; shipped Saturday, none.
The market was 5 to 10 cents lower.
Following are today's sales:

61..284	$4.07¼	80..263	$4.07½	51..244	$4.05
65..228	4.05	67..284	4.05	32..247	4.05
64..293	4.05	60..278	4.05	62..290	4.05

Sheep—Receipts since Saturday, 4,784; shipped Saturday, 424.
The market was 10c to 20c lower. Following are to-day's sales:

239 Col. lbs.	81	$5.25	179 Nev.lms.	79	$5.05
249 Col. lbs.	69	5.05	268 W. yrl.	107	4.50
239 C.fdg. l.	101	4.25	15 culls	77	225
61 sheep	101	4.25	23 bck. lms.	83	5.00

Chicago Live Stock.

Chicago, Dec. 18.—Cattle—Receipts, 16,000; market strong. Butchers and canners active, shade higher; feeders firm. Beeves, $5.40@8.00; cows. $3.00@4.85; heifers, $3.50@5.40; canners, $2.00@3.00; stockers and feeders, $3.00@4.75; Texas grass steers, $3.25@4.00; Texas fed beeves, $4.25@5.25.

Hogs—Receipts to-day, 46,000; 5@10c lower; top, $4.20; mixed and butchers, $4.00@4.15; good to choice, heavy, $4.05@4.20; rough heavy, $3.85@4.00; light, $4.00@4.15; bulk of sales, $4.05@4.15.
good to choice, heavy, $4.05@4.20; rough heavy, $3.85@4.00; light, $4.00@4.15; bulk of sales, $4.05@4.15.

Sheep—Receipts, 27,000; slow, 10c lower; native wethers, $3.90@4.70; western wethers, $3.90@4.40.

Lambs—Native, $4.00@5.60; western, $4.50@5.40.

South Omaha Live Stock.

South Omaha, Neb., Dec. 18.—Cattle—Receipts, 2,000; market steady. Native beef steers, $4.25@6.00; Western steers, $4.00@4.25; Texas steers, $3.60@4.15; cows, and heifers, $3.10@4.85; canners, $2.25@3.00; stockers and feeders, $3.60@4.70; calves, $3.50@7.00; bulls, stags, etc., $2.60@4.00.

Hogs—Receipts, 4,900; market a shade easier. Heavy, $3.90@4.00; mixed, 3.95@3.97; light, $3.97½@4.05; pigs, $3.85@3.95; bulk of sales, $3.97@4.00.

Sheep—Receipts, 100; market steady. Native muttons, $4.30@4.60; Western muttons, $4.00@4.03; stock sheep, $3.75@4.20; lambs, $4.25@5.25.

St. Louis Live Stock.

St. Louis, Dec. 18.—Cattle—Receipts, 3,000; market steady for natives, lower for Texans. Native shipping and beef steers, $3.20@6.70, with strictly fancy grades worth $7.25; stockers and feeders, $3.25@5.00; cows and heifers, $2,00@5.00; canners, $1.50@$3.00; Texas and Indian steers, $3.25@4.55; cows and heifers, $2.30@3.80.

Hogs—Receipts, 7,500; market a shade lower. Pigs and lights, $3.90@4.00; packers, $4.00@4.05; butchers, $4.05@4.15.

Sheep—Receipts, 1,500; market steady. Native muttons, $4.00@4.50; lambs, $5.00@5.85.

Kansas City Grain.

Kansas City, Dec. 18—Wheat—Sales by sample on track:

Hard—No. 2, nominally 64c; No. 3, 59@63c.

Soft—No. 2, nominally 69@71c; No. 3 red, 65½c.

Mixed Corn—No. 2, 29¾c; yellow, 29¾c; No. 3 mixed, nominally 28¾c; No. 4 mixed, nominally 29c; no grade, nominally 28½c.

White Corn—No. 2, nominally 29¾c; No. 3, nominally 29¼c; No. 4 white, nominally 29c.

Mixed Corn—No. 2, 29¾c; yellow, 29¾c; No. 3 mixed, 1 car poor 23½c; No. 4 mixed, nominally 22c.

White—Oats—No. 2, nominally 23c; No. 3 white, 22½@23c; No. 4 white, nominally 22c.

Rye—No. 2, nominally 48c; No. 3, nominally 47½c; No. 4, nominally 47c.

Chicago Grain and Provisions.

Chicago, Dec. 18.—No. 2 red, 68@70c; No. 3 red, 66@68c; No. 2 hard winter, 66c; No. 3 hard winter, 62@66c; No. 1 northern spring, 68@70c. No. 2 northern spring, 67@69c; No. 3 northern spring, 64@69c.

Corn—No. 2, 31½c; No. 3, 31@31¼c.

Oats—No. 2, 23c; No. 3, 22¾c.

Pork—$8.80; lard, $5.22½; short ribs, $5.25.

St. Louis Cash Grain.

St. Louis, Dec. 18.—No. 2 red cash, elevator, 69½c; track, 72c;.

Corn—No. 2 cash, 31c; track, 32c.

Oats—No. 2 cash and track, 24¼c; No. 2 white, 26@26½c.

Kansas City Produce.

Kansas City, Dec. 18.—Eggs—Fresh, 16c doz.

Butter—Creamery, extra fancy separator, 25c lb; firsts, 22c; dairy, fancy, 18c; store packed, 15c; country roll, 15@16c; packing stock, 14c.

Poultry—Hens, live, 5½c; old roosters, 15c each; young, 20c; ducks, 6c; geese, 5c; turkeys, hens, 7c; old toms, 6c. Pigeons, 60c doz.

Game—Prairie chicken, $5 per doz.; quail, 75c@$.1.00; venison saddles, 12@14c; wild turkey, 9@10c lb; wild geese, $4@5 per doz.; ducks, canvasback, $4 doz.; mallard, fat $4; common, $3@3.50 per mallard, fat $5; common, $3@3.50 per doz.; teal, fat $2.25, thin $1.50@2.00; mixed, $1.25@$1.50; red heads, $2.50; plover, $1. Frogs, 35c@$2. Rabbits, jack, 75c@$1; cottontails, 40@50c. Squirrels, 50c. Brant, $3 doz.

Vegetables—Home grown potatoes, 35@45c per bu in wagon loads; northern potatoes, 40@50c; sweets, 60@65c per bu. Onions, 55@65c per bu. Parsnips, 35@50c per bu.

Apples—Choice to fancy, $3.00@$4.00 per bbl; fair to choice, $2.00@3.00 per bbl; 65c@$1.00 per bu; culls, 25@40c per bu. California fancy, $1.65@1.85 per bu box.

McINTOSH & PETERS COMMISSION CO.,
Live Stock Commission Merchants.
Rooms 252-3-4 Exchange Building.
KANSAS CITY STOCK YARDS.
Correspondence and Consignments Solicited. Market reports furnished to FEEDERS and SHIPPERS.
REFERENCES:
National Bank of Commerce, Kansas City, Mo.
Inter-State National Bank, Kansas City, Kans.
Bank of Topeka, Topeka, Kans.
Security Bank, Eskridge, Kans.
Telephone 164 Hickory.

PILES
Fistula, Fissures, all Rectal Troubles quickly and permanently cured, without pain or interruption of business. Mr. Edward Somers, Castleton, Ill., suffered with bleeding, swelling and protruding piles for many years; doctors had given his case up as incurable; he was completely cured by our treatment in three weeks.
Thousands of pile sufferers who had given up in despair of ever being cured, have written us letters full of gratitude after using our remedies a short time. You can have a trial sample mailed FREE by writing us full particulars of your case. Address,
HERMIT REMEDY CO.,
Suite 736 Adams Express Building, Chicago, Ill.

LUMBER
at ONE-HALF PRICE
WE BOUGHT
The Omaha Exposition
and have 12,000,000 feet for sale.
Send us your bill for our estimate
Write for free Illustrated Catalogue No. 61 on general merchandise from Sheriffs and Receivers Sales. Address
Chicago House Wrecking Co. CHICAGO, ILL. or OMAHA NEB.

NORTHWESTERN
PRACTICAL PORTABLE
STEAM FEED COOKER.

A large durable steamer at a low price. Makes a good tank heater and well adapted for burning long wood, coal or cobs. We also have a Double Flue stove kettle of big capacity, and a large line of feed mills.
PRICES NOT ADVANCED.
DAVIS GASOLINE ENGINE WORKS CO.
WATERLOO, IOWA.

Please mention Kansas Farmer when writing our advertisers.

"PASTEUR" BLACK LEG VACCINE.

The original and genuine preventive vaccine remedy for blackleg. Officially endorsed in all the cattle raising States. Successfully used upon 1,500,000 head in the U. S. A. during the last four years. Write for official endorsements and testimonials from the largest and most prominent stock-raisers of the country. "Single" treatment vaccine for ordinary stock; "Double" treatment vaccine for choice herds.

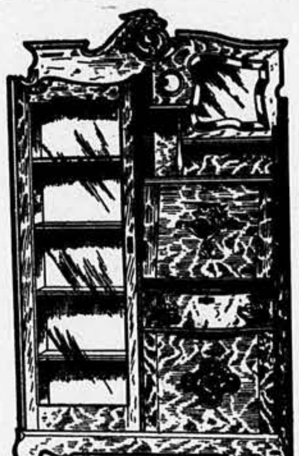
Registered "BLACKLEGINE." Trade Mark.

"Pasteur" single treatment Blackleg Vaccine ready for use; (no set of instruments required.) No. 1 (ten head), $1.50; No. 2 (twenty head), $2.50; No. 3 (fifty head), $6. Easily applied. No experience necessary.

PASTEUR VACCINE COMPANY, 52 Fifth Avenue, CHICAGO.
Branch Offices: OMAHA. FORT WORTH. SAN FRANCISCO.

JOHN.M.SMYTH.CO.
MAMMOTH MAIL ORDER HOUSE
150 TO 166 WEST MADISON ST CHICAGO

This Beautiful Combination Bookcase $13.95



No other house in America buys, sells and manufactures the quantity of Furniture we do, hence our extremely low prices. This particular offering is out of the ordinary, even for us, and should be promptly taken advantage of.

This elegant Combination Bookcase is a highly useful as well as ornamental piece of furniture. It is made of the fashionable golden oak or selected birch finished mahogany. The French beveled plate mirror is 12x12 inches. Between the writing desk and roomy lower cabinet is a swelled front drawer with heavy cast brass handles. The total height of the case is 70 inches and the width 44 inches. The glass door is of extra thickness and the four shelves are adjustable. $25 is what you might expect to pay for such a piece of furniture, instead of which, Our price is only $13.95

OUR MAMMOTH CATALOGUE In which is listed at lowest wholesale prices everything to eat wear and use, is furnished on receipt of only 10¢ to partly pay postage or expressage and as evidence of good faith the 10¢ is allowed on first purchase amounting to $1.00 or above.
OUR MONTHLY GROCERY PRICE LIST FREE.

The Kansas City Stock Yards.

FINEST EQUIPPED, MOST MODERN AND BEST FACILITIES.

The Kansas City market, owing to its central location, offers greater advantages than any other.

Twenty-Two Railroads Center at these Yards.
Largest Stocker and Feeder Market in the World.
Buyers From the..........

ARMOUR PACKING COMPANY,
SWIFT AND COMPANY,
SCHWARZSCHILD & SULZBERGER CO.,
JACOB DOLD PACKING COMPANY,
GEO. FOWLER, SON & CO., Ltd.,
CUDAHY PACKING COMPANY.

Principal Buyers for Export and Domestic Markets in Constant Attendance.

	Cattle and Calves.	Hogs.	Sheep.
Official Receipts for 1898	1,846,233	3,672,909	980,30
Sold in Kansas City 1898	1,757,163	3,596,828	815,58

C. F. MORSE, Vice-Pres. and Gen. Mgr. E. E. RICHARDSON, Secy. and Treas. H. P. CHILD, Asst. Gen. Mgr. EUGENE RUST, Traffic Manager.

Save Money and Feed BY USING THE Economy Feed Cooker

The best and most durable feed cooker on the market. Built of the best materials, with heavy cast-iron lining in furnace. Boiler is made of heavy galvanized steel. Capacity 25 to 100 gallons. Guaranteed as represented or money refunded. Write for free catalogue and price list. It will make you money.
ECONOMY MFG CO., 425 Hampshire St., Quincy, Ill.

SHORTHORNS FOR SALE—Twenty-seven cows and heifers—12 calves—Cruickshank—YoungMarys, Rose of Sharon, and others. Cows mostly sired by that grand Cruickshank, Royal Prince 100645; four bulls ready for service, sired by Young Mary bull, Glendon 119371, and by Jerry 125069; latter bull is head of herd. These are a fine lot, and as I have left the farm, MUST sell. Will take $60 each, cash, if the entire herd is taken soon. All are registered except calves. Theodore Saxon, 222 West Eighth Street, Topeka, Kans.

Please mention Kansas Farmer when writing our advertisers.

HORSES.

PROSPECT FARM.—CLYDESDALE STALLIONS, SHORTHORN CATTLE, and POLAND-CHINA HOGS. Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kans.

H. M. Satzler,
Burlingame, Kansas,
....BREEDER OF....
HEREFORD CATTLE,
BERKSHIRE SWINE,
COTSWOLD SHEEP.
STOCK FOR SALE.

DAVE RISK, Weston, Mo.,
LIVE ◦ STOCK ◦ ARTIST
Prices very reasonable. Satisfaction guaranteed.

The Poultry Yard

Coming Poultry Shows.

Secretaries of poultry associations are invited to send announcements of coming poultry events for publication in this colum.

Associated Fanciers of the Arkansas Valley—Mrs. H. P. Swerdfeger, secretary; W. S. Russel, of Iowa, Judge, Wichita, January 1-6, 1900.

Kay County Poultry Association—Geo. M. Carson, secretary; H. B. Savage, judge, Blackwell, Okla., January 17-20, 1900.

Butler County Fancy Poultry and Pet Stock Association—John C. Hoyt. secretary; J. C. Snyder, judge, Eldorado, Kans., December 26-30, 1899.

Republican Valley Poultry Association—Albert Smith, Superintendent, Cadmus, Nebr., December 27-29, 1899.

The Douglas County Poultry Association—Paul Learnard, secretary; Lawrence, Kans., December 28-30, 1899.

The Kansas City Fanciers—Thos. W. Southord, superintendent, Kansas City, Mo., January 17-22, 1900.

FEEDING MASH AND GRAIN.

F. J. MAC ENERNY, IN RELIABLE POULTRY JOURNAL.

The feeding subject is one that is quite extensively discussed, but as it is a large question it admits of frequent discussion. I have fed mash composed of from two to ten different ingredients, such as bran, middlings, meat meal, potatoes, beets, turnips, clover, ground stale bread, ground oats, and prepared poultry food, the latter itself being composed of three or four ground grains. This mash I have fed every day twice a day, some days all mash, other days no mash. This system of feeding also partly applies to green food. I have started with the fowls' ration composed daily of one-tenth vegetables and increased the proportion until I was feeding two-thirds of their ration composed of vegetables. As to grain food, the fowls were fed corn, oats, wheat, and barley, such grains being fed in varying proportions, while feeding part mash and part vegetable diet. I also discarded mash entirely and fed only the four grains mentioned, with two or three cabbages or a couple of beets and turnips daily at noon.

This feeding experiment extended over a period of ten months and was practiced on a good, laying strain of penned Barred Rocks, 25 in number. They were pullets when the experiment started, and, of course, graduated to henhood before its ending. I found that when mash was fed heavily that the [illegible] account was not as good as when result o[illegible] fed all grain with a lib- British army and [illegible]ges, turnips, or beets daily. Good results accrued in the feeding of a light morning mash, with a pint of grain in heavy litter (such as straw, hay, leaves, or excelsior) immediately after they cleaned up the mash, with a satisfying allowance of the three vegetables mentioned at noon, and another pint of grain in the litter three hours later, with a full feed of grain at night. In feeding the last meal at night, composed of mash, with morning feed of grain in the litter, vegetables at noon with one pint of grain in the litter, the result did not favorably compare with the all-grain and vegetable ration.

This, I think, is due to the quick passing from the crop of soft food and the rapid manner in which it is digested, as the gizzard does not consume much time in passing soft food. This rapid passing of the food leaves the hen the greater part of the night (especially in winter) with an empty crop and a hungry feeling. Consequently she is not thoroughly contented and no doubt frets until daylight, when she can get out and pick up a few stray kernels of grain until breakfast time. This without doubt influences egg production the wrong way, as a hen must be kept contented, and proper feeding and care will keep her at her best as an egg-producer.

I might add here that in the use of barley, wheat, oats, and corn, the best result obtained with corn, and if it were necessary to dispense with any one of the grains I should part with them in the order named, holding on to corn to the last, as it is a very necessary food for the maximum of egg production, especially in the winter. Eggs from corn-fed hens are richer, better flavored, and of good consistency. From this I do not wish to infer that a hen must be fed nothing but corn, but if it is judiciously blended with other food, results are gratifying. A fowl fed moderately on corn to the exclusion of other grains, except the by-product of wheat, such as bran and middlings, with an occasional mash of vegetables and bran, or middlings and vegetables with meat meal, or a combination of the four, will give good results.

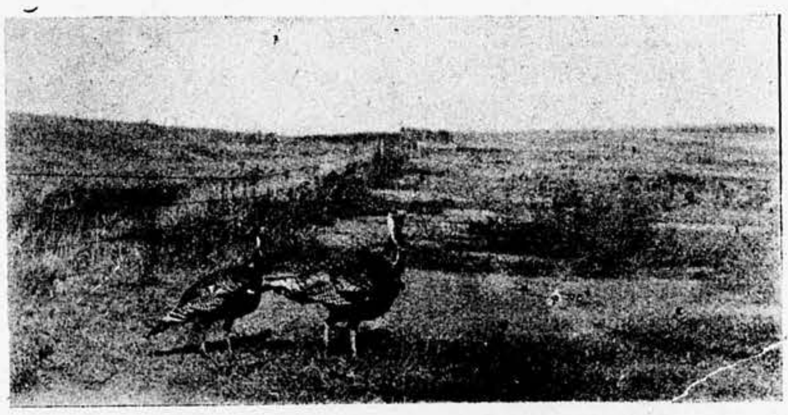
Corn supplies the greater part of the carbohydrates, the vegetables, bran, middlings, and meat meal furnishing the nitrogen. To sum up, mash feeding will pay, provided the time expended in preparing same is not taken into account or your time will not pay greater dividend in some other direction. However, the mash should be fed at morning or noon, never at night, and should be only one-half a feed, never allowing the fowls to have their fill. If you do they will, after filling themselves, give up all idea of producing eggs, merely tucking themselves together and finding a convenient place to loaf and take on flesh till next meal time.

Where fowls are fed three times daily, and it is more convenient to feed the mash at noon, as good results will be obtained. When the morning meal is mash, feed vegetables at noon, or vegetables in the morning when feeding mash at noon. You can let them have their fill of vegetables, as they will not eat too much. After each meal of vegetables or mash, allow one pint of grain, either corn, oats, wheat or barley, for every twelve hens or pullets, in heavy litter, with a full grain feed at night (as much as they will eat) in litter. Feed early enough to allow them time enough to scratch it out before roosting time. They will then perch contentedly, with a full crop and if any stray grain still remains in the litter they will be down off their perch the following morning at daylight, getting good, healthy, egg-producing exercise in trying to find it.

Mash at night is not a staying food. A hen requires something more substantial to carry her through the night, especially in cold weather. Fowls fed heavily on mash, particularly at night, are more liable to sickness and disease, especially roup (I fed the furnace nine cases), as it makes them soft and lacking in vigor. In addition to this it does not allow the gizzard enough exercise, and surely nature intended that a fowl should have a lot of grinding to do or she would have eliminated this organ when putting the hen together.

In my experience I have found cabbage, turnips, and beets to be the best and most convenient vegetables. I halve them and feed them impaled on nails driven through a board, the board lying flat on the ground with the sharp end of the nail up. In concluding I will say that I now feed corn, oats, wheat, and barley, rotating them or mixing one, two, three, or all four, keeping the fowls guessing as to what particular grain they are eating. This allows a great variation and the fowls always clean up their food in good shape. These grains are fed with three cabbages at noon one day, one-half dozen or more beets the next, and one-half-dozen turnips the third, feeding them in rotation, mixing them, or feeding all three with an occasional simple mash of bran and meat meal, or middlings and meat meal, mixed with water (not scalded) every second or third day for morning feed, and then not enough to satisfy them.

I can more profitably invest my time in other directions and do not consider it as paying me to use any considerable time in mixing fancy soups for fowls, as I do not think the few, if any, additional eggs are recompense enough for the time expended; but of course, if time is not taken into account, that gives it another complexion. In my manner of feeding, set forth in the foregoing, I consider time an important factor, and have concluded the maximum result in egg-producing procured at the minimum expenditure of time and labor.



A PRIZE-WINNER.

Reproduced from a photograph of the first prize-winner and one of his young toms, at the Kansas State Poultry Show, held at Topeka in January, 1899; owned by C. H. Clark, Delphos, Kans. See advertisement among poultry-breeders' cards.

Winter Feeding.

EDITOR KANSAS FARMER:—I have some bees and a part of them are light; can I feed them at this time of year without stimulating brood-rearing? Please answer in next issue of the KANSAS FARMER. C. STIMSON.

Amity, Colo.

If the weather is warm enough to feed liquid feed it is all right to feed them, but at this time of winter I should say it is not safe to feed liquid feed to bees in your locality, for it is apt to produce dysentery. As for stimulating them to brood-rearing to any extent, it will not do it at this season of year. I would carry them through until warm weather in early spring with candy, and feed liquid feed as soon as spring opens. Make your candy from granulated sugar and mold it right into the ordinary frame of the hive, and hang two of these frames of candy in each light hive, one on each side of the cluster of bees. This will carry them through until warm weather, but you should put them in chaff hives and give them the best protection possible.

"Grasp All and lose all." Many are so intent on "grasping all" that they lose their health. Hood's Sarsaparilla has helped many a business man on the road to success by making and keeping him healthy.

Hood's Pills are gentle, yet effective. 25 cents.

When writing any of our advertisers, please state that you saw their "ad." in Kansas Farmer.

CANDY CATHARTIC Cascarets REGULATE THE LIVER

A GOOD INCUBATOR is one of the best machines on the farm, and one of the greatest labor savers. It makes chicken raising easy and sure. Our machines are good, sure, safe and improved up to date. They have automatic regulators, safety lamp, tray adjuster, etc. Sold at low rates and ...FULLY GUARANTEED... Our new Catalogue gives descriptions, illustrations and prices, and a lot of interesting information about poultry raising. Send 6 cents for it. IT IS PUBLISHED IN 5 LANGUAGES. We also make plans for brooder houses. DES MOINES INCUBATOR CO., Box 83 DES MOINES, IOWA.

SEEDS AN POULTRY SUPPLIES. Seeds, bulbs and poultry supplies, T. Lee Adams, 419 Walnut stre Kansas City, Mo.

Italian Bees. Full colonies shipped any time during summer and safe arrival guaranteed. It will pay you to try my stock of Italian bees in the Latest Improved Hives Nothing will double in value quicker. A. H. DUFF, Larned, Kans

PAGE DOES ANY PERSON DISPUTE that Page Fence is a good fence? Many say it is the best. We make all styles and heights. PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.

STOCK FEEDERS listen to this and think before buying a feed grinder. There are thousands of Peerless Mills now in use. Grind ear corn and all grains fine or coarse. Make family meal or feed. We WANT AGENTS EVERYWHERE. Circulars, prices, &c. free. W. J. ADAM, JOLIET, ILL.

ECONOMY IS THE KEY TO WEALTH.

You can save money by buying your woven wire fence from us. WE SELL DIRECT TO THE FARMER At Wholesale Prices. We use only the best quality of steel wire, all galvanized; no small wires used; it's all interwoven; the stays can't slip. Write to-day for circulars and prices. ADVANCE FENCE CO. 130 Old St., Peoria, Ill.

Throw Away Those Pans.. You are losing time, labor and DOLLARS every week that a "SHELDON" will save. Adds quantity and quality to your dairy product. None equals the "Sheldon" in simplicity, workmanship and finish. Write at once for our special offer to first buyers and agents, it will surprise you. DON'T WAIT. Address, SHELDON CREAM SEPARATOR CO., 34 Clark St., CHICAGO.

Here is the Implement That You Want FOR YOUR LIGHT SOIL. It is Used by Progressive Farmers Everywhere.

The McColm Clod Crusher and Compress Field Roller. It crushes and grinds all clods, packs the soil without making a smooth, hard surface, no parts to wear or get out of repair. For particulars, address THE H. P. DEUSCHER CO., Hamilton, Ohio.

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. Catalogue 4 cts. GEO. ERTEL CO., QUINCY, ILL.

HATCH with the perfect, self-regulating, lowest priced first class hatcher—the EXCELSIOR Incubator Hatches the largest per cent. of fertile eggs at the lowest cost. Circulars free. Send 6c. for Illus. Catalog. GEO. H. STAHL, Quincy, Ill.

50 CHICKS From 50 Eggs The BANTAM Does it. Over 15,000 in use. Thousands hatch 45 to 50 chicks from 50 eggs $5 30 DAYS' Trial Before you pay a cent. Hot Water or Hot Air Send 4 cents for No. 95 Catalog of valuable information and testimonials. BUCKEYE INCUBATOR CO., Springfield, Ohio.

THE SURE HATCH INCUBATOR has late patented improvements that make them leaders. We make but one grade "the best." We have but one price "the lowest." We pay the freight. . . .

New Catalogue just out. It is chock full of practical information on the poultry question; tells how to raise broilers, or how to get eggs when eggs are high, etc. The book is finely illustrated. Until January 1, we mail the catalogue free to any address. SURE HATCH INCUBATOR CO., Clay Center, Nebr.

RUPTURE Positively & Permanently CURED No cutting, no pain, and no detention from business. You pay no money until cured. Consultation and examination FREE. Dr. ERNEST HENDERSON, 103 W. 9th St., Kansas City, Mo.

RUPTURE Sure Cure at home; at a small cost. No operation, pain, danger or detention from work. No return of Rupture or further use for Trusses. A complete, radical cure to all, (old or young), easy to use, thousands cured, book free, (sealed.) DR. W. S. RICE, Bx. 359, Adams, N.Y

GRIND YOUR GRAIN on a **SMALLEY MILL.** Neither you nor your stock will have any fault to find. Our mills have *great capacity* combined with *ease of operating* which is simply *wonderful.* Don't take our word for this—try one and be convinced. Special introduction prices in all new territory. Catalogue showing the famous *Smalley* line complete free *if you name this paper.*
SMALLEY MFG. CO., Sole Makers, Manitowoc, Wis.

Before Buying a New Harness
Send 5 cts. in stamps to pay postage on descriptive catalogue 100 styles of single and double *oak-tanned* Leather Harness to select from. Sold direct to the consumer at wholesale price. We can save you money.
KING HARNESS COMPANY, Mfrs.
220 Church St., Owego, N. Y.

An Ice Plow that any one can afford to buy. Our Double Row Plow is the cheapest, will cut faster and easier than any plow made. Does both marking and cutting. Cuts all sizes and depths. Will pay for itself in 2 days. Send for catalogue and prices. Made in three sizes.
JOHN DORSCH & SONS, 228 Wells St., Milwaukee, Wis.

ROOF YOUR CORN CRIB WITH Corrugated Iron.
Cheapest, Best and Most Easily Applied.
The Kansas City Roofing & Corrugating Co.,
218 and 220 West Third St., KANSAS CITY, MO

WRIGHT'S • CONDENSED • SMOKE
Smokes Meat Right. It is a liquid made by condensing hickory smoke. Applied with a brush or mixed with the brine when salting down meat. Gives meat a delicious flavor and protects it from insects. A 75c. bottle smokes from 250 to 300 pounds. Sold by druggists. Made by E. H. Wright & Co., 915 D. Mulberry St., Kansas City, Mo. Write for free book on curing meats and mention FARMER.

STEEL ROOFING
BRAND NEW
We have on hand 25,000 squares Brand New Steel Roofing. Sheets either flat, corrugated or "V" crimped.
Price per square of 10x10 feet or 100 square feet **$1.75**
No other tool than a hatchet or hammer is required to lay this roofing. We furnish with each order sufficient paint to cover, and nails to lay it, without additional charge.
Write for our free catalogue No. 61 of general merchandise bought by us at Sheriff's and Receiver's Sales.
"Our Prices are One-Half of Others."
Chicago House Wrecking Co.,
W. 35th and Iron Sts., Chicago.

50 YEARS' EXPERIENCE
PATENTS
TRADE MARKS
DESIGNS
COPYRIGHTS &C.
Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. Handbook on Patents sent free. Oldest agency for securing patents.
Patents taken through Munn & Co. receive *special notice*, without charge, in the
Scientific American.
A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, $3 a year; four months, $1. Sold by all newsdealers.
MUNN & Co. 361 Broadway, New York
Branch Office, 625 F St., Washington, D. C.

HENRY W. ROBY, M. D.,
SURGEON,
Residence Twenty-first St. and Kans. Ave. 730 Kansas Avenue, Topeka, Kansas.

GOLDOMETER for locating Gold, Silver and other minerals, in a pocket case; also rods and Spanish needles. Catalogue, 2c. stamp. B. G Stauffer, Dept K., F., Harrisburg, Pa.

VARICOCELE cured without knife, pain or danger. Illustrated booklet free. Call or write. DR. H. J. WHITTIER, 10 W. 9th St., Kansas City, Mo.

Ladies Our Monthly Regulator never fails. Box FREE. Dr. F. May, Bloomington, Ill.

BED-WETTING CURED. Sample FREE. Dr F. E. May, Bloomington, Ill

DR. J. H. SNODDY, Alton, Ill.

HOG CHOLERA
Positively prevented and cured by the
SNODDY REMEDY.
It is used by leading farmers and breeders. Indorsed and recommended by leading veterinarians and agricultural journals. It positively cures 90 to 95 per cent of infected herds. As a preventive, tonic, and appetizer, it has no equal. Any one can use it. A $5.00 case will treat 20 to 35 hogs. A $15.00 case—express prepaid—will treat 60 to 80 head.
Delays are Dangerous. Write to-day for full particulars and Dr. Snoddy's new booklet on Hog Cholera which are free.
Address
The Dr. J. H. Snoddy Remedy Co.,
Branch House: Des Moines, Iowa. -- Alton, Ill.

SANDWICH CORN SHELLERS
Are Recognized as Standard the World Over.
Unequaled by any Competitor.
THE ORIGINAL POWER SHELLER IN ALL SIZES, STYLES AND CAPACITIES.
was born in our factory in 1856 and as it was first in the field forty-three years ago, so it is first in the field today—first in **design, construction** and **everlasting satisfaction** to the buyer.
This is the day and age of specialists. Shellers have been our specialty for nearly a half century. SANDWICH SHELLERS are profitable to run. They work fast, shell clean, clean the shelled corn perfectly and last longer than any other.

80-page Catalogue Sent on Application.
SANDWICH MANUFACTURING CO., Sandwich, Ill.
BRANCHES: Council Bluffs, Ia., Kansas City, Mo., Bloomington, Ill., Cedar Rapids, Ia.

You Can Plant More Corn by one-third to one-half and do it easier, with less labor to yourself and your team with our
DAVENPORT "WIRELESS" CHECK-ROW CORN PLANTER

than in any other way. No re-setting and laborious stretching of wire at ends. No stakes to set. You never need to get off the seat. Effective on all kinds of ground—hills, holes and hollows. It simply can't go wrong. Plants so accurately that you can work your corn four ways if you want to. Won't slip or slide on a hillside; passes right over dead furrows without a skip. Makes a boy's job of corn planting. Ask your nearest dealer for the "Wireless," and don't let him shove an old wire machine on to you, simply because he happens to have one in stock. Insist on the "Wireless," for nothing equals the "Wireless." Send for our circulars and learn all about it before hand. Address,
THE IMPLEMENT MANFG. CO.
DEPT. O. DAVENPORT, IOWA.

LIGHTNING HAY PRESS AND SCALE
GUARANTEED STANDARD

KANSAS CITY HAY PRESS CO. 129 MILL ST. KANSAS CITY MO

DO YOU WANT A FARM OR A RANCH? 7,000,000 acres Ranch land—1,000,000 acres Farm land, located in NEBRASKA, KANSAS, COLORADO, WYOMING and UTAH. For sale by the UNION PACIFIC RAILROAD COMPANY at greatly REDUCED PRICES on ten years' time and only 6 per cent interest. LIBERAL DISCOUNT FOR CASH. Please refer to this paper when answering advt. B. A. McALLASTER, Land Commissioner, U. P. R. R. CO., Omaha, Neb.

The Popular Route
FOR ALL
..WESTERN POINTS..
Denver, Salt Lake.
UNION PACIFIC — THE OVERLAND ROUTE — WORLD'S PICTORIAL LINE.
San Francisco, Portland.
THE ONLY DIRECT ROUTE. THE BEST EQUIPPED ROUTE.
THE FASTEST ROUTE. THE SAFEST ROUTE.
For Time Tables, Folders, Illustrated Books, Pamphlets, descriptive of the territory traversed, call on or write F. A. Lewis, City Ticket Agent. or J. C. Fulton, Depot Agent, Topeka, Kans.

Santa Fe
The... California Route...
The short line having through car service, both Pullman and Tourist, over its own rails to California.
Send for illustrated book on California. Address...
T. L. KING, Agent,
TOPEKA.

If You Are Going
—TO—
St. Paul, Minneapolis,
Northern Lake Resorts
OR TO POINTS ON THE
NORTHERN PACIFIC OR....
GREAT NORTHERN RAILROADS..
TAKE THE ....TO....
MISSOURI PACIFIC RAILWAY
..OMAHA..
...WHERE...
DIRECT CONNECTION IS MADE WITH THE
CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA RY.

NOTE NEW SCHEDULE:
Lv. Kansas City.....9:15 p. m. via Mo. Pac. Ry.
" Leavenworth.....10:17 p. m.
" St. Joseph.....8:05 p. m.
" Atchison.....11:10 p. m.
Ar. Omaha.....6:50 a. m.
Lv. Omaha.....6:10 a. m. via C., St. P., M. & O.
Ar. St. Paul.....6:50 p. m.

ELEGANT EQUIPMENT AND QUICK TIME...
Try the New Fast Line.
SEE NEAREST MISSOURI PACIFIC AGENT FOR TICKETS, SLEEPING CAR ACCOMMODATIONS, ETC....
H. C. TOWNSEND, G. P. & T. A.,
ST. LOUIS.

[First published in Kansas Farmer, December 7, 1899.]

SHERIFF'S SALE.

In the district court of Shawnee County, State of Kansas.

C. M. Parke, plaintiff,
vs.
A. F. Hilton et al., defendant.

By virtue of an order of sale issued to me, out of said district court, in the above-entitled action, I will, on Tuesday, the 2d day of January, A. D. 1900, at 10 o'clock a. m. of said day, at the east front door of the court house in the city of Topeka, in the county of Shawnee, in the State of Kansas, offer at public sale, and sell to the highest and best bidder, for cash in hand, all the following-described real estate, to wit: A part of the southwest quarter of section number thirty (30), township number eleven (11), south of range number sixteen (16). east of the sixth principal meridian in Kansas, adjacent to the city of Topeka. Commencing at a point thirty-two and one-half (32½) feet southerly from the intersection of the centers of First avenue in the city of Topeka extended upon the said quarter section and the east line of the alley between Fillmore street and Western avenue in said city of Topeka extended as aforesaid, said point being in the east line of said alley; thence southerly along said east line of said alley extended eighty-two and one-half (82½) feet; thence at right angles easterly one hundred and eighty-five (185) feet; thence northerly at right angles eighty-two and one-half (82½) feet; thence westerly at right angles one hundred and eighty-five (185) feet to place of beginning. The said property is appraised at twenty-five hundred dollars ($2,500) and no bid less than two-thirds the appraised value will be taken. Lying and situate in the county of Shawnee in the State of Kansas.

The above-described real estate is taken as the property of said defendant, and is directed by said order of sale to be sold, and will be sold with appraisement, to satisfy said order of sale.

PORTER S. COOK,
Sheriff of Shawnee County, Kansas.
Nellis & Nellis, attorneys for plaintiff.

CATTLE.

MAPLE GROVE HEREFORDS.

Selected from herds of Gudgell & Simpson, Cross, Stannard, and Comstock. Headed by Garfield bull, Porter 43708. J. R. SMITH, Dunavant, Kans.

MAPLE LAWN HERD
Pure-Bred HEREFORD CATTLE

E. A. EAGLE & SON, Rosemont, Osage Co., Kans.

Herd headed by Gudgell, a son of Corrector. FOR SALE—Ten pure-bred bulls of serviceable age and ten yearling heifers. Also car-lot of high-grade heifer calves, and one car of high-grade bull calves.

GALLOWAYS
Are the original
POLLED BEEF BREED

For full particulars write to FRANK B. HEARNE, Secretary American Galloway Cattle Breeders' Association, Independence, Mo. If you want to buy a Galloway he can give you the address of breeders.

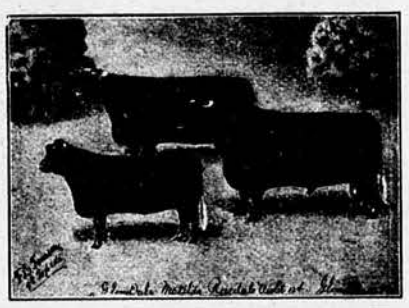
HEREFORD PARK HEREFORDS

Established 1884.

Sires in Service: Shadeland Dean 51364 and Oakwood Hesiod 3d 87527.

Fifty breeding cows in herd.

C. B. SMITH, Fayette, Mo.



GLENDALE SHORTHORNS, Ottawa, Kans

Leading Scotch and Scotch-topped American families compose the herd, headed by the Cruickshank bull, Scotland's Charm 127264, by Imp. Lavender Lad, dam by Imp. Baron Cruickshank. Twenty bulls for sale. C. F. WOLF & SON, Proprietors.

PEARL SHORTHORN HERD.

Golden Knight 108086 by Craven Knight, out of Norton's Gold Drop, and Baron Ury 2d by Godoy, out of Mysie 50th, head the herd, which is composed of the leading families. Young bulls of fine quality for sale. C. W. TAYLOR, PEARL, DICKINSON CO., KANS.

ELDER LAWN HERD OF SHORTHORNS.

Herd headed by GALLANT KNIGHT 12466. The herd females are Scotch, Scotch-topped, Bates and American families.

For ready sale, a few choice serviceable bulls, and bred cows and heifers. Address

T. K. TOMSON & SON, Dover, Kans.

POULTRY.

Barred and White Rock COCKERELS.

Ringlet and Empire Strains

Now is the time to buy, as I can sell you fine early hatched birds at $1 each, which will, later on, command from $3 to $5 each. Finest lot of youngsters I ever had. Pullets, 75 cents. Order quick and get the best.

T. E. LEFTWICH, Larned, Kans.

PURE-BRED Poultry.

Barred, and White Plymouth Rocks, Buff, and Partridge Cochins; Silver, and White Wyandottes; Light Brahmas, Black Langshans, Black Javas, Single Comb Brown, and White Leghorns, S. S. Hamburgs, Pearl guineas and Pekin ducks. Single birds, pairs, trios and breeding pens. Fowls for sale at all times. Eggs in season. Write me your wants. Circular free.

A. H. DUFF, Larned, Kans.

LIVE STOCK AUCTIONEERS.

J. N. HARSHBERGER,

LIVE STOCK AUCTIONEER, LAWRENCE, KAS Years of experience. Sales made anywhere in the United States. Terms the lowest. Write before claiming date.

R. E. EDMONSON, (late of Lexington, Kentucky and Tattersalls of Chicago, limited,) now located at 208 Sheidley Building, Kansas City, Mo., offers his services as Live Stock Auctioneer. All the herd and stud books. Wire before fixing dates.

.. J. N. BURTON ..
GENERAL ◆ AUCTIONEER.

FINE STOCK A SPECIALTY.

Abilene, Kansas.

W. Q. HYATT,
The Old Reliable Live Stock Salesman

Sales made anywhere. Terms, $10 for sales under $1,000, over that amount 1 per cent and expenses. References, the best farmers and stock-raisers of the West for whom I have made sales. Write before claiming dates.

Also, breeder of Poland-China hogs. Young stock for sale. Carbondale, Kans.

JAMES W. SPARKS,
Live Stock Auctioneer
Marshall, Mo.

SALES made anywhere on earth. Have been and am now booked for the best sales of high-class stock held in America. Write me for terms before making your dates. I have no other business. Terms within reach of all. Mention KANSAS FARMER.

WANTED
A 16-Hand Black Gelding to Mate Mine.

Must be five to eight years old, toppy, good style, action, and some speed; long body, high-headed, and rather leggy. Will give $150, if meets my views.

J. W. HIGGINS, JR., Hope, Kans.

450 High Class Shropshires 450

200 registered rams, 150 registered ewes, also ram and ewe lambs. Sheep are true type, and square built beauties. Prices reasonable.

☞ Foundation flocks a specialty.

Come or write. Address

W. J. BOYNTON, Breeder and Importer, Rochester, Minn.

Shropshires the Golden Fleeced

AMERICAN SHROPSHIRE REGISTRY ASSOCIATION

The largest live-stock association in the world. Twelve volumes of Record published. Volume 13 in press. The only Shropshire record recognized by the U. S. Government and Dominion of Canada to pass customs. Registered Shropshires are the most salable sheep in the universe. Blanks Free. Address

MORTIMER LEVERING, Secretary, Lafayette, Ind.

CENTRAL KANSAS STOCK FARM.—F. W. ROSS, Alden, Rice Co., Kas., breeds pure-bred Shorthorns, Poland-Chinas and Barred Plymouth Rocks. Stock for sale.

J. G. Peppard
1400-2 Union Avenue, KANSAS CITY, MO.

MILLET CANE CLOVERS TIMOTHY GRASS SEEDS.

SEEDS

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.

1839.——THE "CORRECTORS" ARE HERE. THE "IMPROVERS" ARE COMING.——1899.

WEAVERGRACE BREEDING ESTABLISHMENT.

The Weavergrace Past is Sealed With the Approval Of America's Stockmen.

The Weavergrace Future Promises A Record Excelling All Previous Achievements.

The Weavergrace present will bear the closest investigation and comparison. No Hereford is too good for Weavergrace. Neither time, labor, money nor any other factor within our reach will be spared in an open, honest, energetic effort to make the WEAVERGRACE HEREFORDS the best herd of beef cattle in the world. Nothing from the herd offered privately. All reserved for annual spring auction. Three hundred and sixty-four days of the year devoted to the general Hereford interests, one day to the sale of the Weavergrace Herefords.

I have an Unrivalled List of registered Herefords (both sexes) and of grade Hereford steers and females on file for sale throughout the country, in my office, New York Building, Chillicothe. There are several great bargains. All are invited to inspect this list, and spend a day at Weavergrace.

T. F. B. SOTHAM, Chillicothe, Mo.

Hereford literature on application; also a colortype reproduction (16x22) of an oil painting of Corrector, free to all who will frame it.

Sunny Slope Herefords.

100 HEAD FOR SALE.

CONSISTING of 32 BULLS, from 12 to 18 months old, 21 2-year-old HEIFERS, the get of Wild Tom 51292, Kodax of Rockland 40731 and Stone Mason 13th 42897, and bred to such bulls as Wild Tom, Archibald V 54433, Imported Keep On 76015 and Sentinel 76063, Java 64045.

40 1-year-old HEIFERS and 7 COWS.

These cattle are as good individuals and as well bred as can be bought in this country.

Finding that 400 head and the prospective increase of my 240 breeding cows is beyond the capacity of my farm, I have decided to sell the above-mentioned cattle at private sale, and will make prices an object to prospective buyers.

Address C. A. STANNARD, Emporia, Kans.

1882 Percherons, Shires, Clydes, Coachers 1900

60 HEAD NOW on sale of these breeds. Thirty black Percherons. Two importations in 1899, arriving July 7th and November 23d. These horses were selected with special reference to clean, heavy bone and good action. We have the first choice from sixteen of the leading breeders of France at our barns. These horses were personally selected by one of the firm who has had eighteen years of experience. If you want a good stallion, we can suit you. Barns are in town.

KEISER BROS., - - - KEOTA, IOWA, KEOKUK COUNTY.

WHEN WRITING ANY OF OUR ADVERTISERS PLEASE MENTION KANSAS FARMER.

PRIZE-WINNING ◆ POLAND-CHINAS ◆ AT ◆ AUCTION!

FROM THE SHOW HERDS OF
JAMES S. RISK, W. N. WINN & SON, and F. M. LAIL,
At the Fair Grounds, Springfield, Ill., January 11, 1900.

Drop a card for Catalogue of this great offering [headed by CHIEF I KNOW], to.....

Auctioneers: J. W. SPARKS, H. O. CORRELL, D. P. McCRACKEN.

FRANK D. WINN, Manager, 1500 Grand Avenue, Kansas City, Mo.