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KANSAS FARMER

ESTABLISHED IN 1863.
VOL. XXXVII. NO. 3.

TOPEKA, KANSAS, THURSDAY, JANUARY 19, 1899.

SIXTEEN TO TWENTY
PAGES—\$1.00 A YEAR.

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Cards will be inserted in the Breeders' Directory as follows: Four line card one year, \$15.00; six lines, \$23.00; ten lines, \$30.00; each additional line \$3.00. A copy of the paper will be sent to the advertiser during the continuance of the card.

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Young stock for sale. Your orders solicited. Address L. K. Haselstine, Dorchester, Green Co., Mo. Mention this paper when writing.

NORWICH VALLEY HERD OF SHORT-HORNS.
Imported Lord Lieutenant 120019 at head of herd. Young bulls and heifers for sale. Address D. P. Norton, Council Grove, Kas.

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Silver Spring Herd Poland-China Hogs. Headed by HADLEY'S MODEL T. Bred sows, gilts and boars of choicest breeding for sale. Address WALTER ROSWURM, Beman, Morris Co., Kas.

KANSAS HERD OF POLAND-CHINA SWINE—Has five choice yearling sows bred to my black U. S. boar, and one Tecumseh boar and thirty-five fall pigs by Model Sangers (20432) by Kleber's Model. They have typical ears and show fine markings. Address F. P. Maguire, Haven, Kas.

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

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BLACK LANGSHANS—
PURE AND FINE.
J. C. WITAM,
Cherryvale, Kans.

FOR SALE—Bronze turkeys, Barred Plymouth Rocks, Black Langshans and Embden geese. None but good stock shipped. Write for what you want. Mrs. James D. Dyer, Hoffman, Mo. Shipping point, Warrensburg.

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Buy now and save higher prices next spring. They are from birds that have won prizes wherever shown. For prices, etc., address J. P. Johnson, JUNCTION CITY, KAS.

GOLDEN WYANDOTTES EXCLUSIVELY.
Fifteen choice cockerels from high-scoring hens, mated to a 3 1/4 score bird. Write us for prices. They will be low for the birds.
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Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, White Cochins, Buff Cochins, Light Brahmas, Silver Wyandottes, White Wyandottes, Black Javas, Brown Leghorns, White Leghorns, Buff Leghorns, Silver Spangled Hamburgs, Pekin Ducks and Pearl Guinea, Single Birds, Pairs, Trios and Breeding-Pens. Extra Fine Breeding and Exhibition Birds. Also, Pet Deer. Prices reasonable. Write me for our wants.
A. H. DUFF, Larned, Kas.

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MAMMOTH BRONZE TURKEYS A SPECIALTY.

See what Judge Rhodes says of my turkeys:
DELPHOS, Kans., December 31, 1898.
This is to certify that I have this day scored Mr. C. H. Clark's Bronze turkeys, some eighty birds, and find them among the very best I have handled. They are strong in color of wing barring, breast and tail quite free of chocolate color. I find them strong in bone, and recommend Mr. Clark as a reliable breeder.
C. H. RHODES.

C. H. CLARK, Delphos, Kans.

EXCELSIOR POULTRY AND FRUIT FARM TOPEKA, KAS.

We are now well established in our new location, with plenty of free range, and the finest lot of young chicks we ever had. Stock growing finely, and will be ready to offer October 1, 1899. Write your wants and I will quote prices. A full line of Poultry Supplies.
C. B. TUTTLE, Proprietor.

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Empire, Lash and Conger Strains.
Eight years experience in breeding Rocks exclusively. Have the best young stock this year I have ever raised. Perfect, high-scoring, prize-winning birds. Two hundred pullets and cockerels now ready for shipment. A few cockerels from E. B. Thompson eggs for sale. Write for descriptive circular and prices. Printed recipe for making and using Liquid Lice Killer, 25c. Address
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D. TROTT, ABILENE, KAS., famous Duroc-Jersey, Jerseys and Poland-Chinas.

KAW VALLEY HERD POLAND-CHINAS—One of the best sons of Chief I Know at the head. Pairs and trios not akin; of all the leading strains. M. F. Tatman, Rossville, Kas.

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DUROC-JERSEY HOGS—Registered Stock. Send stamp for 64-page catalogue, illustrated. Prices and history.
J. M. STONEBRAKER, Panola, Ill.

Mains' Herd of Poland-Chinas.

Chief Tecumseh 2d, Kleber's Model, U. S. Model, Moorish Maid and Chief I Know strains. A selected lot of bred sows and young stock for sale at very reasonable prices. Over thirty years in the business. Stock equal to any. Satisfaction given.
JAMES MAINS,
Oskaloosa, Jefferson Co., Kas.

M. C. VANSSELL, Muscotah, Atchison, County, Kansas, Breeder of Pure-bred Poland-China Swine and Short-horn Cattle of the most desirable strains.
For Ready Sale Thirty Poland-China Bred Sows

One and two years old, bred for fall farrow; very choice; price low if ordered soon; must make room for 170 pigs now on hand. Come and see or write.

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Thos. Symms, Prop., Hutchinson, Kas.

Herds boars, Darkness Quality and Reno Wilkes. For ready sale 46 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.
F. L. and C. R. OARD, Proprietors,
HEDGEWOOD HERD OF POLAND-CHINAS VASSAR, KANSAS.

Popular Blood. Individual Merit.
Brood sows of the most popular strains and individual merit. The best that money can buy and experience can breed. Farm one and one-half miles south and half mile east of Vassar, Kas., on Missouri Pacific railroad.

PLEASANT VALLEY HERD REGISTERED POLAND-CHINA SWINE
For sale, King Perfection 4th 18744 S. and Lambing Ideal 14058 S. Also sows bred to above boars or Dandy U. S. by Frazur's U. S. by Frazur's Black U. S., dam Black Beauty by Ben Harrison, sire Charley F., brother to Look Me Over. Write for particulars. Address either
W. E. JOHNSON, E. A. BRICKER,
Colony, Kas. Westphalia, Kas.

SWINE.

CRESCENT HERD POLAND-CHINAS.

Boars and gilts for sale.
S. W. HILL, Hutchinson, Kas.

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

D. L. BUTTON, North Topeka, Kas., breeder of Improved Chester Whites. Stock for sale. Farm 3 miles northwest of Reform School

Standard Herd of Poland-Chinas

Has some fine sows, 1 year old this fall, sired by Tecumseh Chief (he by Chief Tecumseh 2d), and are bred to Look Over Me (he by Look Me Over); also, an extra lot of Spring Gilts, bred the same, and some good Spring Males of the same breeding. Come and see, or write and get prices. Wm. McGuire, HAVEN, KAS.

H. W. CHENEY, North Topeka, Ks. POLAND-CHINAS

of the fashionable prize-winning Chief I Know strain. Cheney's Chief I Know at head of herd. Pigs for sale. Prices low.

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.

VERDIGRIS VALLEY HERD PEDIGREED POLAND-CHINAS.
Two hundred head, four herd boars, 150 spring pigs. An extra lot of September boars and gilts for sale. Prices reasonable. Farmers and Stock Hog Raisers cordially invited to write or visit us.
W. A. WAIT & EAST,
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Wamego Herd Imp. Chester Whites and Poland-Chinas. Mated for best results. Also Barred Plymouth Rock chickens and eggs for sale. Correspondence or inspection invited. Mention FARMER.
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—Breeders of—
Short-horn Cattle and Poland-China Swine Of the Best Strains.
Stock for sale. Correspondence and inspection invited.

Nation's Poland-Chinas.

Fifty boars and gilts for this season's trade. My herd boars consist of Darkness Quality 14361, Princeton Chief 14543, Col. Hidestrotcher 37247 and Standard Wilkes. My sows are splendid individuals and of the right breeding. Personal inspection and correspondence invited.
LAWRENCE NATION, Hutchinson, Kas.

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Young boars old enough for service, also sows and gilts bred and unbred for sale. Sired by 2d Seven Oaks, Col. Mills 45718, Prince Majestic 45600 and others. Write for prices, or come and inspect stock.
MANWARING BROS., Lawrence, Kas.

SILVER CREEK HERD SHORT-HORN CATTLE.

Scotch and Scotch-topped, with the richly-bred Champion's Best 11471 in service. Also high-class DUROC-JERSEY SWINE. Can ship on Santa Fe, Frisco and Missouri Pacific railroads.
J. F. STODDER, Burden, Cowley Co., Kas.

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Herd Boars are Grand Sons of J. H. SANDERS and SHORT STOP, the World's Fair Prize Winner. Bred to 20 large mature sows of Cowing Black U. S. and Black Hess blood. We aim to produce the money-makers, not sacrificing size and feeding qualities to fancy points. Choice young stock for sale at reasonable prices.
M. L. SOMERS, Altoona, Kas.

SWINE.

BERKSHIRE, Chester White, Jersey Red & Poland China Pigs, Jersey, Guernsey & Holstein Cattle, Thoroughbred Sheep, Fancy Poultry, Hunting and House Dogs. Catalogue.
S. W. SMITH, Cochranville, Chester Co., Pa.

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Five Poland-China boars for sale at prices lower than we have ever offered. Two by Highland Chief, he by C. T. 2d, one by Knox All Wilkes, two by Silver Chief 2d. Anybody wanting a boar write at once.
DIETRICH & SPAULDING,
Richmond, Kas.

BLUE MOUND HERD BERKSHIRE SWINE.

Herd boars, Victor Hugo 41799 (sire imp.), Barkis 30040 (weight 800 lbs.), Prince Jr. 17th, from World's Fair winner. Choice pigs from five different strains. Also bred Hampshire sheep, M. B. turkeys and B. P. Rock chickens. Write.
Allen Thomas, Blue Mound, Linn Co., Kas.

W. F. GOODE & SONS, Lenexa, Johnson Co., Kas., breeders of Pure-Bred Poland-Chinas. For sale now a grand lot of pigs by Combination F. F. 18069. He combines the "Great families"—Chief Tecumseh 2d and Black U. S. We have the produce of the greatest Poland-China hogs in the world always on hand. Prices moderate.



CATTLE.

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

NORWOOD SHORT-HORNS—V. R. Ellis, Gardner, Kas. Rose of Sharon, Lady Elizabeth and Young Marys. Richest breeding and individual merit. Young bulls by Godwin 115676 (head of Linwood herd). Sir Charming 4th now in service.

MAPLE LAWN HEREFORDS.
E. A. Eagle & Son, Props., Rosemont, Osage Co., Kas. For sale, five young pure-bred bulls of serviceable age. Also one car-load of high-grade cows and one car bull calves.

Geo. Groenmiller & Son, Centropolis, Franklin Co., Kas., Breeders of Red Polled Cattle and Cotswold Sheep. Buff and Partridge Cochins. Light Brahmas, Brown S. C. Leghorns and Golden Wyandottes. A few seven-eighths Red Polled bulls for sale.

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.

D. P. NORTON, Breeder of Registered Shorthorns, COUNCIL GROVE, KANSAS.

Imp. British Lion 133692 and Imp. Lord Lieutenant 120019 in service. Sixty breeding cows in herd. Lord Lieutenant sired the second prize yearling bull at Texas State Fair, 1898, that also headed the second prize herd of bull and four females, any age, and first prize young herd of bull and four females.

RIVERSIDE STOCK FARM.

Percheron and Roadster Horses and Shetland Ponies; also one Denmark Saddle Stallion; also Shorthorn Cattle. Stock of each class for sale. Also a car-load of young Shorthorn bulls for sale. Pedigrees guaranteed. Address
O. L. THISLER, Chapman, Kas.

JACKS FOR SALE.

I have for sale twelve Jacks, aged 3 and 4 years next spring. Their breeding is from Spanish Kentucky and Tennessee bred Jacks and Jennies, black with white points.
S. O. HINGSTON,
Richmond, Okla.

Agricultural Matters.

Alfalfa Hay as a Pork Producer.

F. C. Burtis, Kansas Experiment Station. Alfalfa hay is worth \$17 per ton when fed with Kaffir corn to fattening hogs, according to the result of experiments now under way.

To obtain further information on Kaffir corn as a pig feed and ascertain to what extent alfalfa hay could be used to balance up the ration of fattening hogs, quite extensive pig feeding experiments are under way at our experiment station again this winter.

Sixty spring shoats averaging 125 pounds apiece were arranged into six equal lots. From November 24, the beginning of the experiment, to December 29, a period of five weeks, lot 1 had eaten 2,334 pounds of Kaffir corn meal and 216 pounds of alfalfa hay and made a gain of 511 pounds; lot 2 had eaten 2,314 pounds of Kaffir corn meal and 239 pounds of alfalfa meal (alfalfa hay ground); lot 3 had eaten 2,343 pounds of grain, consisting of four-fifths Kaffir corn meal and one-fifth soy bean meal, and made a gain of 592 pounds; lot 4 had made a gain of 386 pounds on 2,070 pounds of whole Kaffir corn; lot 5 made a gain of 385 pounds on 2,170 pounds of dry Kaffir corn meal; lot 6 made a gain of 403 pounds on 2,405 pounds of Kaffir corn meal that was wet with water when fed. The pounds of pork produced from each bushel of grain was as follows: Kaffir corn meal and 5 1/2 pounds alfalfa hay, 12.28; Kaffir corn meal and 5 3/4 pounds alfalfa meal, 12.39; Kaffir corn meal four-fifths and soy bean meal one-fifth, 14.35; whole Kaffir corn, 10.44; Kaffir corn meal fed dry, 9.92; Kaffir corn meal wet when fed, 9.36.

Considering the gain of lot 1, fed on Kaffir corn and alfalfa hay, over that of lot 5, fed on Kaffir corn meal alone, and taking the price of pork at 3 cents and Kaffir corn meal at 50 cents per hundredweight, the alfalfa hay made a saving which made it worth \$17 per ton. Or, in other words, by feeding 8 3/4 pounds of alfalfa hay along with each bushel of Kaffir corn, 7 cents per bushel was realized from the Kaffir corn. On the same line of figuring, the soy bean meal was worth \$35 per ton. These figures must be taken with due allowance until repetitions of the experiment give more extensive data to judge from. It is not to be understood that the value is in the little alfalfa added, but it enabled the pig to utilize the Kaffir corn to that much better advantage.

The alfalfa hay fed in our experiment was from the fourth cutting and was fine and green and just the quality for the purpose. Six pounds are fed night and morning and a little over half is eaten. We charged the pigs with all that was fed. The hay is fed in a large flat trough and the meal from a separate trough from the grain, and both are fed dry.

The feeding of alfalfa hay to shoats and brood sows is no new thing to many Kansas farmers, and many have reported astonishing results, and a few have fed it to fattening hogs; but Kansas has yet to realize its great value for this purpose, and we hope to fully bring this out in future experiments. The results given of the present experiment cover only thirty-five days, and for that time hogs will do fairly well on corn and water alone, but from now on their gains will not be so good, and at the end of another five weeks the results in favor of the alfalfa-fed lot will be still greater. If the shoats weighing 75 pounds had been used in the experiment the alfalfa would have been of still greater value.

When many farmers state that they are realizing from \$40 to \$50 per acre a year from their alfalfa they are ridiculed by many, but this is not at all impossible on a small amount if it is utilized properly. This winter thousands of bushels of high-priced corn is being saved from going into low-priced hogs by roughing the hogs through on alfalfa hay and corn.

The "Second Famine in Russia."

The humane world had hoped to be spared the contemplation of another famine in Russia, such as called forth the sympathy and the aid of mankind in 1891-'92. Reports have been given out that this year's wheat crop is the greatest ever known and that the poor as well as the rich are to be fed to the throat with cheap bread. The London Globe of December 15, 1898, dispels this picture of plenty and at the same time destroys the argument which has made prices low to the farmer. That journal says:

"It is reported from St. Petersburg that travellers arriving there from the interior of Russia, and especially from

the Volga provinces, are bringing in the most terrible accounts concerning the state of affairs in the famine-stricken districts. One traveller, who has quite recently arrived at St. Petersburg from the government of Samara, says that the moujiks are already now suffering the pangs of hunger in the fullest sense of the word, and that bread made out of various injurious ingredients is to be met with everywhere. The natural consequence of this is that acute stomachic disorders, typhus, severe forms of inflammation of the bowels, and such complaints, are beginning to carry off great numbers of persons; this is simply repetition of what happened in the famine of 1891 and 1892. Men, women, and children, swollen out either by hunger or by eating different unwholesome compounds as a substitute for bread, are to be found wandering like phantoms about the famine-stricken villages. The cattle are dying from want of fodder, or are being killed for the simple value of their hides. Fuel is also lacking; clothing is threadbare and scanty, while no work is to be met with anywhere. On all sides this calamity is compared with the grievous famine of 1891-'92, and it is called the 'Second Famine,' as it daily becomes clearer that the Russian peasants will have to undergo this winter far greater privations than those of seven years ago. A proof of this is seen in the fact that this time even the better-class peasants have absolutely nothing; neither potatoes, cabbages, cucumbers, nor milk, for so many of their cows have succumbed to the want of fodder. The rich and middle

most grievously afflicted, but Saratoff, Simbirsk, Toula, Oofa and Ryazan are nearly in as sad a plight. The Czar has now sent several of his intimate friends into the provinces to report to him personally what they see and the causes of this fresh calamity."

The effect of this state of affairs on prices of breadstuffs, say in June or July, 1899, may be a surprise to 'bears' on the grain markets, especially in view of the established fact that the crop now in process of consumption met such a reduction of reserves as to make it necessary that it furnish an ordinary thirteen months' supply.

Dietary Studies in Chicago in 1895 and 1896.

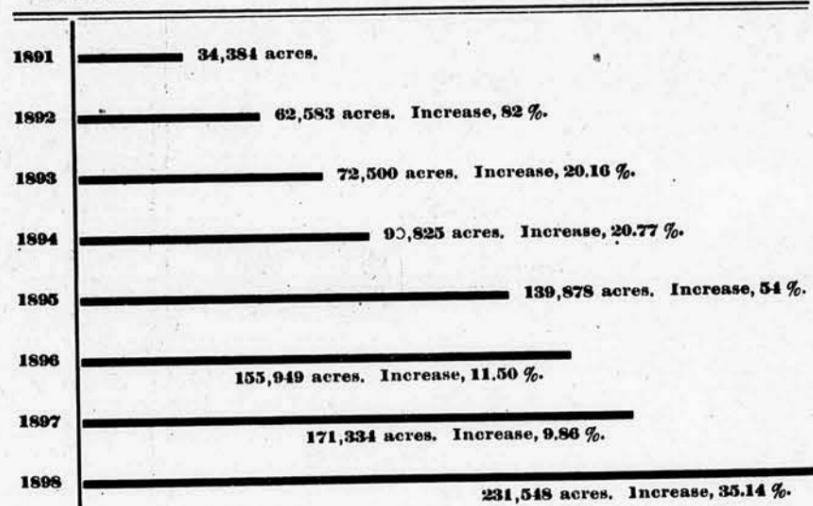
The United States Department of Agriculture has in press and will soon issue Bulletin No. 55, Office of Experiment Stations, entitled "Dietary Studies in Chicago in 1895 and 1896." These studies were conducted with the co-operation of Miss Jane Addams and Miss Caroline L. Hunt, of the Hull House, and are reported by Prof. W. O. Atwater, special agent in charge of nutrition investigations, and A. P. Bryant.

The bulletin embodies the results of dietary studies among families of Italians, French Canadians, Russian Jews, both orthodox and unorthodox or liberal, and Bohemians, and also the results of dietary studies of three American families made for comparison. These latter families were in comfortable circumstances, but endeavored to economize in

ALFALFA IN KANSAS.

WONDERFUL INCREASE IN ITS ACREAGE.

Diagram showing the comparative acreage of alfalfa annually for eight years, beginning with 1891 (when the crop was first returned by assessors) and ending with 1898.



J. D. Coburn
Secretary State Board of Agriculture.

classes among the moujiks have all vanished in many districts, and all are alike reduced to actual beggary; in fact, that peasant is indeed considered to be rich if he has anything left in the way of cattle. An idea of the extent to which the famine of 1891 and this 'Second Famine' have devastated the farmsteads of the peasants can be seen in the following concrete example. In 1891, Nikolas Poushkov, a rich peasant of the Government of Samara, possessed 15 horses, 25 cows, 180 sheep, and 9 swine; after that first famine there remained to him only 8 horses, 12 cows, 70 sheep, and 4 head of swine. In the present famine almost all this peasant's cattle had perished by the approach of autumn, and at the present moment the farmyard of the once prosperous peasant can boast of only one horse and a half-starved cow, while not one single sheep or pig has survived.

"It was not to be wondered at that there has been a great influx of workmen into the town of Samara, and that they are almost willing to work for bread alone. Some of them have gone so far in their despair as to beg to be locked up in prison 'as a mercy,' for there they know they would have a roof over their heads to shelter them, and a piece of black coarse bread, the usual prison fare. The police are in consequence busily engaged every day in arresting, sorting, classifying, and dispatching hundreds of these fugitives to their wretched, famine-stricken villages. The official reports describe the activity of the police as 'Struggling with street mendacity,' and the sufferings of the starving moujiks are thus glossed over. The Government of Samara is perhaps the

their food consumption in order to increase their expenditures in other directions.

The purpose of these studies was to obtain information regarding the condition of living and the pecuniary economy of the food of the poor of different nationalities residing in the worst congested districts of Chicago. The plan involved the selection of groups of families, each group representing a nationality, and each family being more or less typical of the people of that nationality in one of the most densely populated districts of the "West Side." The data sought included the character, amount, and cost of the food consumed during a given length of time; the age, sex, and occupation of the different members of the family; the number of meals taken by each person; and, as far as possible, the financial and hygienic conditions of the family at the time of the study. From the above and the data for the amounts of food materials, and from the composition as found by analysis or assumed from tables of average composition of similar materials, the total amount of protein, fats, and carbohydrates consumed and the amounts per man per day were computed.

While the results obtained are not sufficient to warrant sweeping conclusions, they are, however, sufficient to indicate the existing dietary conditions among the foreign population residing in the "West Side" of Chicago.

The report shows that the Italians in Chicago and Italy consumed about the same amounts of protein and carbohydrates, but the former consumed more fat than the latter. The French Canadians consumed about the same amounts

Faith in Hood's

The Great Cures by Hood's Sarsaparilla Are Indeed Marvelous.

"My husband suffered with stomach trouble so bad at times he could not work. He has taken Hood's Sarsaparilla and it is helping him wonderfully. He also had a scrofulous humor but Hood's Sarsaparilla cured this and he has had no trouble with it since. My little boy, too, has been taking Hood's Sarsaparilla and it has given him a good appetite. We have great faith in Hood's Sarsaparilla." MRS. J. H. EDWARDS, 50 Edinburg St., Rochester, New York. Be sure to get Hood's because

Hood's Sarsaparilla

Is the best—in fact the One True Blood Purifier. Sold by all druggists. \$1; six for \$5.

Hood's Pills are the best after-dinner pills, aid digestion. 25c.

of protein and other nutrients as similar families in Massachusetts and Canada. In every case the fuel value was quite high. Little difference is observed in the amount and kind of nutrients consumed by the orthodox and unorthodox Russian Jews in Chicago. Although the orthodox Russian Jews ate no pork, the total fat obtained was practically the same as in the case of the unorthodox Russian Jews, and was considerably larger than the amount consumed by Russian laborers near Moscow.

The families in the congested regions of Chicago did not differ greatly in the amount and kind of nutrients consumed from families in similar districts of New York.

A comparison with the dietary studies of mechanics' families made in different regions of the United States shows that the amount of protein consumed by the foreign families in Chicago was as large, and the fuel value nearly as large, as was found in the diet of comfortably nourished men doing moderate muscular work. In many instances, even among families of more comfortable circumstances, the houses were untidy and the food did not appear appetizing. The need of training in housekeeping and cooking was very apparent.

The cost of a diet may be lessened by consuming less fruit, cheaper cuts of meat, and fewer kinds of vegetables. Fruits add comparatively little to the food value of a diet, and the cheaper cuts of meat are as nutritious as the more expensive cuts. While vegetable foods are apparently essential to a well regulated diet, no marked advantage is due to a great variety of vegetables. Wheat flour in the form of bread, etc., is one of the most nutritious and cheapest foods.

The conditions of the families in the congested districts in all cities can undoubtedly be improved by education. The housekeeper should be taught how to prepare and serve food so as to make it more attractive and wholesome.

The bulletin contains numerous tables showing the cost and composition of the food used in the studies, the number of meals taken, etc.

The bulletin is not for miscellaneous distribution. A limited number of copies will be turned over to the Superintendent of Documents, Union Building, Washington, D. C., who will hold them for sale according to law at 5 cents per copy.

Farmer's Handy Feed Cooker.

Reader's attention is called to this device, which is sold at \$12.50 for 50-gallon capacity. By feeding poultry and animals cooked food during winter at least one-third of the feed is saved; also hav-



ing stock in a healthy condition, preventing hog cholera among your hogs and insuring the hens laying freely during the winter months. On application to the Empire Manufacturing Co., Quincy, Ill., a catalogue giving full description, may be obtained. They are made in all sizes.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

MARCH 3—Grant Hornady Live Stock Co., Fort Scott Kas., Herefords, at Kansas City, Mo.

THE PREVENTION OF BLACKLEG IN CATTLE.

Dr. Paul Fischer, in *Industrialist*.

Blackleg is an infectious disease that confines its ravages to certain restricted areas. Its direct cause is an anaerobic motile bacillus with distinctly rounded ends, more or less club- or spindle-shaped in form and frequently containing spores. In blackleg victims this bacillus is found principally in the emphysematous tumors of the affected muscles and subcutaneous connective tissue, in the hepatic secretions, and sparingly in other parts of the body. The blood itself does not contain the bacilli until some time after death.

The blackleg bacillus, or clostridium, is a facultative parasite and hence thrives under certain conditions outside of the animal body, in the soil. A damp soil, rich in humus, seems best adapted to its growth and preservation. The warmer seasons of the year, spring, summer, and autumn, but especially the latter, when the upper layers of the ground are dried out and the ground water stands low, show the greatest number of outbreaks of blackleg. Just why this should be so can not at present, perhaps, be fully explained. It seems however to be a fact based on abundant careful observations and is in harmony with observations made regarding other infectious diseases that have an epidemic character.

AGE OF CATTLE.

Blackleg attacks principally young cattle in good flesh, occasionally sheep and goats. Guinea pigs can be artificially inoculated, and in horses, asses, white rats and a few other animals local lesions only can be produced. Pigs, dogs, cats, and man are immune, or at least practically so. I have observed one case in a pig.

Among cattle, animals in good flesh and between the ages of six months and four years are most susceptible, but cases have come under my notice where the victims were much under six months of age, and once a fatal case in a calf ten weeks old was observed (July 25, 1898).

Why younger animals are not affected is stated by Arloing to be due to the animal nature of their food. The fact that older animals are not affected can be explained by assuming that they experienced a light but unobserved attack while young and thus became immune against a second attack. In support of this theory it might be stated that older animals that were raised in districts free from blackleg, when brought into blackleg areas suffer just as younger animals do.

KIND OF DISEASE.

Blackleg is a wound-infection disease—being caused, invariably, by the entrance of the bacilli into the subcutaneous or submucous tissue through fresh wounds. These wounds may be in the skin or in the mucous membranes of the respiratory tract or alimentary canal. Infection no doubt takes place most frequently through the alimentary canal; wounds in this apparatus being easily produced by rough food, and besides, it is well known that the contents of the alimentary canal of blackleg victims often contain the bacilli in large numbers.

From a sanitary point it might be mentioned that the blackleg clostridium, or rather its spores, are exceedingly tenacious of life, that they can withstand exposure to the boiling water temperature for hours, and can successfully resist the destructive action of most disinfectants of the strength employed for ordinary disinfecting purposes.

SPORES LIVE LONG.

The buried cadavers of blackleg victims will retain active spores for at least six months, and probably for a longer time. By this means new blackleg areas, even though they may be temporary only, are constantly being created. The most important sanitary measure, therefore, would be to insist on the destruction, by burning, of all blackleg carcasses on the spot where the victim died, and within twenty-four hours of the time of death. Even during this short time abundant opportunities would be given buzzards, crows, and other carrion feeders to scatter infected material and thus aid in spreading the disease. Dead animals should be burned on the spot where they died, because careless transportation, and we must always reckon with this, would simply be

another factor in aiding dissemination of the infectious principle.

SYMPTOMS—PREVENTION.

It is unnecessary, in this place, to discuss the symptoms of this disease, beside stating that it is characterized by its noncontagiousness, its rapid and usually fatal course, death nearly always setting in from one and one-half to three days after the appearance of the first symptoms.

This rapid course, in addition to the fact that no practical therapeutic remedies are known to us, gives the subject of prevention a special interest. The cheapest and most effective way to prevent any disease, when we know its cause, is to protect susceptible animals from exposure to it. Effective as this procedure would be it is not always practicable.

It would entail the necessity of discarding from pasture purposes large tracts of grass lands that are useless for any other purpose. In more densely populated countries cultivation of such soils, stirring the particles of earth, pulverizing them and successively exposing them to the disinfecting influence of the sun's rays and permitting the oxygen of the air to circulate through the loosened particles, is a very rational method of procedure, but it is impracticable on the grazing lands of our Western States.

In case of most diseases, a vigorous constitution is in itself a great protection. In blackleg, however, we unfortunately come face to face with an enemy where a vigorous constitution is apparently a direct disadvantage.

Another means of guarding against disease is to gradually accustom or inure the body tissues to the disease-producing influences. We could mention many natural instances of this kind. Yellow fever in human beings and Texas or splenic fever in cattle are the best-known examples. Blackleg could no doubt be placed with these diseases, although the animal tissues are not in all cases so successfully inured. But it is known that cattle from districts free from blackleg, when brought to infected regions always suffer greater losses in numbers than do native cattle. Still, this would not, at the present time, at least, solve the question of prevention.

It is known that blackleg is a wound-infection disease and that infection can take place through wounds only—hence the prevention of these wounds, which would necessarily have a limited application, would serve to lessen the number of cases. Having clean ranches, and, in case of stable feeding, the use of carefully prepared food, would be factors worth considering. The influence of barb-wire fences I will not discuss now.

INOCULATION.

A last resort is preventive inoculation.

Preventive inoculation for infectious diseases is nothing new. At the close of the last century Jenner brought into general use vaccination with cowpox to protect against smallpox in human beings. The Chinese seem to have practiced protective inoculation against this disease for more than a thousand years before the Christian Era.

On what principle does the practice of protective inoculation rest? In case of a great many infectious diseases it has been noticed that when animals have once recovered from an attack they can successfully resist a second attack. In other words, they are immune. Whether the disease from which the animal recovered was of a severe or a mild type, the immunity produced remains the same, and continues for the same length of time, weeks, months, years, or a life time, depending on the disease in question. In some cases a successful recovery from a mild disease will protect against another severe but related disease, as seems to be the case with cowpox and smallpox; an attack of the former protecting against an invasion by the latter.

To discuss and determine the cause of the resulting immunity, whether it is explained by the so-called exhaustion theory of Pasteur and Klebs, or the so-called hypothesis of retention whose principal champion was Chauveau, and not to mention the fantastic phagocytic theory of Metschnikoff, our limited space forbids.

We know that many infectious diseases attack most individuals of a susceptible species but once, the animal being immune thereafter for a longer or shorter period, and that it is immaterial whether the attack was severe or extremely mild. We also know that in exceptional cases animals of this kind may be attacked twice by the same disease, the second time even more severely than the first. Besides smallpox, cowpox and sheepox, footrot in sheep, foot and mouth disease, pleuro-pneumonia, anthrax, swine plague, the disease known in England as red soldier, and

others, blackleg may be mentioned in this connection.

IMMUNE ONE YEAR.

An animal that has once recovered from an attack of blackleg possesses an immunity against further attacks for a certain length of time, whether the first attack was severe or mild. Whether it was due to a natural infection or to an artificial inoculation, the result remains the same, the animal is made immune for a period of time varying, no doubt, with each individual, but estimated from numerous reliable experiments to be about one year.

Animals treated in this way can safely be turned on infected pastures.

WHAT IS INOCULATION?

Acquired immunity can be brought about in various ways. The fundamental principle in each case, however, consists in the production of a mild form of the disease by means of inoculation, or vaccination as we may call it here, with an attenuated culture of the disease-producing germ in question. Attenuation may be accomplished in various ways—the germs may be subjected to unfavorable conditions of growth for a certain number of generations, like unacclimated food medium, various temperatures, the presence or absence of oxygen and other gases, the action of direct sunlight, solutions of various chemicals, the blood of comparatively insusceptible animals, etc. In all cases the same result is accomplished. The vitality of the organism is reduced and its power of exerting toxic influences in the animal body correspondingly lessened.

Nearly all of these methods have been tried with the blackleg clostridium, and all with more or less success.

THE METHOD.

The method in vogue at present by commercial producers of blackleg lymph is to attenuate the spores in affected muscle and connective tissue by means of heat, subjecting different lots of material to the mitigating influence of various temperatures and in that way producing lymph of various strengths; the mild lymph, that produced at the higher temperature, to be used first; the strong lymph, that produced at a lower temperature, to be used a certain number of days after the first, when the first has prepared the animal organism to receive the second or effective dose. The lymph is sent out in powder form and is prepared by the stock-owner for immediate use. As a rule, 100 times its weight of distilled or boiled water is added to the lymph; the latter is then thoroughly incorporated with the former with the aid of a mortar and pestle; the resulting mixture is filtered and the filtrate is used as inoculating material, applied with a hypodermic syringe.

The point of application is the subcutaneous connective tissue in any part of the body—usually at the neck or shoulder or near the end of the tail. I prefer the end of the tail because, if a careless operation is performed, and we may look for this when the work is left to a novice, resulting infections are more apt to remain local. General blood-poisoning is less to be feared, and the sloughing off of a few inches of tail will result in no serious permanent injury.

Protective inoculation for blackleg seems to be a solved problem. But as to the best way to perform it, the best method of manufacturing material of a definite and reliable strength we have not yet learned all.

Whether the lymph should be single or double is of less consequence. What I wish to see, and what I am striving to attain in my experimental work, is a single or double lymph of uniform strength, that can be applied by the farmer or stock-raiser, in sections of the country where the services of a veterinarian cannot be had. But perhaps it is a little early to discuss that matter now. The facts stated regarding the different possible methods of checking the ravages of blackleg, each method applicable in its place, have been plain enough, I hope, so that it will be unnecessary to consume time in drawing conclusions.

The Swine Show at Omaha

By R. S. Cook, of Wichita, read before the Kansas Improved Stock Breeders' Association.

The swine show at the Trans-Mississippi Exposition was of great magnitude, and in some classes was very strong, but on the whole was a Western show.

Where, O, where, were our Eastern breeders that we have been buying breeding stock from for, lo, these many years? What was the trouble, that they were not there to show what the East is still doing in the way of swine husbandry? They were very conspicuous, owing to their absence, for but a few ventured out

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Your kidneys filter your blood and keep it pure; that's what they are there for. You are well when your kidneys are well.

Thousands owe their health and even life to Swamp-Root and thousands more can be made well who to-day think themselves beyond help if they will take Dr. Kilmer's Swamp-Root.

By special arrangement with the Kansas Farmer, and to prove for yourself the wonderful and prompt curative powers of this great discovery every reader will be sent by mail, prepaid, a free sample bottle and with it a book telling more about Swamp-Root and containing some of the thousands upon thousands of testimonial letters received from sufferers cured.

Please mention that you read this generous offer in the Kansas Farmer and send your address to Dr. Kilmer & Co., Binghamton, N. Y.

If you are already convinced that Swamp-Root is what you need, you can get the regular 50-cent and \$1 sizes at the drug stores or of medicine dealers. Make a note of the name, SWAMP-ROOT, Dr. Kilmer's Swamp-Root, and remember it is prepared only by Dr. Kilmer & Co., Binghamton, N. Y.

to pay us a visit, and most of these that did gather up courage sufficient to come so far west, could not resist the temptation of taking something choice back with them to aid them in keeping up their herds.

There was one herd from Ohio, they being Duroc-Jerseys; none from the noted State of Indiana, and only one herd from Illinois—they being of the red class also. The big-hearted Joe Cunningham was out visiting the boys and took a choice yearling from Nebraska back with him. Uncle T. C. Robinson, of Piqua, Ohio, paid us a visit of a few days and was well pleased with the swine exhibit.

It looks as if the Eastern breeders were afraid to come in contact with the Western breeders, as nearly all the swine show was from four Western States, Iowa, Nebraska, Kansas and Missouri. There were six Kansas breeders who had nerve enough to face the music, all of whom were Poland-China breeders. Two carloads were sent from Wichita, one by Messrs. Irwin & Duncan, of the Elm Beach stock farm, and one by R. S. Cook, proprietor of the Champion herd. H. M. Kirkpatrick, of Connors, Kans., had a car-load of fine porkers, under the care of W. E. Gresham. Another carload of fine Polands was sent from Smith County by N. G. Sims, of Smith Center, and C. F. Hutchinson, of Bellaire. Mr. Sims had a fine yearling on exhibition, but unfortunately for him he was from Kansas and not from Missouri, consequently his yearling was set outside the ribbons. Mr. Goode, who resides near Kansas City, had a few Polands on exhibition.

There were seven herds of Duroc-Jerseys represented and two or three herds of Yorkshires, most of which were good specimens of their breeds. They showed some improvement over their former exhibits in years past.

But where, O, where were our Chester White breeders, that they were not out to show their colors? There were none on exhibition. Have they crawled into some hole and pulled the hole in after them? We certainly have Chester Whites in our State that are worthy of exhibition and should have been out in strong company. I would also like to know where our Berkshire breeders were, that they were not out in strong force. There were only four herds that put in their appearance. Are they losing their grip and interest in their calling? The four herds were from the four following States: Kentucky, Iowa, Nebraska, and Missouri.

Mr. N. H. Gentry, of Sedalia, Mo., tied the ribbons on the Reds and the Yorkshires; Mr. Spicer, of Illinois, passed upon the Berkshires, and F. M. Lail, of Marshall, Mo., passed upon the greatest of all shows, the Poland-Chinas.

While the Kansas boys did not carry

off as many of the ribbons as they thought they ought and as other breeders thought were due them, they have the satisfaction of knowing that they made a creditable show, and they also have the satisfaction of knowing that they were quite successful in the sale ring, as some of the breeders sold as high as twenty-two head, others ten, etc. I guess all were well pleased with their sales, especially when the breeders from other States that carried off a number of ribbons failed to sell anything. This is strong evidence that Kansas breeders, as well as those of other States, can raise choice animals. At least the purchasers thought so, if the judge didn't.

Poland-Chinas, Poland-Chinas, Poland-Chinas everywhere and on every hand and in nearly every barn. Out of all those nineteen or twenty large barns, the Poland-Chinas filled the most of them. Visitors would say: "Where are the Chester Whites? I have looked at the Poland-Chinas until I am tired." There were a great many good ones, and in some classes they were much stronger than at the World's Fair in 1893. The breeder that won any ribbons on his Poland-Chinas at all, earned them. If the Exposition is any criterion to go by, the Poland-China must be the coming hog of the Central Basin, as they predominated over all other breeds. There must have been nearly or quite forty-five to fifty Poland-China breeders in the yearling class. There were forty-two entries, and all were fine, strong fellows. All other classes were strong also, ranging from twenty to forty entries, and when the entries for the stock yards special were called, the Poland-Chinas carried off the honors on barrows. But the most laughable thing of all was when the bacon hog was called for. Nearly every breeder thought he had the bacon hog. They were there in all classes and colors, the lean as well as the fat, but when the 15-cent half-breed Tamworth was driven out, why, he could outrun any Texas pony, or clear a six-rail fence with ease. The owner was the butt of all ridicule, as he had three or four races around the barns and pens after his trotter before he succeeded in getting him into the show pens. But, with all the jests and jeers he received, he also received the \$75 prize as the best bacon hog, a sum which he thought paid him well for his foot-race. Some of the boys thought they would like to have him at potato-digging time or to gather the third row of corn, through the fence, so as to save labor.

While the managers built us nice, large barns, with twenty-four pens in each, with plenty of water handy—a hydrant at each barn—it was generally conceded that they made a grave mistake in selecting a judge from a Western State from which they expected a strong show, and expecting him to do all the judging in classes, herds and sweepstakes with no one to aid him. The breeders generally seem to think they ought to have selected a judge out of some of the prominent breeders from some of the Eastern States with two counselors from two of the Western States.

I wonder where our boomers were that they were not there with their \$3,600 hogs, or their \$5,000 hogs, or some of their kings and queens of the Poland-China tribe, to carry off a bushel of ribbons. I failed to see a single breeder that stood ready to defend the boom hogs or the boom syndicate. They seem to be things of the past. This, I hope, is true, so that the breeding of fine stock will go right along in straight business channels, and the breeder that takes pains to raise good animals will receive pay for his pains and trouble, and the purchaser will get his money's worth.

Before closing I would like to say a word in regard to an international stock exposition each fall at some central point where railroad facilities are abundant, and where all could meet and have a great stock exhibition. I would like to see some good, lively, energetic city take this matter up. I believe the Western breeder would look forward to the time that this exhibition should be in progress. It would be a good place to draw buyers for our surplus, and the Western breeders would become better acquainted. I think that the city that would take this matter up would be well paid for its expense and trouble. Kansas City would be a good location, and, in a few years, it would become a settled affair, and breeders would know what to be prepared for.

In case there should be an international exhibition in the near future, I hope the managers will have forethought enough to prepare their permits of departure at least the night before, so that the breeders will not have to stand around from twenty-four to thirty-six hours in the cold, with the mud six to

eight inches in depth, after the time arrives for them to depart, and for all the officers to scrutinize their permits and see if every sloop pail and sloop barrel was on their permits, and not be so ironical as to compel a breeder to unload his stock after he has it crated and loaded on a dray, then wait twenty-four hours because he had failed to mention the fact that he had used a sloop barrel to mix his feed in and wanted to take it along with him; and don't, oh, don't have the rules so iron-clad as to compel each breeder to have a permit to sneeze, especially if the weather is cold and stormy, as it was at Omaha. But we had one thing to be thankful for, and that was that we had a kind and congenial superintendent in the person of our friend Mr. J. B. Dinsmore, of Sutton, Neb. But, unfortunately for us, his hands were tied, and he was also under iron-clad instructions and had to wear the yoke of red tape.

Another thing the Kansas breeders had to be thankful for was that we had a set of commissioners that were ready and willing to further our interests, especially our chairman, Gov. G. W. Glick, and also our friend H. A. Heath, of the Kansas Farmer, who worked entirely for the interests of our Kansas breeders.

O, yes; the newspaper representatives were there with their sharpened pencils, ready to sacrifice themselves at the altar for our special benefit. But, on the whole, they are a good set of fellows and almost indispensable, and we have to have them in our business to tell the other fellows what is going on in the world and where the good breeders reside.

May our stock journals thrive and do well; but they must not get too fat and slick off the poor sloop-pail hog breeders, as the breeders' paths are not always located in flowery gardens. The breeder has his ups and downs and trials with the rest of mankind.

DISCUSSION.

Mr. Heath: I do not like to occupy the time in these discussions, but, in connection with this report, I want to call attention to one or two things that are very important. The paper gives the facts about some things, but it does not go into detail enough as to why other breeds were not represented.

In behalf of the Berkshire breeders, I can say this: There were two herds originally gotten ready to be sent there, that had they been shown, would have won great honors for the breeders and for Kansas. One of these herds had a misfortune, such as only a hog man can appreciate; the herd got the cholera and the cholera got them. The other herd was prepared for show, but when word came from Omaha that cash premiums would not be paid, but, instead, medals, ribbons and other things would be awarded, this man was dissatisfied, and consequently the herd was turned back into the pens again and further preparation stopped. The Poland-China men, however, exhibited more nerve, perhaps, than the Berkshire men, and, being so strong in membership, turned out and made an exhibition that was a credit to Kansas, as has been said by Mr. Cook.

Another fact I forgot to mention, and that is this: The Kansas Commission to the Omaha Exposition have provided a large number of copies of what Kansas did, in detail, at that Exposition, and at their last meeting voted five hundred copies of that report to this association, and they will be available in a very short time for the members of this association.

Mr. Updegraff: There is one thing in this paper more than anything else that struck my fancy. It may be that I have been cranky on State fairs. This paper does not say anything about a fair, but it says something that fills my idea of what would take the place of a State fair, and that is an interstate exposition, located at a point where railroad facilities are abundant. If we can't have a State fair in Kansas, we certainly ought to be able to get something of that kind as an interstate affair. If we cannot have it in Topeka, perhaps we could have it in Wichita; but, if there should be more money in it, or we should reach that conclusion, we could have it in Kansas City, Kansas. I would not be in favor of moving it beyond the State border. But in that connection I want to air my ideas in asking the State of Kansas to make some kind of an appropriation, of course of some size, to the men who have made this great State of Kansas what it is. The stock breeders of Kansas are the foundation of Kansas, and the breeders of our State are distributed in every corner and direction of this State, and a State fair or State exposition would be greatly to the interests of the stockmen of this State. It is true that we have our State Board of Agriculture, which receives a very

limited amount every year for their work. They do not have enough money to use and do the work they want to; they do not have money enough to buy postage that they ought to have and mail the reports that they want to get out. Now, then, what we want and what we need is a State fair or exposition, and I think that we stock breeders of the State of Kansas have a right to have our fingers in the State treasury, enough so to have a State fair, and I think we ought to get there, too; and what we want is enough of an appropriation to help us in carrying out the idea of a State or international exposition, so that we may be enabled to show our stock of every kind and description. We have money in the State treasury for distribution, and most everybody else but the stock breeders are taken care of. Why not the stock breeders? They are the foundation of Kansas, and why shouldn't they have a finger in it, too? If we do not ask for this and claim it, we will never get it.

Mr. Herrington: The idea suggested by my friend is a good one, but it seems to me that the legislature must have someone to confer with before they can do any business of this kind. It makes no difference to me whether this State fair or exposition, as you wish to call it, be in Topeka, Wichita or Kansas City, but it seems to me that the stock breeders should be incorporated, then they could go to the legislature and ask for something and be prepared to push their plan, and ask for this appropriation that we want. It would be supposed that the stock breeders should have charge of the stock show and fair association. If we were first incorporated, we could then do business with those fellows; we could then go to the legislature and ask them for this appropriation. I simply bring this matter up to ascertain what you think of a corporation. I think that it is something that will bring the stock breeders together so that we can deal with the legislature of the State of Kansas. It would seem to me that this is the first step to take.

Mr. Updegraff: I simply took this matter up so that you fellows will have something to think about for the next two or three days. I think, though, that we should do something along this line.

Mr. Thompson: As a matter of fact, if we should abandon the stock interests in Kansas, we might as well turn the State back to the Indians. I have always regarded the stock interest and business of Kansas as the most important that she has, and it seems to me that if we ask aid of the Kansas legislature to help us in conducting a State fair, in doing this we are not going out of the way at all. Now, about this matter of incorporation; that is a matter that I am not very strongly impressed with. It sometimes works both ways, and is apt to work us evil. It is sometimes hard to manage. There must be some way, though, of obtaining an appropriation from the legislature, and I think that that is a matter which should be discussed; and it seems to me that the Swine Breeders and the Improved Stock Breeders could manage it successfully, as they have managed their organizations for the last nine years.

Mr. Patterson: I don't know so much about this matter of getting an appropriation from the legislature. I do not think we need to incorporate; I do not think that the Horticultural Society is incorporated, and when the matter comes up I do not think it necessary for us to incorporate. I have never heard of this matter being raised in the legislature, but I think that they give money wherever they see fit, whether the society is very important or incorporated or not.

Mr. Allen: Now, I want to tell you gentlemen a little about the Texas fair, which is held at Dallas, Texas. I have a friend in Congress who told me all about it. They wanted to have an exposition down there, but they didn't go to the legislature and ask for an appropriation. They simply got together and formed a stock company, fixing the capital at \$250,000, of 100 shares, and at the last exposition there was expended in premiums the sum of \$70,000, and the stock of that association is worth 200 per cent, and it is said to have done more for the State of Texas than any institution in operation in that State, and these parties have never asked the legislature for a cent in the way of assistance or from the county in which Dallas is located, either, for that matter. It is organized on business principles, and they own 120 acres of land. And the St. Louis Fair Association is organized on the same principles, and it is doing more for St. Louis and Missouri than any institution in the State; they have expended millions of dollars on the grounds. I am very much in favor of a State fair and believe in organizing one on business principles, and associat-



Think of living a year or two after one is dead; dead to all practical intents and purposes,—dead, with the autograph of death inscribed on brow and cheek and lip.

Thousands of women live for a year or two after all helpfulness and happiness have gone out of their lives. When a woman becomes hopelessly helpless and unhappy she is practically

dead. The young woman to whom the future is a dreary waste, the young wife who is a helpless, nervous invalid, the mother whose babes are a burden instead of a blessing,—all these, unless they take the right measures to recover their health, are better dead than living. In the majority of cases these ghosts of women owe their condition to weakness and disease of the distinctly feminine organism. Frequently they have been deceived by the incorrect diagnosis of some obscure physician and do not understand the true nature of their trouble. It only costs a two-cent postage stamp for a woman to write and describe her condition to Dr. R. V. Pierce, an eminent and skillful specialist, for thirty years chief consulting physician to the Invalids' Hotel and Surgical Institute of Buffalo, N. Y. He will answer letters from ailing women without charge. He is the discoverer of Dr. Pierce's Favorite Prescription, the greatest of all known medicines for women. It acts directly on the delicate organs concerned in maternity and makes them strong, healthy and vigorous. It banishes the indispositions of the anxious period and makes baby's coming easy and almost painless. It cures all disorders and displacements and checks exhausting drains.

"Previous to motherhood my wife was very sick," writes Dennis H. Connelly, Esq., of Clear Water, Wright Co., Minn. "Two bottles of Dr. Pierce's Favorite Prescription made her well and strong."

Dr. Pierce's Pleasant Pellets cure biliousness and constipation. One a dose. They never gripe.

ing ourselves in this matter, and all get together and have a State fair, in any part of the State, either here or Wichita; it makes no difference to me where it is. I understand there are grounds here, but I do not know how much there is; but I should think that we ought to be able to get some kind of a lease on these grounds. We ought to organize, and that on business principles, for men will not work for nothing. An enterprise of this kind would be greatly to the welfare of the State of Kansas.

Mr. Westbrook: I would just like to say that I endorse the paper, as most of the gentlemen have, and to say that we have talked of this thing in these meetings before, the Swine Breeders and Improved Stock Breeders and State Board of Agriculture. I wish we could get up enthusiasm enough to make a good start, and it seems to me that we ought to have influence enough on the legislature so that we could induce them to make an appropriation of some kind towards a State fair. Now, I live out here at Peabody, 120 miles from here, and we tried to have a fair out there, but we didn't succeed very well. I have attended fairs in Wichita and State fairs in Topeka, and I want to say, right here, that I think there are people in Kansas who would not be here had it not been for the State fairs. I came here from Wisconsin; we had good State fairs there and after I came here, and people followed me, and I told them about the good things we had here in Kansas, they generally came and settled here, and I wish that we could get our people all over the State to take up this matter of a State fair, so that we can show outside people who come here what we can do in Kansas. I never knew of a person coming from the East but what they were surprised to see and know what we could do here in Kansas. It was an advertisement for Kansas, and Topeka, too. I think that we all ought to go to and see each one of our respective representatives and urge them in that way to make an appropriation to help us out in this matter, so that we might have a State fair in Topeka.

Mr. Ferguson: I believe that the members of this organization ought to see the representatives in their districts and see what they could do in the way of a State fair.

Mr. Updegraff: This question was brought up by the breeders, as it seemed to be so appropriate, by Brother Cook's paper. I am glad to hear the expressions that have been made here. We have a State fair committee which we will hear from in due time, but it would be well for you all to give this matter some attention when it comes up. You have all heard me before on this subject, but I

True Economy



Hand or Little Giant.

BRANCHES: **P. M. SHARPLES,**
 Toledo, O. Omaha, Neb. West Chester, Pa.
 Elgin, Ill. St. Paul, Minn.
 Dubuque, Ia. San Francisco, Cal.

believe that the proper head of State institution—exposition, if you please—is the State Board of Agriculture, as they have in other States. But it seems that the State Board of Agriculture in Kansas doesn't want a show that way. My idea is, as Brother Cook has said. I think, as breeders of the State of Kansas, we ought to make it our duty to have an appropriation made to the State Board of Agriculture, so that they might be enabled to employ such additional help as they may need in this business, if they are placed at the head of this State exposition. I think we have as good a man as the State of Kansas ever produced. I do not want to burden his shoulders with more than he can bear; but if the State of Kansas will give them such an appropriation as he may need in the employment of additional help in his office, it will not add very materially to his duties.

Mr. Warner: We had one of the first fairs that was ever held in the State at Manhattan. We carried it along as long as we could, but finally had to abandon it. It was held as a county fair; the majority of our county fairs have proven to be just as ours did out there at Manhattan. Most of our people want people to make larger exhibits than they really can make. The people of Kansas ought to have a State fair, and I want to say right now and here, that they used to have very successful fairs here in Topeka, because I have attended them myself. It seems to me that the capital is the place to have a State fair. We might have a better fair in Kansas City, but I think it is doubtful. The live stock interest is the greatest of any one industry in this State, and I think we ought to be able to exert some influence, by reason of that fact, over the legislature. The representative from Riley County is a stockman, and I think he is thoroughly in accord with our interests, and it seems that we ought to get up some plan by which we can have a fair, but I think we ought to organize in some way.

Economy and Profit.

In times of medium prices for farm products that man who produces an article with the greatest amount of economy—at the least cost—is the man who makes the greatest amount of money. To employ measures of economy does not necessarily mean stinting or skimping of anything, but it does mean in a majority of all cases the employment of better and improved methods. For instance, the present price of corn is very satisfactory and will admit of its being sold so as to leave a profit to the producer. On the other hand, the price of pork is low, so low, in fact, that it will not pay to feed hogs at present corn values.



Just here is where improved methods interpose to the advantage of the farmer and bring about conditions that will enable him to sell both corn and hogs at a profit. If the hogs were fattened—as they can be—with about half as much corn, it would bring the cost of producing the pork so low as to leave a handsome profit on the transaction, even at the present low prices of pork. If it requires but half your corn to fatten your hogs or other stock you will have the remaining half to sell at the present advanced price, which means another profit.

As to the improved methods that will bring about these happy results we refer our readers to the modern stock food cooker, which is now being used with such great success by so many of our best farmers. If you are not already acquainted with these machines and their advantages write to the Reliable Incubator and Brooder Co., of Quincy, Ill., who manufactures the Reliable Stock Food Cooker, a small cut of which we show herewith. They will be pleased to mail you their circulars, prices, etc.

THE SWINE BREEDERS.

PRESIDENT'S ANNUAL ADDRESS.
 Delivered by H. W. Cheney, of North Topeka, Kans., before the Kansas Swine Breeders' Association, at State House, in Topeka, Kans., January 10, 1899.

A few years ago—within the recollection of any middle-aged man—the city of Cincinnati, Ohio, was known both at home and abroad as the "Porkopolis" of the world. And while the pigs of those days curled their tails and grew fat upon the mast and corn in the valleys and hills of Ohio, Indiana and Pennsylvania, Indians had full control of the rich valleys and plains of Kansas, and, like the lilies of the field, they toiled not, neither did they spin, thus seeming to have escaped for a time the curse that is said to have fallen upon all of the descendants of Adam, "In the sweat of thy face shalt thou eat bread." They, because of their violation of this edict, were forced to yield up their rich domain to a class of people who would heed it. And this enables me to record that during the year 1898 there were marketed in Kansas City 3,250,000 hogs, a large proportion of which were grown upon the plains of Kansas, while during the same period, in Cincinnati, only a few more than 600,000 were marketed.

Hurrah for Kansas, her men and her swine! As long as meat-eating nations continue to conquer the world the production of pork will be profitable in Kansas. The business of breeding improved kinds of swine is primarily dependent upon the pork market. Pork production, as well as the production of the improved breeds, will be more or less profitable in proportion to the amount of skill employed. A school boy's definition of the word professor was, "A man skilled in sense," so I conclude that a professor of "swineology" should be a man skilled in swine sense. Or, to use the king's English in a more proper form, I would say a man with a thorough knowledge of the production of swine at a profit. I hope it will be the business of this annual meeting of the Kansas Swine Breeders' Association to disseminate as much of this kind of knowledge as is possible in the time at our command, to the end that Kansas may lose none of the prestige already achieved, but that she may press forward to still higher attainments in the near future. It is a frequent expression of the boys, when trying to drive a herd of hogs, that some one of them will be sure to have its head on the wrong end, and of the owners of breeds whose ears project upward, that they hate to try to drive a specimen of the lop-eared breeds, because his ears cover his eyes. Let us, the members of this association, keep our heads upon the right end—the end that leads to perfection in breeding, to honorable business methods, and to a higher and better understanding of our calling, and see to it that our ears do not cover our eyes so that we cannot see the most important part of our business—the part that has the profit in it.

The past year has been in many respects a peculiar one to the swine breeder. We have witnessed the remarkable spectacle of the United States carrying on a war with a foreign nation, and, at the same time, the exports of hog products constantly increasing, and the price of pork remaining low or going lower on account of the large run of hogs. The boom in Poland-Chinas, which culminated in the sale of one animal for \$5,100, has been punctured and has fallen to the earth with a sickening thud that, like the collapse of all other booms, has left the participants in it with that tired feeling both in head, heart, and pocketbook, that occasionally causes a man to wonder what on earth he was born for anyhow, and to exclaim, "If this is all of life it were better far that I never lived." This has also indirectly damaged everybody engaged in the production of pure-bred swine. Kansas breeders, I am happy to state, have been, as compared with others, immune from the direct effects of the boom, but they cannot escape the damage to breeding interests in general. In addition to this the partial failure of the corn crop in certain localities, the ravages of cholera in others, and the higher prices of corn and mill feeds, have had a depressing effect upon the market for pure-bred swine. But, notwithstanding all this, very many breeders are sold out of stock of breeding age, and, while the price has been low in many instances, the market has been healthy, and buyers have paid more attention to quality in the animal and less attention to boom qualities of pedigree.

But what of the future? I am not a pessimist, and, therefore, can see bright stars shining through the mists and clouds that may be hovering over us; and just over yonder above the tops of those hills I can see the rays of the rising sun that will cause them all to

SWEET POTATOES

Sent out to be Sprouted on Shares.
 No experience required. Directions for sprouting free with order. Also Vineless Sweet Potatoes for sale and on shares.

T. J. SKINNER, Columbus, Kas.

vanish like snowballs in equatorial heat. The exports of the country are vastly larger than ever before. Though imports have increased remarkably, exports have increased so much faster that the balance of trade is running about \$75,000,000 a month in favor of the United States. A condition of affairs which I see no reason for not continuing, except that this country will be filled up with foreign gold, which will cause no loss of sleep upon the plains of Kansas. And with our new island possessions, extending from the Antilles to the antipodes, the trade with which will be monopolized by the Americans; with the markets of Europe open to our pork products; with our largely increased home consumption, on account of our citizens being profitably employed, it looks to me as if the swine breeders of Kansas have a very bright future before them. The truth is, we have only tickled the upper strata of Kansas soil in spots, and the actual productive capacity of the State under intense culture, has only been dreamed of. Let us be up and doing, grasping all these golden opportunities as they are presented to us, and when all the nations are feasting upon Kansas pork, our friends will love us more and our enemies will cease to revile us.

I.

People used to say a lot,
 Sneerin' like o' Kansas,
 Socked it to us—lot o' rot,
 Pokin' fun at Kansas;
 Said our State was very dry,
 Pigs wouldn't grow—needn't try,
 That's the story they used to fly
 'Bout us here in Kansas.

II.

Hailstorms, drought, cyclones are born
 On the plains o' Kansas;
 Cannot raise a crop of corn
 In the fields of Kansas.
 Pigs will blister in the sun,
 Clover'll die, let what will come,
 Good place for people all to shun—
 Goin' to wives' folks on a run,
 From the plains of Kansas.

III.

Now it's come our time to laugh—
 Farmers out in Kansas—
 We're not bankrupt by more'n half—
 People out in Kansas.
 Crops are good in spite o' storm;
 Cribs a' bulgin' out with corn;
 Sheep as nice as e'er were shorn;
 Pigs as fat as e'er were born;
 Steers to ship 'most every morn;
 Handsome maidens all forlorn,
 Milking cows without a horn;
 The Kansas hen without a scorn
 Proceeds our tables to adorn,
 Over here in Kansas.

IV.

Bankrupt? No—don't utter such a moan
 'Bout us here in Kansas;
 We've got money enough to loan,
 Out here in Kansas.
 Want to see the broadest grin
 Ever was seen on face or chin?
 Watch us rake the shekels in—
 A load of porkers brought the tin
 To us out in Kansas.

V.

Banks and railroads! Yes, we cussed 'em
 On the plains o' Kansas,
 Only because it was the custom,
 Over here in Kansas.
 We're riding home now like a rocket,
 Eyes almost bulging out of socket,
 Slight drafts and passes in our pocket,
 We've sold our pork, and they didn't dock it,
 From the plains o' Kansas.

VI.

Now, let the good Lord be praised,
 On the plains o' Kansas,
 For the pig crops we have raised
 On the plains o' Kansas,
 Six million dollars from the Kansas hen,
 Twenty million dollars from the Kansas pen—
 Let's proclaim, "Peace on earth, good will
 To men,"
 From the plains o' Kansas.

DISCUSSION.

Mr. Hubbard: My impression is that the president had better abandon the hog business and take up a different line of thought. I pronounce the poetry a perfect little gem.

Mr. Peterson: I move that the secretary be authorized to wait upon the legislature when it is in session and recommend that our president be appointed poet laureate of Kansas.

Mr. Treadway: I want to move you, gentlemen, that we do not take our honorable president from the swine industry and put him some place else. I protest against any such action.

Walter N. Allen: I make a motion that we have the paper of our president published in the Kansas Farmer.

Mr. Heath: I want to say to you, gentlemen, that all the papers read here before this meeting and all of the discussions will be published in the Kansas Farmer.

Dr. Bull's Cough Syrup cures croup. It has saved the life of many a child. Mothers, keep this medicine always on hand; it will save you many restless moments. Price 25 cents.

THE KANSAS IMPROVED STOCK BREEDERS.

PRESIDENT'S ADDRESS.

The following address was delivered by President M. S. Babcock at the opening session, Tuesday, January 10:

Gentlemen of the Association:—One of the first stock breeders of whom we have any record once made the remark that "man is born unto trouble, as sparks fly upward." It seems to be one of the hardest lessons for us to comprehend that this condition of man is absolutely essential to his highest development, yet the thorough student of history cannot fail to note that such is the case. The highest prosperity and development of nations have always been during the periods immediately following their wars.

You will undoubtedly recognize the truth of this statement in the case of our own nation, and our late trouble with Spain has had no small part in placing us on the threshold of an era of the greatest prosperity this country has ever experienced.

But it is not with the affairs of the nation at large that I shall deal in my remarks, but with matters that are of more direct concern to that small portion of our country known as Kansas. It must have been little short of inspiration that gave to our beloved State her motto, "To the stars through difficulties," for I believe that no like number of square miles on the face of the earth has been the scene of more trouble to the sons of men in proportion to their numbers than has been experienced within the borders of Kansas, and as a direct result of these trials no country and people are in better condition to reap their full share of prosperity than are Kansas and her people.

You are all familiar with the populating and depopulating of the short-grass portion of this State which has been going on during the past few years—how that part filled up with sturdy immigrants, and how their efforts to gain a subsistence for themselves and families by modes of farming similar to those they had been practicing in other climes were met by disappointment and disaster from year to year with a wonderful degree of regularity until a majority of the inhabitants were glad to get away. But some of them staid too long and could not leave, and, in the words of the old darkey, "Something had to be did." In their struggles to eke out an existence it developed that alfalfa, Kaffir corn and sorghum are well adapted to the soil and climate. Through the use of these foods they blundered into a balanced ration for their stock. As a result the fact is staring us in the face today, that the stock breeder of the "short-grass country" is reaping far better returns for his capital and labor than the stock breeders dwelling within the corn belt portion of the State. Furthermore, such is likely to continue to be the situation for some time to come, for the reason that it is so hard for us to get out of a rut after we have traveled in it a long time. We farmers in the corn belt are so much in the habit of planting pretty near the whole farm in corn that, if we keep any stock at all, we must of necessity feed it to a great extent on a corn diet, for the simple reason that this is all we have to feed. But we are swiftly coming to the point where "Something has got to be did."

We have farmed our land until very many of our farms will no longer produce profitable crops, and the worst feature of the whole business is that we have not been getting a price for our product that has paid anything for the loss of fertility in our farms. Thousands and thousands of acres of corn has been raised in eastern Kansas in the past ten years that has not paid the rent of the land and day wages to the producer; and thousands of acres of land that was intended for corn the past year has not produced anything but weeds.

The value of the State's live stock has increased the past year some thirty odd millions of dollars, and I look for it to increase in still greater ratio in the years to come, and to the great benefit of our pockets, and at the same time to the fertility and productivity of our farms. But to secure the best returns possible from this branch of farm industry, it is evident that we have yet many lessons to learn on the inexhaustible subject of

(Continued on page 12.)

The Home Circle.

A FARM IDYL.

It was not in the dewy morn,
Nor not when twilight fell,
But in the glare of noon-tide hour,
When Phyllis rung the bell,
She pulled the bell with steady stroke,
Its clanging notes the echoes woke,
To hungry men these glad words spoke:
"Come, come! the dinner's ready."

"Ding-dong; ding-dong, now don't be long,
The minutes are passing by;
There's roast beef and green peas,
Macaroni and cheese,
And the loveliest raspberry pie."

It was a glorious harvest day,
Old Sol just beamed refulgent;
And meadow green and close-shorn field
Had felt his mood indulgent.
A little breeze went capering round—
It stirred the sheaves that strewed the
ground,
Shook out the perfume that it found,
Hid in the dainty flower cups.

"Ding-dong; ding-dong, I'll venture a song
That you haven't started yet;
There's jelly to make,
And a cake to bake,
And a sponge for raised biscuit to set."

A creek flowed lazily along,
The bounding line defining,
Whose banks are gay with lilies red
On stately stalks declining.
In meadow's bush the cattle stood,
Or 'neath the shelter of a wood,
Contentment's cud serenely chewed,
And thought not of the morrow.

"Ring, old bell, ring, for my heart must
sing,
Ned loves me—how do I know?
Why he asked me to wait,
By the old red gate,
Last night, and he told me so."

The cat tails nod and bow their heads,
Amid the stiff green rushes;
While meadow-lark and mocking bird
Sing from the elder bushes.
The squirrels frisk along the rail,
Pipes shrill and clear the shy brown quail,
And flocks of blackbirds slowly sail,
Over softly rustling corn fields.

"Ring on, old bell, the story tell,
For everyone on the farm can see,
That I love Ned and Ned loves me,
And this very autumn it's wedded we'll be,
All in the golden autumn."
—Detroit Free Press.

Various Matters.

I opened a can of tomatoes to-day.
They looked all right until they began to
heat, then they foamed. We had com-
pany, and talked over how difficult it
seems to be to put up tomatoes so they will
keep and taste as fresh as those we
buy. The lady told me she thought she
had better luck since she stopped salt-
ing them.

She enjoyed and praised my sweet
pickles. I am sure of having them good
if I only have good cider vinegar and
don't get too stingy to add a pound of
sugar to every pint of it. Equal meas-
ures amount to the same thing.

My company told me several uses she
had found for dried lemon peel. She
uses just the yellow outside. Likes it
in canned apples, preserved pears, and
picks out the pieces before serving the
fruit.

Then we talked about our new hired
men. She felt so bad to find that their's
didn't eat pork, because she thought it
made cooking for him so much easier,
and the drippings saved such a lot of
butter. Our man eats pork, but he
doesn't like to do chores. Every cow is
as afraid of death of him already, and I
think he calculates to have a fine shirt
in the wash every week, so what we
gain in one way we lose in another.

In the forenoon of town meeting day,
a neighbor drove over to borrow our
scraper, saying his wife had been at
him for years to fix up her door-yard,
and he didn't know but what he might
work at it a while before going to vote.

The moment he spoke I knew just how
that woman felt about her yard, so I
rubbed the dough off my hands and
hustled out to find either Simon or the
scraper. After I had run all over the
barns and sheds yelling for one and
looking for the other, Willie appeared
from somewhere and said he knew the
scraper was at a place nearly two miles
away.

Then Simon came. After they had
talked an hour or two, the man said
he guessed he wouldn't have time to go
after it, that it wouldn't pay anyhow.
I felt so sorry for his wife that I couldn't
help thinking about it for a long time.

Last winter I set out to get quite a lot
of visiting done, but didn't make out
much. I always hate to send out word
we are coming, because people think they
must fuss so for expected company,
while something is very likely to happen
to keep us from going. Then, if we go
on the chance, we are apt to find them
with something on hand that shows
plainly enough it would have been easier
for them if we had stayed at home.

At one place we found them head over
heels cleaning and baking for a party of
young folk expected that evening. I took
hold and helped all I could, but knew I

was in the way, and didn't know how to
get out till the proper time came, either.
They all did their best to make it pleas-
ant for us, but I could see it was hard
work to give us any thought, while they
felt rather mortified to have us know
there were such nice things in the pantry
that they couldn't put on the table for
us. At another place we caught them all
hitched up and ready to go away, while
at a third they had hay-pressers to
cook for. Then we quit the visiting busi-
ness.

I have always thought the worst wish
I could make for an enemy (if I knew I
had one) would be that she might have
three or four men sitting around the
house in cold weather waiting for the
next meal, while she had to walk around
them to get it, thinking all the time of
forty things she wanted to do, but
couldn't find time for. Simon took a
fellow in last fall to chop wood and do
chores for his board. This, together with
grip and rheumatism, has given me such
a trial of this sort of thing that I told
Lou one morning I was going to join the
church and try to get to heaven, just be-
cause it was the only place I could think
of where there would be any hope of
getting rid of men.

Of course, there would be a few min-
isters there, but they would be taken up
with the pretty angels and not bother
me.—Simon's Wife.

John Smith and His Wife.

Written for Kansas Farmer.

John Smith was a very prominent
man; he owned a good farm, raised
Norman horses, Shorthorn cattle and
Poland-China swine; was elected to the
legislature and made a great record as a
man of brains, etc.

Mrs. Smith was of a quiet disposition;
had raised a family and raised chickens.
For years she had paid all the grocery
and dry goods bills, and occasionally
brought home a barrel of salt for John's
stock. She always went to town her-
self with her poultry and eggs—in fact,
she was very careful not to lower John's
dignity. One day she requested John to
separate her henhouse from the hogpens
and help her a little towards improve-
ment. John could not spare the time,
and, moreover, "fooling with chickens"
would do, perhaps, for a woman, but for
a dignified, prominent man, never. John
did a great business, hired lots of men
and money. Alas! John's day came;
his hired money and hands collapsed,
together with his legislative dignity.
The sheriff gobbled up his fine stock and
dignity and a crop failure gobbled up his
crops.

Mrs. Smith had four cows of her own,
besides her hens. John went out one
day to survey the wreck; soon came
back to consult with his wife. They
talked the circumstances over. John's
wife quietly remarked that her hens and
cows had been paying the bills and her
faith was with them yet. This was in
the fall of 1894. John began to take a
very decided interest in the source from
which his bread and butter came. The
result was to help his wife improve the
poultryhouse a little. These same cows
and poultry, paid for their own feed be-
sides that of the whole Smith family
right through the two crop-falling years.
There were lots of other John Smiths in
the West during these two seasons. This
kind of John Smiths is in every State;
it is in every county; it is everywhere.
Practically, the cows and poultry have
kept hundreds of us out of debt for
years on the same plan as Mrs. Smith's.
Mrs. Smith quietly did all the marketing
and paid all the bills necessarily belong-
ing to bringing up a large family and
feeding the hired hands. There are
thousands of Mrs. Smiths all over the
State.
M. M. JOHNSON.

Clay Center, Neb.

The Story of a Model.

Had it not been for a mortgage on a
Missouri homestead the world would never
have seen Astley D. M. Cooper's wonder-
ful painting, "Trilby." There might have
been a painting of that subject by the same
artist, but it could never have been the
masterpiece the present painting is. It was
that mortgage that gave Mr. Cooper his
beautiful model.

Some years ago this young woman was
living the happy life of a country girl on
her wealthy father's farm in western Mis-
souri. She grew up wild and free, unre-
strained in spirits and form, living very
close to nature. No corsets ever encircled
her waist, and no tight shoes distorted her
feet. She grew to womanhood an unfet-
tered child of nature, beautiful in face and
form. Then came misfortune to her father.
The grasshoppers devastated his fields, and
he was compelled to mortgage the home-
stead. The father sickened and died, leav-
ing his wife and daughter without re-
sources and with a mortgaged home. They
went to Kansas City, where the mother se-
cured employment as a cashier in a de-
partment store, and the daughter as cloak
model in the same establishment. Their

common purpose was to save money enough
to pay off the mortgage on the homestead.
As they came and went to their work they
began to attract attention, and soon all
eyes were upon them. The young woman
soon became known as the "Living Venus,"
and as such was known to many people
who knew nothing of her life.

At this time an artist friend, who lived
in Kansas City, wrote to Mr. Cooper that
he had seen the woman of goddess-like
form, who alone would serve for a model
for a perfect "Trilby," knowing that Cooper
was searching for such a model. The
artist went post haste to Kansas City.
He managed to secure an introduction to
the beautiful girl, and with all possible
tact suggested his purpose. She indig-
nantly refused his offer, but Cooper was so
impressed with her beauty that he would
not be content with a refusal. He argued
with the mother, persuaded her, and prom-
ised a price that would raise the mortgage,
and endeavored to show the daughter that
there need be no sacrifice of her maidenly
modesty. He told her that her mother
could go with her and be with her all the
time she was posing. Finally she yielded.
At Cooper's beautiful home, in San Jose,
Cal., during the following four months, she
was the sole model, and furnished the in-
spiration for this great picture. When the
picture was completed, both mother and
daughter returned to Kansas City, where
the daughter was soon married.—Washing-
ton Post.

Not For Her.

"Ah, no," she sighed, "I am not worthy
of you."

The young man stood as one stricken
with a palsy. A deathly pallor overspread
his countenance; he tried to speak, but his
tongue would not obey him.

Meanwhile the maiden's cheeks blazed,
and her eyes flashed. She clenched her
little white hands so fiercely that the nails
of her fingers cut into her tender palms.

At last, with a mighty effort, Vivian Os-
good pulled himself together, and cried
out:

"Oh, this will break my heart! I cannot
survive it."

Then he sank down into the chair from
which he had risen up in his strong young
manhood but a moment before, and resting
his elbows upon his knees, and burying his
face in his hands, sobbed pitifully.

Beatrice Buskirk moved upon him as a
tigress approaches her prey. Grasping
him by a shoulder, she shook him roughly
and angrily cried out:

"What do you mean by acting in this
way?"

He looked at her with wonder upon his
visage.

"Explain yourself, sir," the beautiful girl
fiercely continued. "No man can come into
my father's house and carry on as you
have been carrying on for the past three
minutes without an explanation."

"But—but," Vivian Osgood said, "you
have told me that you are not worthy of
me."

"Fool!" she returned, "you should have
declared that it was false—that you would
take me in spite of it! Go away somewhere
and serve an apprenticeship at lovmaking.
Then come back to me, and we shall see!"

He begged for pity, but she was ob-
durate, and as he stumbled out into the
unsympathetic night he was followed by a
low, mocking laugh.—Cleveland Leader.

Eating Between Meals.

The practice of eating between meals is
sternly discountenanced by many well-
meaning individuals who are of dyspeptic
habit, or perhaps do better without any
additional nourishment in the course of a
sedentary life. They are apt to enforce
obedience from their children on this point
on the ground that what suits the mother's
digestion must be equally suitable to the
digestive apparatus of the children. The
case is very different. Growing chil-
dren of active disposition are apt to be
hungry most of the time and are willing
to accept the proffer of anything "good
to eat" (from their own point of view) at
almost any hour. Indeed, the boy who is
getting his growth rapidly frequently eats
as if his legs were hollow, or as if he had
as many cavities to be filled as those that
occur in the complex stomach of a rumi-
nant.

It was on this account, doubtless, that
the immortal "autocrat" laid down his

golden rule for ascertaining the youth of
an individual, namely, to offer the sus-
pected person a bun immediately before
dinner and then note whether it be ac-
cepted.

Since active children need frequent re-
freshment and assimilate it without diffi-
culty, it is well to give them the most
suitable food. Cakes and sweets generally
are not desirable because they take away
the appetite for a regular meal, to which
they appertain as a kind of dessert. The
better plan is to keep a generous supply
of fresh fruit constantly on hand in the
house. When a child becomes hungry be-
tween meals and asks for something to eat,
give him apples, grapes, or a peach.

It seems to be a well-ascertained fact
that apples, while satisfying the "empty"
sensations of a hungry person, do not in-
terfere with enjoyment of one's regular
meals. The apple is par excellence a
health food. It helps to keep the diges-
tive apparatus in good working order, and
the weak subacid of the fruit appears to
act as a lubricant to the machinery of the
human body. Therefore, instead of refus-
ing to allow your children to "eat be-
tween meals," or instead of permitting
them to cram sweet biscuits, crackers or
cakes, it is the part of a wise mother to
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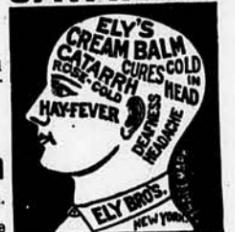
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The Young Folks.

IF WE KNEW.

Could we but draw back the curtains That surround each other's lives, See the naked heart and spirit, Know what spur the action gives, Often we should find it better, Purer than we judge we should— We should love each other better If we only understood.

Could we judge all deeds by motives, See the good and bad within, Often we should love the sinner All the while we loathed the sin. Could we know the powers working To overthrow integrity, We should judge each other's errors With more patient charity.

If we knew the care and trials, Knew the effort all in vain, All the bitter disappointment, Understood the loss and gain, Would the grim, eternal roughness Seem, I wonder, just the same? Would we help where now we hinder? Would we pity where we blame?

Ah! we judge each other harshly, Knowing not life's hidden force; Knowing not the fount of action Is less turbid at its source. Seeing not, amid the evil, All the golden grains of good. Oh! we'd love each other better, If we only understood.

—Lillie Sheldon.

How Uncle Dave Made an Encyclopedia.

"I do wish," said Rob to Uncle Dave, that we had an encyclopedia in the house! I so often want information on different subjects, and it is not always convenient to go to the public library.

"Well, why don't you make one?" said Uncle Dave. "Make one!" cried Rob; "you are king, surely."

"Not at all," said his uncle, rising, and going toward his desk. "Have you ever seen mine?"

"No," said Rob, with eyes full of wonder, and following him across the room. Uncle Dave opened a drawer, and, taking out a good-sized book, laid it on the desk and invited Rob to examine it.

He opened it to the front, and found a neat index, each letter of the alphabet having a full page. Some of these were well filled with numerous subjects beginning with the same letter, while others had only a few. Under the letter A he found the words, "Ants," "Alphabet," "Alligators," "Apples," etc.; under B, "Beetles," "Buoys," "Banjo," "Bears," etc.

He turned to the page devoted to ants, and found scraps pasted in on the following subjects: "The Strength of the Ant," "An Ant Fifteen Years Old," "Work of White Ants," "Did the Ant Talk?"

Intensely interested, he turned to the next page and found the following subjects listed: "Ships," "Stags," "Swallow," "Seals," "Spinning-wheels," "Spiders," "Sponges," etc.

He turned to the page which referred to snails, and became interested in knowing that snails possessed quite an affection for each other, and that large farms in Switzerland are devoted to the raising of these small beings. He laughed outright when he read that, if a snail lost his head, and was put in a cool place, a new one would be grown.

Why, Uncle Dave, I think this is just splendid! Do you think I could ever make one like it?"

There is no reason why you should not, my boy. All you need do is to examine carefully every paper that passes through your hands. Much valuable information on every subject is too often thrown away into the waste basket, or used to kindle the kitchen fire.

—Sunday School Times.

Age of the Earth.

It must appear to many thinkers, that their substantial meaning after they reach the million stage; the fact that we can count seven or ten or a hundred million does not mean that we can grasp what these millions have power to effect or that we can follow them out into the beginningless tract of time and space.

However, to such people as may think they are able to follow battalions of figures it may be of interest to give the latest opinions on the work of the geologists. Lord Kelvin estimates the age of the earth, since it was sufficiently cooled to become the abode of plants and animals, at about 20,000,000 years, within limits of 10,000,000 or perhaps ranging between 15,000,000 and 30,000,000 years.

His estimate, nearly agreeing with another by Clarence King, from similar physical data, has generally been regarded by geologists, says Warren Upham in The American Geologist for October, 1897, as short for the processes of sedimentation, erosion, and for the evolution of floral faunas, of which the earth's strata record. More probably, as ratios and computations by Dana, Wolcott, and other geologists somewhat harmoniously indicate, the duration of time since the beginning of the earth has been three to five times longer than Kelvin's estimate, or 60,000,000 to 100,000,000 years.

The larger figures imply from the dawn of life to the development of the Cambrian and Silurian faunas probably 50,000,000 years, thence to the end of Paleozoic time perhaps 30,000,000 years; onward through Mesozoic time about 15,000,000 years, and through the Tertiary era about 5,000,000 years. The comparatively very short Quaternary era, having in its organic evolution, as shown by the marine mollusca, no higher ratio to Tertiary time than 1.50, may therefore have occupied only about 100,000 years.

—Catholic Quarterly.

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His Cap as Security.

Mr. and Mrs. Blank were lingering over a late breakfast on Sunday morning when a loud ring of the bell announced the presence of some one outside of their door whose business seemed to be urgent. The maid answered the bell and discovered a small boy, who looked as if he had been blown in with the storm.

"Is the gov'nor here?" he asked. "You mean Mr. Blank?" "Yep, you're right again."

"What is your business?" "Just tell him that Petey wants to see him most per-tic-lar. Got that? Most per-tic-lar."

The maid was so impressed with Petey's style that she carried in his message, and Mr. Blank went out to look at his visitor.

"You're the gov'nor?" said the small boy, inquiringly. "Yes." "And I'm Petey."

"Petey, you know." "Well, I did not, but I do now." "Yes, an' your walk ought to be cleaned."

"That seems to be a fair statement, Petey," said Mr. Blank. "Well?" said Petey.

"Yes." "I'm the man to do the job for you. I'll shovel her off for, let me see. Well, seeing it's my first job for you, I'll make a deduction. I'll do her up in good shape for 25 cents."

"We will call that a bargain," said Mr. Blank. "An' I'll just ask for the loan of a shovel while I'm doing it."

Mr. Blank began to hedge a bit at this suggestion. "How do I know that you won't run away with the shovel?" he asked.

Petey's expression was changed for a moment, and then he said: "Well, gov'nor, I'm off my beat up here or you'd know I was honest. I'll tell you what I'll do now; I'll let you hold my hat while I have your shovel," and he pulled off a ragged cap and held it out.

"But this wouldn't be much security," said Mr. Blank. "The shovel is worth a dozen caps like this."

"Why, gov'nor, I wouldn't dare to go away with your shovel. Do you think I could face my mudder without my hat—do you, now?"

"Why?" asked Mr. Blank. "Why! Why, because she'd lick me for sure," and Petey's manner was so convincing that Mr. Blank let him have a shovel, and, what is more, he got it back again. Petey added another house to his "regulars," and Mr. Blank has registered boys' caps as available securities if an occasion arises when such a thing should be necessary.

—New York Sun.

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D. C. Nellis, Sec'y and Treas.

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THE STRAY LAW.

Editor Kansas Farmer:—Will you please publish full directions for posting a stray animal when taken up by any person? Is it necessary to publish it in a county paper? **SUBSCRIBER.**
Jewell, Kans.
Full directions covering Subscriber's first inquiry are contained in the stray law, which may be found at the head of the "Stray List" in this week's paper. It will be seen that no publication, other than that in the Kansas Farmer, is required.

KNOWS ITS VALUE.

Editor Kansas Farmer:—Inclosed I send you cash to cover subscriptions under your "Blocks of three" proposition. I find that a good many take some cheap Eastern paper. I don't see why they don't take the London Times and then adapt its plans to this Western country. I will make an estimate of what the Kansas Farmer is worth to me or any other Kansan:

Agriculture, per year.....	\$3.00
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Wichita, Kans. J. C. SHAFER.

THE STATE BIRD SHOW.

The annual show of the State Poultry Association, last week, at Topeka, was, as anticipated, a record-breaker in many respects. Financially and otherwise it was a grand success. Every premium was paid in full, and a surplus left in the treasurer's hands after all bills had been paid. Everybody seemed to enjoy themselves, the best of feeling existing throughout the week, and all went home so well pleased with the treatment received that they voted to hold the show at Topeka again next year.

The officers elected are as follows: President, W. M. Congdon, of Sedgwick; secretary, Col. J. W. F. Hughes, Topeka; treasurer, Thomas Owens, Topeka; directors, L. V. Marks, Topeka; George H. Gillies, Topeka; George Topping, Cedar Point; J. H. Scott, Lawrence; C. M. Rose, Elmdale; M. L. Canfield, Belleville.

A report of the awards will be given in full next week.

KANSAS BIENNIAL.

There has just appeared from press the Eleventh Biennial Report of the Kansas State Board of Agriculture to the legislature of the State, for the years 1897 and 1898, containing information upon the most profitable methods of beef-production, pork-production, and the rearing of farm poultry; also upon the mineral resources of Kansas, and a careful analysis of the State's agricultural statistics, for the preceding twenty years, together with tables, statements, summaries and diagrams showing the population, products, progress, assessed valuation and general development of the State. There are 848 pages; 130 illustrations. The book has been prepared with the ability, precision and comprehension of the subjects for which F. D. Coburn, the secretary of the board, has become famous.

As yet no postage fund for mailing

this report has been provided by the legislature. To those who desire it, and forward the necessary 29 cents for postage, the volume will be promptly sent.

ANNUAL MEETING OF THE STATE BOARD OF AGRICULTURE.

The greatest agricultural meeting of the year in Kansas—the annual meeting of the State Board of Agriculture—was held in the Capitol Building, at Topeka, last week. It brought together, as usual, a jolly lot of men, as strong in mind as in body, keen and quick at repartee, ready to swap experiences with everybody, and prepared to take home large consignments of new and valuable ideas and enthusiasm for their calling. These men have nothing about them to suggest the cheap cartoon of the farmer with which the alleged humorous papers are wont to embellish their pages. Not one of them had the familiar ring of whiskers about his throat. Not one carried a pitchfork in his hand, although when occasion was offered there was unmistakable evidence that many a member had at his command weapons of sarcasm and irony as sharp and potent as the proverbial pitchfork.

The attendance of wives of members was larger than usual. This doubtless betokens better times among the farmers, and is a custom which may be continued and made more universal with advantage to the meetings.

As to the program—nobody can predict from the program of one year, or the programs of five years, what Secretary Coburn will bring forth the next time. One thing, however, is sure. Nobody ever allows any discount on his expectation that the program will be interesting, the papers and discussions valuable. The meeting is always kept so thoroughly in control that the prolix talker does not waste the time. In almost all cases the addresses were reduced to writing, as every such address should be. The discussions brought out valuable experiences and were to the point. Some of the papers presented experiences not before reported to the public. An example may be cited from the paper on alfalfa, by Mr. H. D. Watson, of Kearney, Neb. It has been generally conceded that alfalfa monopolizes the ground on which it grows, and will starve any grass or plant which may try to grow with it. Mr. Watson finds, however, that alfalfa and blue grass are congenial neighbors, the blue grass occupying the otherwise vacant spaces among the alfalfa plants. The danger of bloat in ruminating animals pastured on alfalfa, is found by Mr. Watson to be entirely obviated in fields set with the mixture of blue grass and alfalfa, while fresh herbage is furnished during many months of the year. Several farmers were heard to state that the information contained in this one paper, by a man who has 1,800 acres in alfalfa and 1,000 acres ready for seed next spring, was worth the entire trip to Topeka.

The most important papers presented will be given in the Kansas Farmer as rapidly as space will admit.

The following officers were elected: President, Thos. A. Hubbard, of Rome; vice president, Edwin Taylor, of Edwardsville; treasurer, Edwin Snyder, of Oskaloosa; (the secretary holds over). The terms of five directors expired, and their places were filled as follows: Charles Sutton, of Russell, to succeed his father, Hon. W. B. Sutton, who has turned the farm over to his sons and resumed the practice of law; Senator G. W. Hanna, of Clay Center, to succeed himself; Hon. Geo. W. Glick, of Atchison, to succeed T. A. Hubbard, elected to the presidency; Ed. R. Smith, of Mound City, to succeed himself; J. T. Cooper, of Fredonia, to succeed Hon. W. J. Bailey, elected to Congress.

STATE VETERINARIAN.

Under our present laws, the work of the state veterinarian is performed by the professor of veterinary science at the State Agricultural College. This arrangement would be almost unobjectionable were not the undivided services of a strong man needed at the college. When he goes away at the call of the live stock sanitary board, or other authority, he has not only to leave his classes of students, who suffer loss on account of his absence, but he has, also, to drop whatever investigation he may have in hand, no matter how important or how expensive.

Two remedies have been suggested, either of which would, if adopted, relieve the college of the disadvantage incident to sudden and irregular calls upon one of its professors, and, at the same time, make available more service for the general live stock sanitary work of the State. The first of these propositions is to provide a competent second veterinarian for the college. This would prob-

ably enable the veterinary department to enlarge its experimental work; would provide for uninterrupted class-room work, and would place a veterinarian subject to call of the sanitary commissioners and the governor without destructive interference with the college work.

Another plan which has been proposed is to create the office of state veterinarian as an addition to the live stock sanitary board.

The Fine Stock Breeders' Association, at its annual meeting, last week, recommended still another plan, by adopting the following resolutions, introduced by ex-Governor Glick:

Resolved, 1. That the Kansas Improved Stock Breeders' Association of the State of Kansas in annual meeting assembled, respectfully request that the governor in the future appointment of the members of the live stock sanitary board of this State select for one member of said board a thoroughly educated and competent veterinary surgeon.

2. That a copy of this resolution be presented to the governor as soon as possible by the president and secretary of this association.

This plan would relieve the college and provide for the general veterinary work of the State with but slight addition to present cost of the work of the sanitary board.

THE FARMERS' INDUSTRY BRINGS BIG BALANCES.

During the calendar year 1898 the United States exported \$621,260,535 more of merchandise of all sorts than it imported, or a gain in excess of exports over 1897 of \$264,146,719. These enormous figures represent the balance in our favor, shown by the official figures issued by the Bureau of Statistics for the year 1898. The bureau's statement covers the month of December and the year 1898. It shows that our exports for the year 1898 were \$1,254,925,169, and our imports \$633,664,634, of which \$267,797,915 came in free of duty.

The statement makes comparisons with our trade for the five years immediately preceding the past, the largest exports for any of these years being \$1,099,709,045, in 1897, and the smallest, \$824,860,136, in 1895. The only other billion export year was in 1896, when we exported \$1,005,837,241. The imports for 1898 were the smallest in any of the six years compared, being \$633,664,634, against \$742,595,229 in 1897 and \$801,669,347 in 1895, when the imports were the largest for the past six years.

The imports of gold for December, 1898, were \$8,639,882, and the exports \$1,219,638, an excess of gold imports of \$7,420,244, as compared with an excess of imports of \$2,004,409 in December, 1897. For the year 1898 the gold imports were \$158,036,252, and the exports \$16,194,954, or an excess of gold imports in 1898 of \$141,841,298, as compared with an excess of gold exports in 1897 of \$255,809.

Groves and Hedges.

Editor Kansas Farmer:—I was surprised to see that piece in the Kansas Farmer, last week, by A. C. Shinn, of Ottawa, read before the Franklin County Farmers' Institute.

I have lived on my present homestead for over thirty years and have planted about 15 acres of forest trees and a mile and a half of Osage hedge. I would not have my trees and hedge pulled up for anything.

Talk about the loss of corn. My experience is that when there is rain enough to make a good corn crop the loss from these trees is very small.

Mr. Shinn speaks about years back, when the State encouraged the planting of forest trees, but says that conditions are now changed. I would like to know how they are changed. I suppose some men have changed. They worship money more than they used to.

It is a delight to my eyes to pass along my hedge and groves during the hot days of the summer and see the beautiful song birds flitting around and building their nests, and the quail enjoying the shade while catching insects. I don't see how any man can condemn forest trees and hedge in this desert land. I hope there are not many such men.

DAN KERSHNER,

Scandia, Kans.

England pays Denmark more than \$20,000,000 annually for butter. Having educated her people to become expert butter-makers through her experiment station and dairy school, Denmark next undertook experiments in feeding pigs and the curing of bacon and other pork products. Since 1880 more than \$50,000 was expended in this one line of effort, and the best scientific talent of the country was employed. Until Professor Henry's work on "Feeds and Feeding" appeared these extensive and invaluable experiments were not available to our people because they were printed

in the Danish language. In his book on "Feeds and Feeding" Professor Henry has devoted a whole chapter to the Danish pig-feeding experiments.

KANSAS BREEDERS' ANNUAL MEETING.

The ninth annual meeting of the Kansas Swine Breeders' Association and the Kansas Improved Stock Breeders' Association, held in Topeka last week, was the most successful and best attended of any session ever held. The papers, addresses and discussions were spirited and practical, and the business accomplished exceeded by far that of any other meeting.

The consolidation of the two associations into one, to be known hereafter as the Kansas Improved Stock Breeders' Association, was a decidedly good move and will result in good for all who are interested in pure-bred stock improvement, as one strong association, rather than two or more weaker ones, will be effective for future work for the benefit of live stock interests.

The association unanimously passed a resolution asking the governor, in selecting the members for the live stock sanitary board, to see that one shall be a practical veterinary surgeon.

The most important business transacted at this session was the work for a State fair or a Kansas State exposition. A resolution was passed asking the legislature to appropriate a guarantee fund of not less than \$20,000 per annum, and a committee was appointed, consisting of O. P. Updegraff, Topeka; J. W. Robison, of El Dorado; C. A. Stannard, Emporia; C. M. Irwin, Wichita; G. G. Burton, H. W. Cheney, and H. A. Heath, the secretary of the association, Topeka, to have the matter in charge.

The State Board of Agriculture the next day passed the following resolution:

Resolved, That a committee of five be appointed by the chair to prepare and have presented to the present legislature a bill providing for an annual State fair, and making a suitable appropriation for that purpose, and that the committee confer with the committee appointed for a like purpose by the Kansas Improved Stock Breeders' Association.

The State Board of Agriculture appointed the following committee: W. B. Sutton, Kansas City, Kans.; C. E. Westbrock, Peabody; A. C. Shinn, Ottawa; A. W. Smith, Groveland, and the new president of their board, T. A. Hubbard, of Sumner County. These two committees met and drafted a bill, which provides for the holding of a Kansas State exposition under the auspices of the Kansas State Board of Agriculture. This bill is to be introduced in both branches of the legislature this week. It now rests with the legislature whether or not we shall have a representative State fair in Kansas. All who are interested in such an enterprise should take up the matter with their representatives in the legislature by letter at once.

In response to the suggestion made by President Babcock, of the association, in his annual address, a committee was appointed to prepare suitable resolutions regarding the death of Chas. S. Cross, of Emporia, ex-president of the association. They reported the following resolutions, which were unanimously adopted:

Whereas, Since the last annual meeting of this association there has been taken from our ranks by an untimely death that prince of stockmen, and generous and whole-souled associate, our former honored president, Charles S. Cross, in the prime of his life and manhood, be it

Resolved, By the Kansas Improved Stock Breeders' Association, in our ninth annual meeting assembled, that we, as individuals and as an association, are inexpressibly grieved by the loss of our beloved friend and fellow breeder, in the prime of his usefulness and at a time when he was capable of such helpful influence upon not only the breeding interests of Kansas but of all America as well. That we deeply mourn with her who was his loving wife and devoted companion, together with all other members of his sorrowing family, and extend to her and them our deepest and heartfelt sympathy in this hour of great bereavement.

Resolved, That our president and secretary are instructed to have engrossed and duly forwarded to the widow of our departed friend a copy of these resolutions, and further, that they be made a part of our report of this meeting and the proceedings of our association.

G. W. GLICK,
T. A. HUBBARD,
J. W. ROBISON,

Committee.

The association has made provision for publishing the complete proceedings of this meeting, together with a complete list of the membership and the class of stock bred by each. This report will be a valuable handbook for the stockman and farmer, which will be distributed by members of the association, or copies may be had when published upon application to the secretary.

The officers elected for 1899 are as follows: President, C. A. Stannard, Emporia; vice president, J. E. Hoagland, Holton; secretary-treasurer, H. A. Heath, Topeka; directors—T. A. Hub-

ard, Rome; F. P. Maguire, Haven; S. Sawyer, Manhattan; C. E. Westbrook, Peabody; H. W. Cheney, North Topeka.

Owing to the fact that several State conventions were held last week, we are unable to give more than a small portion of the proceedings this week, but the principal papers and discussions will be published in later issues.

The Stock Breeders closed their meeting by a banquet, prepared by Topeka's celebrated caterer, Mrs. Wiley. In addition to the members of the association present, they also had as guests Governor Stanley, Hon. W. J. Bailey (the new Congressman-at-large), Speaker Osborn, President Will and Prof. Cottrell, of the State Agricultural College, and several members of the legislature and State Board of Agriculture. Besides the usual toasts, the principal topic of the evening was the question of the Kansas State exposition, which was discussed by the guests of the association, who seemed enthusiastic concerning such an enterprise for the State, which, of course, was very gratifying to the breeders.

The present membership of the Kansas Improved Stock Breeders' Association is nearly double that of the combined associations one year ago. Every breeder of pure-bred stock in the State of Kansas should by all means become a member of this association on account of the good accomplished by it for the benefit of the farmers and stockmen of Kansas.

It was gratifying to note the recognition given to the Kansas Farmer by many of the speakers and writers of able papers at the Breeders' meeting. They seemed to appreciate the "Old Reliable" as an authority and helper to the stockman and farmer in his vocation.

Is There a Tax on Bachelors?

Editor Kansas Farmer:—I would like to inquire whether our State has a right to tax its single citizens for the benefit of married ones. I contend that we are not citizens of any State but are all citizens of the United States, and I would ask: Does the Federal constitution permit any State to misuse its citizens by an unjust tax? What I mean, more particularly, is this: Can Kansas tax a bachelor United States citizen more than a married man? If it can, would not a law permitting it be contrary to the Federal constitution?

PHILIP BIRK.

Alta Vista, Kans., Dec. 12, 1898.

We do not know of any case where the law of Kansas taxes an unmarried man more than it would a married man where the conditions of property are the same. Possibly our correspondent has in mind the fact that the head of any household has exempt from taxation household goods to the value of a certain amount. We are not inclined to think that this is an unjust arrangement as against bachelors, for each one of the latter class can easily place himself under the benign influence of the condition of this law. As to this remedy, whether it is worse than the disease, we leave each bachelor to decide for himself.

Spring Wheat.

Editor Kansas Farmer:—I wish to try a crop of spring wheat, and any information you can give me in regard to the best variety to sow, etc., will be much appreciated.

There is no spring wheat grown in this neighborhood, and farmers say it will not do well. But I have found no one who ever tried it here, so I am going to make the experiment. I enclose stamp, so, if you think this is not of sufficient interest to answer in your paper, you can answer by letter. There is a spring wheat grown in Oregon, known as Sonora spring wheat, which matures very quickly and, I believe, would make a crop. Do you know whether it can be obtained in Kansas, or not? Any information you can give me on this subject will be much appreciated.

R. H. CORUM.

Duquoin, Harper, Co., Kans.

Kansas is not preeminently a spring wheat State. Nevertheless, considerable spring wheat is sown and harvested each year, especially in the northwestern counties. In 1898 Kansas had 119,272 acres of spring wheat, from which 1,116,556 bushels were harvested. The counties which produced over 10,000 acres each are: Cheyenne, 14,159 acres, from which were harvested 155,749 bushels; Decatur, 16,813 acres, and 184,943 bushels; Norton, 12,012 acres, and 144,144 bushels; Rawlins, 13,304 acres, and 106,432 bushels; Sherman, 22,563 acres, and 203,067 bushels; and Thomas, 13,056 acres, and 91,392 bushels. Our correspondent's own county (Harper) had but 391 acres, and 2,737 bushels.

It will be well to correspond with F. Barteldes & Co., Lawrence, Kans., or

some other reliable seed house, as to procuring the Sonora or other desired spring wheat for seed.

Alfalfa as Food for Swine.

By Geo. W. Watson, Kinsley, Kans., read before Kansas Swine Breeders' Association.

No swine breeder should try to raise hogs in Kansas without an alfalfa patch, varying in size in accordance with the number of hogs he desires to raise. One acre of well set alfalfa will pasture at least fifteen head of hogs and then furnish hay enough to winter them. The alfalfa-fed hog is practically exempt from cholera, and this applies to either the pasturing in summer or to the hogs fed on alfalfa hay in the winter. A pig fed on alfalfa hay will do better on one-half the grain required to winter the pig without hay. In putting up the hay for pig feed it should be put in the stack very green, simply allowing it to wilt about twenty-four hours, and that in the windrows instead of in the swath. I have known pigs wintered here in western Kansas on hay alone without being fed any grain whatever. We do not feed our pigs anything in the summer except alfalfa. That is, after the pig weighs 60 to 70 pounds, we cut off the grain feed and the slop feed entirely, and put them out in the pasture where they have plenty of alfalfa and plenty of water. We turn on the alfalfa about the middle of April and they run there until winter. I would not recommend that over 15 head to the acre be turned into the pasture unless your alfalfa is three years old. With 15 head to the acre with reasonable season you will have to mow your alfalfa regularly the same as you would your other fields where no stock is allowed to run, but the yield of hay will not be so heavy.

Last year we fenced in 160 acres of 1-year-old alfalfa and produced from it shoats to the value of \$1,700, before feeding time, from 90 sows, and then had twice the number of sows left to carry over for the next year.

In either thoroughbred or common stock, the alfalfa pig is superior to its mate of the same breed raised without alfalfa. I am now handling nothing but thoroughbred Poland-Chinas, and my pigs do better and sell better upon examination than my neighbors' pigs that are not fed upon alfalfa but are of as good breed.

I do not believe that there are very many farms in Kansas where a piece of land can not be found that is good for alfalfa, or could be made so alfalfa would grow upon it, so as to make a hog pasture for from 50 to 100 hogs. Nearly all of the creek bottoms will raise alfalfa. The heavy clay land requires extra work in the way of subsoiling, and should slope enough so as to drain it. The great danger in clay land is the roots will penetrate to a certain depth and be there checked by the heavy soil or clay; and the water following, and not being able to penetrate deeper, the roots will rot. Alfalfa is a deep rooter and we have instances of roots 20 to 30 feet long. On the Arkansas Valley the roots go to the water, 10 or 15 feet, in about three years. As to the cost of raising pigs on alfalfa, as compared with grain fed pigs, our experience in the Arkansas Valley is that it does not cost us over half as much.

Thirty Poisonous Plants of the United States.

In order to supply the great demand by farmers and others for information in relation to poisonous plants, the United States Department of Agriculture will soon issue Farmers' Bulletin No. 86, entitled "Thirty Poisonous Plants of the United States." It was prepared by V. K. Chestnut, Assistant Botanist.

The Division of Botany has during the last three years been collecting general and specific information concerning poisonous plants, and has investigated a number of cases of poisoning which have been reported to the Division. By communicating with the physician who had charge of each case, accurate and full data were obtained with regard to many plants.

This bulletin contains descriptions of 30, and illustrations of 24 of the most important poisonous plants of the United States. The poisonous character, localities where found, and symptoms of poisoning are also briefly described. The bulletin says that owing to a lack of statistics it is impossible to form even an approximate estimate of the damage done by poisonous plants. A number of children are killed annually by the various species of water hemlock. Many cattle are also killed.

All poisonous plants are not equally injurious to all persons nor to all forms of life. The poison ivy, for instance, acts upon the skins of the majority of

persons, but with varying intensity. Many people are probably wholly immune, and it has no apparent external effect upon animals. There is a large number of poisonous plants which are comparatively little known. This bulletin considers those only which are well known to be poisonous to a dangerous degree.

The bulletin is for free distribution, and may be obtained of Members of Congress or by applying to the United States Department of Agriculture.

Gossip About Stock.

Geo. Channon, Hope, Kans., who recently purchased a pig from an Iowa breeder, writes: "I don't want any more hogs from the East. It is terribly dangerous business."

Kansas breeders of swine will please remember that the thirteenth annual meeting of the stockholders of the Standard Poland-China Record Association will be held in Maryville, Mo., on Wednesday, February 1, 1899, commencing promptly at 9 a. m.

The American Galloway Association, Frank B. Hearne, secretary, Independence, Mo., has recently gotten out a little booklet on Galloway cattle, that gives the essential facts about the breed. It is valuable to all interested in cattle. It will be sent free to anyone requesting the same and mentioning Kansas Farmer.

Dietrich & Spaulding, Richmond, Kans., write: "Our Poland-China hogs are in good shape. The boars which we are advertising are of the best pigs we raised last year. One of them we have held to head somebody's herd. He was sired by Highland Chief, and traces to Empress Corwin by Lord Corwin 4th. We will make prices so low that a person can buy these boars and keep them until he has use for them. Our reason for disposing of them now is to make room for our spring crop of pigs which are about due to arrive."

A splendid lot of bred Poland-China sows from the Lawn Ridge Herd of J. E. Hoagland, Holton, Kans., and from the Ashland Farm Herd of M. C. Vansell, Muscotah, Kans., will be sold at Holton, Jackson County, Kans., on Wednesday, February 1, 1899. The Lawn Ridge offering consists of fourteen proven sows, and six gilts, among the best in the herd. The sows are bred to Hoagland I Know 19633. The offerings from Ashland Stock Farm Herd are by such noted sires as Chief K 15708, a son of Chief Tecumseh 2d, and Goldbug 18698, a grandson of old Free Trade. Everybody is cordially invited and catalogues may be had from J. E. Hoagland, Holton, Kans. Bids by mail or wire should be sent to Col. S. A. Sawyer, in care of Mr. Hoagland.

One of the most important features in connection with the National Live Stock Convention which meets at Denver, Colo., on the 24th will be a stock register for the use of the delegates and visitors. Nearly every stockman attending the meeting will have stock to sell or wish to purchase. The register, which has been made under the direction of Mr. F. A. Keener and B. Frank Hunter, especially for this purpose, will be kept in the lobby of the Grand Opera House and in charge of a competent man with a wide acquaintance among stockmen. Everyone interested in this, as well as all delegates, will have the privilege of registering their names, postoffice address and whether they desire to buy or sell, as well as the amount. This will serve as the means of making stockmen acquainted with each other and facilitate business. Any person in any portion of the Union, who is prevented from attending the convention, can have his wants registered by sending them to the recording secretary of the association.

McIntosh & Peters, Kansas City stock yards, write: "That the past year has been the most prosperous one since the birth of Kansas City, as a great live stock market, no one at all familiar with the situation can doubt. And while the cattle receipts were about nominal with 1897 the combined receipts show an increase of nearly 85,000 head, a total of 6,569,000 head, valued at \$113,000,000; both receipts and valuation the largest on record. The best corn-fed cattle, when finished, have shown the greater remuneration for their feed and care. Half fat cattle have not been money makers. Few people realize the position Kansas City occupies as a stocker and feeder market, when 643,000 head of cattle returned to the country at a cost of \$19,000,000; Kansas putting \$8,000,000 into this class of cattle; Missouri \$1,000,000 less. The year 1898 broke all previous records in the West when the hog product is considered. Kansas City received 322,000 more hogs than in 1897, an increase in the past five years of 100 per cent."

Publishers' Paragraphs.

B. F. Smith, of Lawrence, again places his strawberry plant advertisement in this paper. He has been growing these plants in Kansas since 1866, thirty-three years. During that time he has sold over 9,000,000 plants, and with all the advertising done he says the Kansas Farmer has brought him twice as many orders as all the other papers.

A Book About Fruits.—Assuredly the most complete, practical and interesting nursery catalogue of the year is that issued by E. W. Reid's Nurseries, Bridgeport, Ohio. No better example of combined good sense and good taste could be offered those interested in fruit raising than this book, which will be mailed to anyone who writes for it. In it will be found clear and

Clergymen Can Make Money

We offer profitable employment and outdoor life, acting as agent for The Ladies' Home Journal known everywhere as the high-grade monthly publication having the largest bona-fide paid circulation in the world—850,000 copies each issue. Agents wanted to look after renewals and secure new subscribers.

The Curtis Publishing Company Philadelphia, Pa.

detailed descriptions of many new and desirable varieties of fruits, trees, small fruits and vines (which are introduced only after being thoroughly tested), as well as all worthy standard nursery stock. The catalogue contains besides, interesting facts about this enterprising and reliable nursery firm, and much information that should be read not only by fruit growers, but by everyone who owns enough land on which to plant a tree or a vine.

Armour's Farmers' Almanac for 1899 is something entirely new in the field of almanacs—a readable, valuable book of popular and practical information, unlike the old-style patent medicine almanacs one is accustomed to. It teaches much that is new and useful about the successful growth of crops, vegetables and fruit in field, garden and orchard; instructs intelligently as to the use of proper fertilizers, etc. It is printed artistically, its little jokes are clever and modern—it will remain a book of value to all the household throughout the entire year. Armour's Army and Navy Art Calendar for 1899 is a series of six beautiful, large-sized lithographs tied together with silk ribbons, illustrating the pleasant side of the American volunteer's life in several of its phases, and is the handsomest article of this kind ever given away by anyone, a real ornament to the room in which it hangs. Both the Almanac and the Art Calendar above described will be sent free to all readers of this paper who desire them and will enclose 15 cents in stamps to cover cost of packing and postage to Armour & Company, Chicago.

Burpee's Farm Annual for 1899, advertised in another column, is decidedly the brightest and best catalogue ever published by W. Atlee Burpee & Co., the well-known Philadelphia seedsmen. It is a handsome book of 176 pages, elegantly bound in heavy lithographed covers, the front of which shows a picture of their mammoth new seed warehouse, erected in 1898, surrounded by "red, white and blue" sweet peas. On the back is shown bird's-eye views of their famous Fordhook Farms—the most extensive trial grounds in America. One colored plate represents a plant with natural sized flowers of Burpee's Bush Sweet Pea, the first of a new race, while the other colored plates show New Combination Tomato, Fairy Queen Pansy and six of the finest new sweet peas. The directions for culture, while concise, are very complete for every variety of vegetable and flowers. The hundreds of illustrations are engraved from nature, while many novelties of real merit are offered for the first time. Among the new features for 1899 is a novel offer of special premiums at every State and county fair aggregating in all thousands of dollars in cash prizes for the best products of Burpee's seeds. Although such a handsome and expensive book to publish, it is mailed free to every planter upon application.

A correspondent, Mr. Jas. J. Branick, of Chicago, Ill., writes that he is anxious to read the experience of practical farmers in the use of salt as a land fertilizer. Anyone who has tried it is invited to print his experiences in the Kansas Farmer.

Havana, Cuba.

All about the city, country, price of property, lands, resources, climate, where, when and what to invest in. Fortunes can be made here quickly on small investments. Address, with 25 cents in stamps, The American Realty Co., Havana, Cuba.

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 Co., Topeka, Kas.

Horticulture.

EXPERIMENTAL HORTICULTURE.

By Prof. E. E. Faville, Stenographic report of address before the Kansas State Horticultural Society, December 29, 1898.

Mr. President:—As chairman of the Committee on Experimental Horticulture, I will first say that I take it that this discussion relates to the work of experimental horticulture in Kansas. I believe that every member of this society should be an experimenter more or less. That he should work in the lines that are in their nature experimental and should take an interest in the matters brought up in this society or elsewhere relating to experiments. A great benefit has been derived and has accrued to Kansas people by reason of the experiments that have been carried out. First, in considering the matter, and in starting out, we want to get on the right track. It reminds me of the story told me in my early days. One good Methodist clergyman was riding the circuit, and he came to a cross-roads. One road pointed one way and one another. At the point of the roads a boy was standing. The minister said: "Which one of these roads goes to Bloomfield?" The boy looked at the horse. The minister again spoke to him and said: "Which one of these roads goes to Bloomfield, boy?" The boy didn't answer, but stood looking at the horse. The minister repeated the question, when the boy slowly raised his eyes and said: "Who might you be?" The minister replied I am a follower of the Lord." The boy said: "It don't make any difference who you are a follerin', you will never catch him on that horse, no matter which road you take."

Give attention to getting on the right track and then be sure you are riding the right kind of a horse. The nursery-men of Kansas have done much to build up our varieties and benefit the people of Kansas. They have done valuable work in experimental horticulture. If it had done nothing more than to find out the Kansas raspberry, which was originated by one of the members of this committee, it has accomplished its mission. I believe that if ever any monument is built in honor of any Kansas production, it will be to this raspberry.

There is another point that is claiming the attention of other States than Kansas, and this is the crossing of our fruits in the endeavor to produce new varieties. There is one mistake that is made, and that is attempting to cross fruits for the quality without making an effort to also obtain hardiness. We must have both. This we have been trying to do at the Kansas Experiment Station. Attention must be given to the plants that we are trying to cross. They must bloom at nearly the same time. Certain plants will not cross with others because they ripen at too wide intervals. We have on the grounds at the Agricultural College, nearly all the varieties that we think can be grown in Kansas. It is impossible to experiment in one locality for the benefit of the entire State. The experiments which we make can be of some general use to the people of the entire State, but they cannot be made generally valuable unless they extend to different parts of the State. The conditions at our experiment station are different to what we have in western Kansas. If we could, in carrying on this work, not make it local, but widespread; that is, have our experiments conducted in different parts of the State, they would be of vastly greater benefit.

I spent some time and trouble in western Kansas endeavoring to see what they were doing in the way of horticulture. They are experimenting there in a practical way of introducing vegetables, and are especially experimenting in the proper manner of cultivating and caring for their orchards. Last year I sent out to a number of the leading farmers and men interested in fruit-growing, varieties of trees to plant. Dr. Bohrer has spoken of the methods that are employed in western Kansas especially in regard to soil mulching. In southern Kansas, where the winds blow, there is an orchard which has been irrigated which produces as good fruit as any I have seen in Kansas. Now, the method that was employed in planting was to dig the ground down, and get it in good condition by subsoiling and cultivating before planting. To that orchard, I wish to call your attention. When he first broke up the land he permitted it to lay over two years, then he dug down in cultivating it. He used a subsoil plow, breaking the soil up to a depth of 18 inches. Then he sowed a crop of corn. Then he cultivated it again, and left dead furrows where he expected to plant

his trees. He planted 15 acres of trees. He kept it closely cultivated and planted to corn for the first three or four years, and since that time has kept it cultivated. In the early spring he gives it deep cultivation, and when early summer comes, he simply breaks the ground a little below the surface, just enough to keep the weeds out. He has never needed any more irrigation in that orchard.

In testing different varieties and taking care of the trees, I will say that you must bear in mind Kansas conditions. The conditions are different in almost every locality.

Another thing that we do is cutting back the peach trees. We get larger yields and better fruit by doing that.

Question: What time do you do the cutting?

Answer: Usually shortly after New-year's; any time from now on till the leaves come out.

We have been practicing bagging on the grapes, and we have come to the conclusion that it does pay with some varieties, that is, it increased the size of the grapes with some varieties and they ripened earlier.

In regard to varieties of strawberries, we have been carrying one hundred and fifty or more varieties at the Kansas Experiment Station, and there are a great many varieties that we have not got. There are numerous varieties that will not grow in that section, so you see that the locality and conditions have a great deal to do with the different fruits, and that is the reason that you will find one man claiming a fruit to be a success, in one locality, while another man claims it to be a failure, simply because the conditions and locality are a little different. In order to make these experiments successful and of general benefit to the State, they must be widespread. Every individual must experiment for himself. Don't look for too much from the neighbors; that is one mistake many make, by taking what somebody else says as true.

Query: How much do you cut back peach trees?

Answer: From one-third to one-half. I am not in favor of pruning them any more than I have to. In western Kansas, where they are planting these wind-breaks, they very seldom prune their peach trees.

Question: Suppose the tree has gone for four years without any pruning?

Answer: Prune the previous year's growth only.

Query: Have you ever pruned them before they stopped the season's growth?

Answer: Yes, sir. But if it comes off warm, and starts a growth again, it hurts them. I find that to be the trouble.

Query: What about trees that have gone for five or six years and made good growth? Could you cut them back one-half; say, two or three years' growth?

Answer: I would not advise that in Kansas. If you have done that be careful to cover the wounds.

Query: What is the result?

Answer: They can't stand the severity of the climate, and the stock is injured. A great many don't understand just how to prune, and they are liable to take a great many steps that are wrong.

Query: I have seen old trees that were not bearing cut back and made into good bearing condition. I have seen orchards treated that way where the trees were thought to be too old; they cut them back half way, and they came out a nice new growth. What would you think of that plan?

Answer: I think the time would have been saved by putting in new trees.

Mr. Dukelow: I had a peach orchard that became very old. I cut off all the limbs from these trees, and then in the summer I watched the trees, and the sprouts that came out, to see that too many didn't remain on the trees. I broke them off so as to make a regular top to the trees, and took care that there were not too many of them to draw the strength of the trees, and I have a fruitful peach orchard from the old one. That was in Reno County.

Query: Is the Imperial grape a late grape?

Answer: Yes, sir.

Query: I have one called the Colorado and one called the Colorado Imperial.

Answer: They are the same.

Mr. Cellar: I would like to know whether the gentleman has had any experience in cutting back apple trees?

Answer: We have tried it, but it has not been a success, except in some instances when we had an abnormal growth. We didn't consider that the trees were helped any. We have cut them back some, but it has not been a success with us.

Query: In what manner was it not a success?

Answer: It didn't seem to improve them any; I mean by cutting back the previous year's growth. We did have some success in pruning judiciously.

A member: I believe in cutting back peach trees after they have lost the top. The next crop that comes on will be like the peaches in a young orchard. When we plant a pear tree we cut all the limbs off and just leave the straight stick. We don't do that with the apple trees.

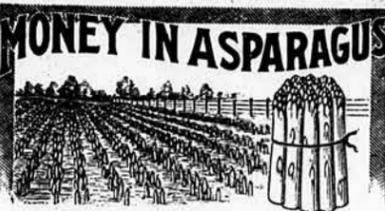
Mr. Van Orsdal: I believe in cutting the peach trees back; they will stand up better, you can gather the fruit better, but you must commence to cut them back early, and, after they are three, four or five years old, it is a good thing to trim back the peach trees.

Mr. Robinson: Last year I cut back peaches of ten or twelve years growth. I cut them with an ax and we got ten or twelve cords of wood out of the orchard. They started up a new growth and that new growth must be cut back some if it grows too fast.

Mr. Gray: I agree with my friends who believe in cutting back old peach trees. Cut them back and let them form new trees. I have trees 24 years old that have just as good peaches as any young orchard. The tops of the trees are all new. I cut them back about a half of each year's growth. I find that this is as good a way as I can do with the trees.

Major Holsinger: I think most of us have a mistaken idea in regard to the fruit of a peach tree. The young tree has a better class of fruit than the old one. It is the reverse with other kinds of trees. The old tree has a better quality than the young one. Take the old peach tree, however, and cut it back and then you will get a new growth which is almost equal to the new tree. The peaches will have the quality equal to the old tree.

A. H. Greisa: I have a few brief thoughts, but did not expect the extent of thought on this subject that has been presented before us. There are many serious objections to overcome in experimental horticulture. It is very essential in crossing fruits to know when and how the seed gets its pollen that imparts the qualities that will make a correct fruit or tree. It is my candid opinion that most all our seedlings, whether small fruits or orchard fruits, are never as good as they are often claimed to be by the producer. There is one thing that most any of us can do, that is, plant the seeds from the best fruits and watch their growth. You can tell in one or two years whether it will pay to keep the product or not. The Kansas raspberry, as I have repeatedly stated, was a chance seedling; it came up by the side of a peach tree, wide, thick and broad leaves. I had 2,000 raspberry plants that I had grown from seeds, which I had saved, and there were no two among them that seemed to resemble each other. None of them had leaves that looked like this one did. It was its appearance that made me select it, and let it grow until it fruited. Take the grape vines. A friend of mine had 3,000 grape vines in a vineyard; I suggested to him that if he would let me have the pick of these plants I would give him \$3 for six plants out of that lot. I only got one that was respectable, and it was not very good, not as good as the Concord, and out of the 2,000 vines that he had, all of his were worthless. I went on the theory that the large leaf, strong branches, and well developed bud indicate excellence. These are necessary with me in order to have a successful variety for productiveness. Just so with the apple tree. If one comes up with crooked limbs and unshapely body, you never need expect to get good fruit from it. The peach tree is the same way. If it has little, narrow leaves, you will have seedling peaches; if it has broad leaves, there is a possibility that you may get good fruit from it.



By H. W. Buckbee, Rockford Seed Farms, Rockford, Ill.

On account of its extreme earliness, asparagus always sells well and maintains a strong market value; every thrifty market gardener will find an acre or more of asparagus one of the very best investments. For the family garden it is one of the indispensables. It is a vegetable that keeps growing more in favor and paying better every year.

There is no easier vegetable to grow than asparagus, and beds when once es-

tablished yield more and pay better each season. As a long distance shipping vegetable it ranks among the very best; the plain truth is this—it makes money for the grower, yields a profit for the middleman and most of all pleases the consumer.

VARIETY TO PLANT.

The Columbian Mammoth White is the most satisfactory variety in cultivation. Not only are the stalks of the largest size, but they are produced abundantly and very early. They are nearly clear white in early growth and remain so in favorable weather until three or four inches above the surface. This sort commands an extra price, not only on a fancy market, but from canners, who find that when put up under a special brand it sells so readily at a higher price as to warrant them paying the grower an extra price for growing it.

We prefer to use only well grown 2-year-old stock.

SOIL.

The soil on which asparagus plants are transplanted must be made very rich. From one to two hundred loads of rich stable manure to the acre, well plowed in, makes a good start for a good crop. Select a good sandy loam sloping to the south, if possible; the ground should be plowed as deeply as possible and furrowed off from four to five feet apart; ground thus fitted enables the roots to take hold at once, which is of great importance, as the more strength and size gained on the roots each year places you that much ahead, and enables you to secure a good profit from your bed the second season after planting.

HOW TO PLANT.

We usually set the plants in early spring—as soon as ground can be worked—eighteen inches apart in the furrows, which have previously been prepared, with the rows four feet apart; will require 8,000 plants to properly



plant an acre. As illustrated, there is a right and a wrong way to plant; it requires a little more time to set the roots in proper shape, but it pays. The roots should be spread apart as shown in "right way" illustration and the crown covered with four inches of earth. By shallow planting, crops come earlier than if planted deeper. After planting has been done ground should be properly leveled and good cultivation given throughout the season. The bed should be well cleaned every autumn and salted at the rate of one barrel of salt per acre—as this stimulates the roots and retards the weeds. A good dressing of manure should also be given every fall.

BLEACHING.

The young shoots can be bleached and made extremely tender by covering with straw or leaves, and I would suggest that planters give this mode of bleaching at least a trial, as it is a worthy method.

Use a sharp knife and cut even with ground, as four times as many bunches can be secured as when cut below the surface. Late cutting is not advised, as the roots will become exhausted if the shoots are not allowed to develop. Remember, the leaves are the lungs of the plant.

BUNCHING.

The sprouts should be of good size when cut. Arrange in bunches, eight inches long, which should measure four or five inches across the butt end. After they have been neatly cut and tied, place the butts of the bunches in trays of water one inch deep, taking care to keep the tops dry. This prepares them for their journey to market and they arrive in nice condition when they are handled this way.

Use a light, new, clean case that will hold about two dozen bunches, stencil your name on each case, for if your asparagus pleases the purchaser your stock will always be in great demand and command a higher price than poorly grown asparagus.

This vegetable has been neglected until late years, but at the present time, with such growing demand, I predict a handsome income for all who grow it. Many growers have realized from \$500 to \$2,000 per acre and are growing it exclusively. I am positive it will pay every one interested in the garden to make a start at once. No garden, however small, should be without this truly good vegetable.

In the Dairy.

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

CLASS OF STOCK DEMANDED FROM BREEDERS BY THE DAIRY INTERESTS OF KANSAS.

There are two fundamental and indispensable factors in the dairy business—first, feed; second, a machine to convert that feed into milk. Kansas is especially blessed with an abundance of cheap and nutritious feed, which, when manufactured into milk, will yield handsome profits. Kansas is in her infancy as a dairy State; many of her farmers are in the transition stage from beef to milk, some holding on to beef with one hand and grasping for milk with the other. This undoubtedly accounts for so many of our Kansas farmers desiring a general-purpose cow, one that will raise a good calf for the block and then give milk for the creamery. When holding farmers' institutes in different portions of the State, the question is asked again and again: "All things considered, what is the best breed to use in grading up a Kansas herd?" While our farmers are in this receptive frame of mind, while they are easily changed from milk to beef and from beef back to milk, it is certainly appropriate to consider the class of stock demanded from breeders by the dairy interests of Kansas.

First of all, let us consider what kind of cow-machines we have and how they compare with the best. During the summer of 1898 the experiment station of the Kansas State Agricultural College undertook an investigation of the patrons' of one of the leading creameries of the State, with a view to collecting some information along this line. This creamery has been running for several years and has been very successful in its operations, and doubtless the results obtained here are above the average of the State. Out of 79 patrons who reported upon the subject, there were 58, or 73 per cent who preferred general-purpose animals; 13, or 16 per cent who preferred beef animals, and 8, or 10 per cent, who preferred the dairy type. The average annual capacity per cow of the herds of 82 patrons investigated was 3,441 pounds of milk, which yielded 123 pounds of butter, making a cash income from milk alone of \$19.79, and for milk, calf and skim-milk, of \$32.86. These figures represent averages only and are considerably below the best and considerably above the poorest. From this we may judge that the average Kansas cow machine will not manufacture more than 120 pounds of butter in a year. This will scarcely pay for her keep, and no wonder the average farmer wants a high-priced calf to make her profitable. Our best Kansas cows are yielding over 300 pounds of butter per cow annually, and in other States, where the cow machine has been the object of prolonged and deep study, we find whole herds that average over 400 pounds of butter per year and individual cows yielding as high as 500 and 600 pounds. This gives us an idea of what we might expect from good dairy cows and shows very plainly that there is great opportunity for improvement in Kansas.

The dairy interest of Kansas is demanding from the breeders of to-day a dairy cow that has the capacity to transform our cheap raw feeds into milk, and do it with such a degree of efficiency that there will no longer be any doubt about the unprofitableness of trying to squeeze milk out of a beef animal. Some cows simply do not have the capacity to convert feed into milk, no matter about the quality of the feed nor how much they consume. Take for example a primitive locomotive, and no matter how much fuel or oil is used, it would be simply incapable of pulling our modern train of cars. Just so with the primitive or unimproved cow. She is not built to meet modern requirements.

Of course, it would be impractical as well as unwise for the milk and butter producers of Kansas to sell off their common and grade cows and buy "pure-bloods." But one thing is certain, they should always be grading up their herds with pure-blood sires. A good grade cow may yield as much milk and butter as a pure-blood, but a grade of any kind has not the power to transmit its qualities to its offspring as has the pure-blood, for the reason that the latter has received the qualities for which the breed is noted through a long series of years of careful breeding and selection and these qualities have become fixed or permanent.

Out of the 82 patrons mentioned, there were only 19, or 23 per cent, that were

using pure-blood sires, and 2 of these had Herefords and one an Aberdeen-Angus, animals that, as a breed, are unfit for profitable production of milk. This leaves 77 per cent that bred to grades or common bulls of no particular breed. Some of these bred to any kind of bull they could find to get fresh cows. One man bred to a Red Polled because he was working for red color. Another man did not know what kind of a bull he had last year, but said he had a fine one this year. When asked the breed, he replied: "Don't know; guess he is a Red Polled." Right here lies the secret to many of the low yields of our Kansas cows. Many of our farmers little realize how extravagant they are in using a common or ordinary bull. Their short-sighted policy leads them to believe that because a good animal costs \$100, it would be money thrown away to invest, when in reality, it would be money in their pockets. A dairyman can much better afford to pay \$100 for a good bull than to accept a poor one as a gift. Mr. Borman, of Navarre, Kans., who last year realized an income of \$81 per cow from a herd of 12 cows, says: "An old red cow dropped two heifer calves in succession, one a half-breed Holstein, the other from a Shorthorn bull. The Holstein heifer with third calf produced an average of 52 pounds of 3.8 per cent milk per day for seven days, and for the same time the red heifer with second calf gave 27 pounds of 4 per cent milk per day. The cows were half siskers, one producing 2.3 pounds of milk per day, the other 1.2 pounds; the first milking eleven months of the year, the second dry at five months." "This instance," says Mr. Borman, "only serves to demonstrate the value of a sire bred for milk and butter when the farmer is rearing a dairy herd."

As Kansas dairying continues to advance, which it will surely do, there will undoubtedly be a demand for pure-blood males of the leading types of the dairy breeds, and it is the privilege as well as the duty of the improved stock breeders of Kansas to be ready to meet this demand. To-day when a man wants a good dairy bull he often has to look for him outside of the State. Missionary work can also be done in the way of bringing prominently before our farmers the importance of blooded sires, so that they will not be satisfied until they obtain the best to be had.

The question very naturally arises in this connection: "What is the best breed?" Unfortunately, we have no definite or extensive experiments to throw light upon the point. It is the wish of the Kansas State Agricultural College, backed by the best judgment of prominent dairymen in the State, to experiment along this line by purchasing 250 head of common cows and crossing 50 of these with a Jersey, 50 with a Guernsey, 50 with a Holstein, 50 with a Shorthorn and 50 with an Ayrshire. The steer calves would be raised for beef, the heifer calves for milk, and an accurate account kept of the feed consumed and milk and beef produced. We would then have in the course of a few years some definite information as to the best breed for the Kansas farmer to use in grading up his herd, and this information would be based on a sufficient number of cows to overcome differences due to individuality. This would not only help the Kansas farmer to solve the question of breeds, but it would furnish employment to students who are obliged to work their way through college; it would give excellent practice to our dairy students in manufacturing the milk into butter and cheese, and above all would give both students and farmers an opportunity to study the results of experiments along the line of feeding and care of the dairy cow with a view toward increased production. It is to be hoped that every member of the Improved Stock Breeders' Association will take a lively interest in the experiment and do all they can to influence the present legislature and get the State to invest in sufficient cattle and buildings to enable the college to carry out this plan.

But in the absence of experimental data as to crossing with different breeds, the dairy interests must not lag. Any of the dairy breeds can furnish sires that are vastly superior to those from grade or common cows, and our Kansas dairy farmer should become acquainted with this fact. The dairy interests demand that the breeder of the coming dairy cow shall use a sire that shall stamp his qualities in a way that they shall show at the milk scale and the Babcock test, and the improved stock breeders along dairy lines in Kansas need to agitate and educate until our dairy farmers shall feel that they are committing a crime against their own welfare to use anything but a pure-bred sire. Life is too short to attempt to grade up a herd of common cows with a common bull.

Time was when we could afford to harvest our grain with a scythe and time was when we could afford to keep an ordinary cow for her calf, but that time is past; we must now have the modern improved self-binder, and likewise we must have the modern improved, up-to-date cow machine.

"The mighty march of ideas makes our old-time thoughts uncouth, We must still press onward, upward to keep abreast of truth." D. H. O.

Western Kansas as a Dairy Country.

Paper read before the Kansas State Dairy Association, Topeka, November 17, 1898, by C. F. Pressey, manager Cawker City Creamery, Cawker City, Kans.

In considering this subject, we have no desire to underestimate the advantages which western Kansas offers as a dairy country, nor the least desire to exaggerate or paint its advantages in more glowing colors than the facts warrant. A portrayal of the exact conditions and that which can be verified by the light of truth, is what renders a paper of value to the public. Those who have had experience and are fully informed as to the existing conditions, admit that this portion of our State is eminently adapted for grazing and the growth of certain forage plants, and attended with much less uncertainty than Indian corn and wheat. One of the great mistakes, conceded by many of the farmers in the western half of the State, is the attempt to cultivate the soil, which the God of Nature seems to have intended to be used in a different way.

What are a few of the leading and necessary conditions for a dairy country, and do these conditions exist in that portion of the State indicated by the title of this paper? The matter of the feed is paramount in importance. No country can reach permanent success in the dairy line unless ample feed can be produced. To obtain the best results, it is needful to furnish the cows not only with a sufficient amount, but the right kind of feed. Western Kansas is well adapted for the growth of milk-producing feeds, such as alfalfa, Kaffir corn and sorghum, and it is a matter of vital importance that there is probably no year so dry but that these feeds can be harvested in abundance. With these feeds the cow can be served with a balanced ration, so essential in reaching the best results. The raising of alfalfa in western Kansas is no longer an experiment, but a veritable fact and a great success. This year, in that portion of our State where Indian corn was a failure, many of the farmers have harvested four crops of alfalfa. When alfalfa is well rooted there is no doubt but that one crop at least can be harvested each year, and usually three or four. It may seem surprising, but it is a fact, that in excavating for water recently we found alfalfa roots extending downward eighteen to twenty feet. Its marvelous growth and great feeding value is destined, we believe, to revolutionize this whole Western country. Let the seeding and growth of alfalfa continue a few years longer, coupled with the growth of other forage plants adapted to this soil, climate and altitude, and let these feeds be turned in the direction of the dairy cow, and western Kansas will blossom as the rose and be redeemed from the grip of the mortgage-holder. We regret the timely rainfall, so much needed for the growth and maturing of Indian corn and wheat, are not always to be depended upon, but all over this part of the State good water can be secured from the earth beneath, and that at no great depth, so that water can be furnished by the use of the windmill. If western Kansas has a superabundance of any one thing it is wind. (I mean the kind needed to drive the mill.) So there is no time or season of the year but that the cow and other stock can be provided with an abundant supply of good fresh water, one of the indispensable conditions of a dairy country.

Another very important factor in this matter is the cost of production. If the rich and valuable land with a high

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rate of taxation in other States can be used profitably in dairying, then the cheap land in western Kansas ought to be used to still greater advantage.

Dairy farming is established upon a sure foundation, with no prospect of an overproduction of a first-class article of either butter or cheese. The farmer in western Kansas who has knowledge and energy sufficient to get a good herd of cows and keep them as they should be kept, utilizing the feeds produced here to the best advantage, will be successful and sure of a reliable and constant income.

In conclusion, I desire to broaden this subject and include the entire commonwealth, and draw a parallel which will, in some measure, portray the marvelous growth and development of the dairy interest within the limits of this State during the last decade. I have stood on the ocean shore in the night time and have seen the full orb moon rise out of the water, and as it rose higher and higher, it cast across the sea a glittering, glimmering, magnificent pathway of light—only very small in the beginning; but it broadened and lengthened until it seemed to cover the sea and reached my feet. Thus it has been somewhat with the dairy interest and creamery business of this State. Only very small in the beginning, but it has broadened, increased and developed until it well-nigh encircles the entire commonwealth, and has been the means of bringing joy and gladness to many hearts and comforts to many firesides.

The Test.

By A. Jensen, Manhattan, Kans., in his creamery patrons' circular for December, 1898.

"For the month of November the test will average about the same as through October—some might be higher and others lower. I invite my patrons to see the testing done the 1st and 15th of every month, in the afternoons. I want to know my patrons better and want to work together with you. I fully realize that my living depends on your patronage, and I cannot afford to have any difficulties over anything. If ever there is anything that don't show right to you, come to me first and let me see where the mistake originated. Your cows should have shelter in winter, and the recent storms have affected the test greatly. One day last week I churned 40 pounds more butter out of a single day's run than usual, and the very next day I fell short 25 pounds. This only shows the effect rough weather will have on cows."

It has long been a matter fully conceded that cancer was a disease incurable; but recent discoveries have now proven that if cancer is properly and promptly treated in its early stages, that its course can be so changed and altered that nature will come to the aid of the physician and a complete and speedy recovery will be the result. A free book is prepared by Dr. Rinehart, Lock Box 221, Indianapolis, Ind., on this subject, and the book will be sent to anyone writing to him for it.

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The Kansas Improved Stock Breeders.

(Continued from page 5.)

breeding, feeding and management of live stock.

This being true, it is eminently proper that these subjects should be given a prominent place in the papers and discussions of this association at its annual gatherings, but there are some other matters I think of importance to come before you at this meeting to which I wish to call your careful attention.

In the words of Secretary Coburn, "Kansas, if anything, is an agricultural State, and whatever promotes her farming and live stock interests redounds directly to the prosperity of every other interest."

It is my belief that no thinking man will deny that a properly conducted State fair is conducive to the agricultural and live stock interests of the State in which it is held, and I think it is pretty nearly the unanimous verdict of thinking and experienced men that a State fair cannot be made a success unless backed by the State. This question has heretofore received considerable attention at your hands, but has not seemed to get beyond the period of discussion. It is my hope that something may be accomplished in that line at this meeting. We have a standing committee which will make a report which, as I understand, will be in the nature of a bill to be brought before the legislature for consideration. Let this receive your careful attention and be brought as near to perfection as possible. Then take the proper steps to bring it before the legislature. In the meantime let every member of this association constitute himself a committee to see that his own representative in each branch of the legislature fully understands that we are in earnest in this matter and desire the passage of this bill, and I believe it can be accomplished. I regard this as one of the vital questions to come before you at this session. The sentiment over the State, especially with all concerned in such an exhibition, is quite favorable for the project at this time, therefore I trust that this matter will have a thorough consideration. In this connection the report of your standing committee on needed legislation, Messrs. J. W. Robinson, T. W. Harrison, and T. A. Hubbard, will undoubtedly have a splendid report to submit for your consideration, which may be of value to the State fair committee as well.

Your executive committee inform me that they have engaged a stenographer and will undertake to publish our proceedings in full, in view of the fact that the Kansas Farmer proposes to set the matter without cost to the association. This is by all odds the most important item of expense in getting out such a report, but even then it is doubtful whether our membership fees will be sufficient to defray the expenses of such an edition, which will probably cost us in the neighborhood of \$20 a thousand copies of a 72-page report, but it has been suggested by your executive committee that some of our most prominent breeders could take a few pages for their personal advertising. This would enable us to get out quite a report, and each advertiser could have from one to two hundred copies of the report for distribution among his customers. I would also suggest that as many members as possible who do not advertise would likely order a number of copies to distribute among their friends and patrons, and by this method we could easily circulate 10,000 copies of our report. By this system every member would receive a copy of the report and his name in the Breeders' Directory for the membership fee of \$1. I trust this meeting will provide for a large issue of the proceedings.

The steady and healthy growth of this association from its beginning, eight years ago, is sufficient guaranty that its usefulness is appreciated by the stock breeders of the State, but the membership of our association is yet altogether too small, and we think that every mem-

ber should make a special effort to add at least five new members and forward the names to the secretary.

This would be a very easy matter, provided our proceedings were published, giving the papers, addresses and discussions in full, together with the list of members and class of stock bred by each, but in order to do this it will be necessary to at least double our membership.

Our constitution and by-laws should be revised to meet the present condition of the affairs of the association. There is nothing that needs changing particularly in either the constitution or by-laws, because they are, perhaps, the briefest of any similar instruments in the country. I think, however, that a committee should be appointed to see whether additions are necessary, as the constitution can only be changed at the annual meeting. The committee which drafted this constitution consisted of Hon. S. S. Benedict, Maj. Wm. Sims, and H. A. Heath. It was adopted in 1891 and has never been changed.

If it be true that trials are essential to the highest development of states and nations, it is no less true of individuals, and how often do we see individual character ennobled and purified by the fires of affliction, as in the case of the man quoted in the beginning of these remarks; but, alas, sometimes human strength falls. As a sequence this association is called to mourn the untimely death of the man who occupied this chair one year ago. There are few men who do not at some time feel weary of the struggle and tempted to give up. There are dark hours in every life—periods of apparent defeat, but it is better to come up from the valley of trial by the path of decision and turn a brave face and a stout heart to the duties of life, remembering that,

"He who would climb to heights sublime
Or breathe the purer air of life
Must not expect to rest in ease
But brace himself for toil and strife."

In no calling in life is the broad, deep, thorough education that is acquired only by a combination of books, experience, and common sense more essential than in ours. The dissemination of this kind of education is the province of this association. Let us see to it, members of this association, that our work is well done.

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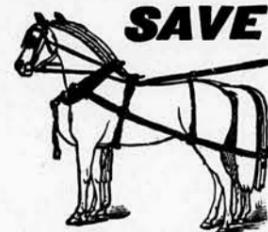
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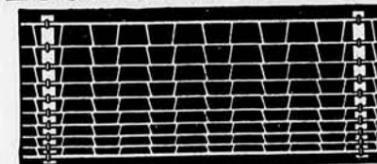
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Worth \$1.00, for 14 cents, \$1.00
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MARKET REPORTS.

Kansas City Live Stock. Kansas City, Jan. 16.—Cattle—Receipts since Saturday, 5,203; calves, 23; shipped Saturday, 899 cattle; no calves. The market was steady to strong and active. The following are representative sales:

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

Hogs—Receipts since Saturday, 9,788; shipped Saturday, none. The market was strong to a shade higher. The following are representative sales:

Table with columns: No., Price, No., Price. Rows include various hogs and sheep.

Sheep—Receipts since Saturday, 3,396; shipped Saturday, 104. The market was strong to 10c higher. The following are representative sales:

Table with columns: No., Price, No., Price. Rows include various sheep.

St. Louis Live Stock. St. Louis, Jan. 16.—Cattle—Receipts, 3,500; market easy for natives and steady for Texans; native shipping steers, \$4.15@5.70; light and dressed beef and butcher steers, \$3.00@5.20; stockers and feeders, \$2.70@4.35; cows and heifers, \$2.00@4.20; Texas and Indian steers, \$2.75@4.60; cows and heifers, \$2.20@3.50.

Hogs—Receipts, 7,500; market steady; pigs and lights, \$3.45@3.60; packers, \$3.40@3.65; butchers, \$3.60@3.75.

Sheep—Receipts, 600; market steady; native muttons, \$3.75@4.00; lambs, \$4.50@5.25.

Chicago Live Stock. Chicago, Jan. 16.—Cattle—Receipts, 13,500; market steady to 10c higher; beefs, \$4.00@5.90; cows and heifers, \$2.00@4.85; Texas steers, \$3.40@4.75; stockers and feeders, \$2.90@4.50.

Hogs—Receipts, 40,000; market rather slow, strong to 5c higher; light, \$3.45@3.70; mixed, \$3.50@3.75; heavy, \$3.50@3.80; rough, \$3.50@3.55; yorkers, \$3.60@3.65.

Sheep—Receipts, 20,000; market steady to 10c lower; natives, \$2.75@4.15; westerns, \$2.90@4.10; lambs, \$3.75@5.10.

Chicago Grain and Provisions.

Table with columns: Jan. 16, Opened, High'st, Low'st, Closing. Rows include Wh't-May, Corn, Oats, Pork, Lard, Ribs.

Kansas City Grain. Kansas City, Jan. 16.—Wheat—Receipts here to-day were 238 cars; a week ago, 230 cars; a year ago, 108 cars. Sales by sample on track: Hard, No. 2, 65@66 1/4; No. 3 hard, 62 1/4@63 1/4; No. 4 hard, 59 1/4@62 1/4; Soft, No. 2 red, 72c; No. 3 red, 68c; No. 4 red, nominally 63@66c; rejected red, nominally 55@62c. Spring, No. 2, 65c; No. 3 spring, 58@63c.

Corn—Receipts here to-day were 48 cars; a week ago, 60 cars; a year ago, 217 cars. Sales by sample on track: Mixed, No. 2, 32 1/4@33c; No. 3 mixed, 32 1/4@32 3/4; No. 4 mixed, nominally 32c; no grade, nominally 31 1/4c. White, No. 2, 31 1/4c; No. 3 white, 33 1/4@34 1/4; No. 4 white, nominally 33c.

Oats—Receipts here to-day were 7 cars; a week ago, 6 cars; a year ago, 21 cars. Sales by sample on track: Mixed, No. 2, nominally 28@29 1/4; No. 3 mixed, nominally 27 1/4c. White, No. 2, 28@29 1/4; No. 3 white, 28 1/4c; No. 4 white, nominally 27 1/4c.

Rye—No. 2, nominally 53c; No. 3, 52c; No. 4, nominally 50c.

Hay—Receipts here to-day were 84 cars; a week ago, 61 cars; a year ago, 28 cars. Quotations are: Choice prairie, \$7.00@7.25; No. 1, \$6.25@6.75. Timothy, choice, \$7.25@7.50. Clover, \$6.50@7.00. Alfalfa, \$7.00@8.00.

Kansas City Produce. Kansas City, Jan. 16.—Eggs—Strictly fresh, 15c per doz.

Butter—Extra fancy separator, 18c; firsts, 17c; seconds, 15c; dairy, fancy, 15c; country roll, 11@12 1/4; store packed, 10c; packing stock, 9@10c.

Poultry—Hens, 5 1/4; springs, 7 1/4; old roosters, 15c each; young roosters, 20c; ducks, 5 1/4; geese, 4@5; turkeys, hens, 7 1/4; young toms, 7 1/4; old toms, 6 1/4; pigeons, 50c per doz. Vegetables—Navy beans, \$1.33 per bu. Lima beans, 4 1/2 per lb. Onions, red globe, 50@56c per bu.; white globe, \$1.00 per bu. Cabbage, home grown, 40@50c per doz. Celery, 45c per doz. Pumpkins, \$1.00 per doz. Squash, 75c per doz. Turnips, home grown, 15@25c per bu. Potatoes—Home grown, 30c per bu.

THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POSTING. BY AN ACT of the Legislature, approved February 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker-up, to the KANSAS FARMER, together with the sum of 50 cents for each animal contained in said notice. And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper, free of cost, to every County Clerk in the State, to be kept on file in his office for the inspection of persons interested in strays. A penalty of from \$5 to \$50 is affixed to any failure of a Justice of the Peace, County Clerk, or proprietors of FARMER for a violation of this law.

Broken animals can be taken up at any time in the year. Unbroken animals can only be taken up between the first day of November and the first day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray. If an animal liable to be taken up, shall come upon the premises of any person, and he falls for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up a stray, must immediately advertise the same by posting three written notices in as many places in the township, giving a correct description of each stray, and he must at the same time deliver a copy of said notice to the County Clerk of his county, who shall post the same on a bill-board in his office thirty days.

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up of the time when he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered; and he shall give a full description of the same and its cash value. He shall also give a bond to the State of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up (ten days after posting) make out and return to the County Clerk, a certified copy of the description and value of such stray. If such stray shall be valued at more than \$10, it shall be advertised in the KANSAS FARMER in three successive numbers.

The owner of any stray may, within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker-up of the time when, and the Justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of all charges and costs.

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker-up. At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and answer his process, summons to be served by the taker-up; said appraisers, or two of them, shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and report the same on their appraisal.

In all cases where the title vests in the taker-up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of the stray, one-half of the remainder of the value of such stray. Any person who shall sell or dispose of a stray, or take the same out of the State before the title shall have vested in him, shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of \$20.

FOR WEEK ENDING JANUARY 5, 1899.

Chase County—M. C. Newton, Clerk. THREE COWS—Taken up by Fred Hoffman, in Cottonwood tp. (P. O. Cedar Point), December 13, 1898, three cows, medium size, red, 6 to 8 years old, right ear cropped, some brand on right hip, looks like a letter V; valued at \$60.

Pottawatomie County—A. P. Scritchfield, Clerk. STEER—Taken up by M. Gunter, in Spring Creek tp. (P. O. Springside), December 5, 1898, one yellowish red steer, marks on both ears, brand on right hip, indistinguishable, dehorned; valued at \$25.

HEIFER—Taken up by Ph. Immenschuh, (P. O. Louisville), September 14, 1898, one dark red heifer; valued at \$16.

McPherson County—C. M. Gray, Clerk. HEIFER—Taken up by Gus Severson, in Empire tp. (P. O. Galva), November 29, 1898, one red two-year-old heifer, hole in left ear; valued at \$20.

Atchison County—S. S. King, Clerk. MARE—Taken up by William Strickler, Lancaster tp. (P. O. Lancaster), light bay mare, 7 years old, 15 hands high, left ear slit, star in forehead, wire cut on front legs.

Butler County—S. G. Pottle, Clerk. STEER—Taken up by John T. Henley, in Chelsea tp., one two-year-old red steer, no brands; small white spots in forehead, white spots on both right and left flank, white under the forelegs; also in bush of tail; no horns; valued at \$22.

Greenwood County—Perry Clemans, Clerk. COW—Taken up by T. J. Bailey, in Eureka tp. (P. O. Eureka), one roan cow, one-quarter inch rope four feet long around neck, dehorned, underbit in left ear, brand on right hip but too dim to determine.

STEER—Taken up by Robt. Wiggins, in Bachelor tp. (P. O. Eureka), November 1, 1898, one red steer, branded O 1 on right hip and Z on left shoulder; square crop out of under part of left ear; square slit in under part of right ear.

FOR WEEK ENDING JANUARY 12, 1899.

Cherokee County—S. W. Swinney, Clerk. PONY—Taken up by J. W. Hamilton, in Pleasant View tp., December 29, 1898, one black mare pony, 5 years old, weight 800 pounds, scar on left fore foot; valued at \$20.

Greenwood County—Perry Clemans, Clerk. TWO COWS—Taken up by C. C. Huntington, in Eureka tp. (P. O. Eureka), two red cows, 5 years old, no marks or brands; valued at \$25 each.

Elk County—J. A. Benson, Clerk. COW—Taken up by Charles Martin, in Liberty tp. (P. O. Fall River, Greenwood county), on December 15, 1898, one black cow, weight about 700 pounds, crop and underbit out of each ear, branded D. G. on left hip; valued at \$20.

FOR WEEK ENDING JANUARY 19, 1899.

Crawford County—F. Cunningham, Clerk. COW—Taken up by J. G. Walters, in McCune, Osage

tp., November 15, 1898, one pale red cow, 2 years old, white face, slit in under side left ear, crumpled horns, poor in flesh; valued at \$15.

Nemaha County—A. G. Sanborn, Clerk. STEER—Taken up by Clarence Howard, in Centralia, Home tp., November 10, 1898, one red yearling steer, medium size, little white on tail and belly, dehorned; valued at \$20.

Wilson County—C. W. Isham, Clerk. STEER—Taken up by J. L. Lewis, in Fall River tp. (P. O. Fredonia), December 17, 1898, one red and white spotted steer, 3 years old, dehorned, no marks or brands; valued at \$25.

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Lot of 75 cent, strictly all wool, nice dark Plaids, 44 inches wide, 35c yard.

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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 bred Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

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

The Poultry Yard

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

With the Poultry.

As spring approaches, arrangements for the spring breeding should be completed, in order that the best of the early-hatched pullets may be selected to be used for the next winter's layers. Clean up the quarters, coal oil the roosts, whitewash the inside of the nest boxes and supply new, clean straw in them. Have everything arranged so that when the hens show a disposition to sit they can be made as comfortable as possible. Like much other farm work, it is always best to make ready in good season.

Many fail to make the raising of early broilers profitable because sufficient care is not taken to push the growth of the little chicks from the start. With good treatment broilers ought to be ready for market by the time they are ten or twelve weeks old, and should average two pounds in weight at this age. There are three essentials in raising early broilers for market with profit. They are early hatching, early and rapid growth and development, and, lastly, good marketing. A little extra care in feeding carefully and regularly will help materially in getting them started right, and once well started it is an easy matter to maintain a good growth.

One advantage in raising turkeys over almost any other variety of marketable fowls, is in their ability to pick up the greater part of their food. As soon as they have made a sufficient growth to be given a free range they will look out for themselves. Almost all of the feeding necessary is that required to keep them in the habit of coming home, so that during growth at least about all that they eat is in reality so much saved. One tom with from three to five hens will furnish as many eggs as will usually be wanted, and as a pound of live turkey can be grown fully as cheaply as a pound of pork, a good profit is readily received. Turkey eggs are usually fertile, more so than with any other class of fowls, so that with care in raising them a goodly number can be raised from a few breeding fowls.

The principal value of the greater proportion of egg foods placed upon the market is that they supply the elements needed, or rather that which enters into the composition of an egg, that is too often overlooked by the average poultry keeper. Ground bone, ground meat, salt and charcoal are usually a good part of the ingredients. The first supplies the phosphates, the second the albumen, and the last acts as a corrective of the system. So long as the fowls have a good range and are able to pick up a good variety of food, or so long as proper care is taken to supply a good variety, the purchasing of egg foods is unnecessary. But during the winter is when the fowls are closely confined and a good variety of food cannot or is not readily supplied. It will often prove good economy, if necessary to purchase foods, to purchase either prepared egg foods or the materials and make up before feeding, as eggs cannot be laid unless the hens are supplied with the materials to make them.

N. J. SHEPHERD.

Saline County Poultry Show.

Editor Kansas Farmer:—The following are the awards made at the show held by the Saline County Poultry, Pigeon and Pet Stock Association, December 12-17, 1898; W. B. Hathaway, Judge.

Single-crested Brown Leghorns.—W. W. Melott, first on pen, 185; first cockerel, 93; third pullet, 93½. E. Goodall, first pullet, 94¾; second pullet, 94½. A. J. Kerns, second pen, 184; second cockerel, 92½. W. W. Perry, third pen, 182; first cock, 91; second hen, 92½. R. A. Mayo, first hen, 93½. O. C. Tobey, third cockerel, 91¾.

Single-crested White Leghorns.—E. A. Benjamin, first pen, 186; pullet, 94; second cockerel, 91¾; second pullet, 94; third pullet, 93½. A. J. Kerns, second pen, 178; first cock, 87; first hen, 93½; second hen, 92½; third hen, 91. Walter Lindblom, third pen; third cockerel, 91. W. C. Sherrill, first cockerel, 92½.

Single-crested Buff Leghorns.—Herman Tilgner, first pen, 182; first cockerel, 91¾; second cockerel, 90; third cockerel,

89. F. N. Gaines, second pen, 181; third pen, 180; first pullet, 92¾; third pullet, 92. W. C. Sherrill, second pullet, 92¾.

Blue Andalusians.—J. D. Martin, first pen, 182; first cockerel, 92; first pullet, 93¾; second pullet, 91. E. A. Benjamin, second pen, 175; third pullet, 90¾; second cockerel, 86; third cockerel, 85½.

Silver-spangled Hamburgs.—Charles Nelson, first pen, 184; first cockerel, 91¾; first pullet, 93¾; second pullet, 91¾; third pullet, 91½.

Golden Wyandottes.—Mrs. J. H. Moorman, first pen; first cockerel; first pullet. Grant Gaines, second pen; second cockerel; second pullet. G. W. Berkley, third pen; third cockerel; third pullet.

White Wyandottes.—W. C. Ingram, first cockerel, 89; first pullet, 94¾; second pullet, 92. L. D. Arnold, second cockerel, 88; third pullet, 90½. C. M. Hagler, third cockerel, 82; third pullet, 90½.

Silver-laced Wyandottes.—E. C. Mull, first cockerel, 91¾; first pullet, 91¾; second pullet, 89¾. Kincaid & Harvey, second cockerel, 90; third pullet, 89.

Silver Gray Dorkings.—W. C. Sherrill, all firsts, seconds, and thirds.

Black Javas.—G. W. Berkley, first cockerel, 91¾; first pullet, 91¾.

Barred Plymouth Rocks.—J. W. Blair, first pen, 181; first cockerel, 91½; first pullet, 91¾; second pullet, 91; third pullet, 89. Mrs. C. E. Anderson, second pen, 178; third pen, 177; second cockerel, 90½; third cockerel, 89¾. W. H. Crisran, first cock, 89¾.

White Plymouth Rocks.—R. A. Mayo, first pen, 186; second cockerel, 92¾; first hen, 94½; second pullet, 90¾; third pullet, 93½. L. Jermark, first cockerel, 92½; second pullet, 93¾; third pen, 184½. W. W. Melott, second pen, 184¾; first pullet, 94½; third cockerel, 91¾.

Buff Plymouth Rocks.—W. C. Sherrill, first pen; first cockerel; first pullet; second cockerel; second pullet. I. S. Bower, third pen; third cockerel.

Light Brahmas.—W. C. Sherrill, first pen; first cockerel; first pullet; second pullet; third pullet. J. G. Farquharson, first cock; first hen.

Buff Cochins.—W. C. Sherrill, first pen; second pen; first cockerel; second cockerel, third cockerel; first pullet; second pullet; third pullet; first hen. Walter Lindblom, third pen.

Pit Games.—E. Goodall, first pen; first cock; first hen. E. Bitticker, first cockerel; first pullet; first pair.

Buff Cochins.—Clara Sherrill, first pen, 185; first cockerel, 93; second cockerel, 91¾; third cockerel, 91¾; first pullet, 94½; second pullet, 94; third pullet, 92.

Golden Seabright Bantams.—L. A. Brown, first cockerel, 90½; first pullet, 91; first pair, 181½. W. W. Melott, all seconds.

Miscellaneous Bantams.—Paul Schwartz, first pair. Walter Lindblom, second pair.

White Pekin Ducks.—Sam Sivilbill, first drake, 95½; second pair, 184½. Mrs. C. E. Anderson, first duck, 94½; first pair, 186. Fred Schultz, second drake, 94½; third drake, 92½. G. W. Berkley, second duck, 94½. G. R. Divilbiss, third duck, 93. Jno. Jeffries, third pair, 184½.

Mammoth Bronze Turkeys.—Robert White, first cock, 96½; second cock, 93½; first hen, 97; second hen, 96; first pullet, 94. C. F. Whitney, first cockerel. Berkley & Ayers, best display pigeons and pet stock. J. W. Blair, second, display pigeons and pet stock.

The association elected the following officers for 1899: J. W. Hayward, president; J. W. Blair, vice president; W. C. Sherrill, secretary; W. W. Perry, treasurer; A. J. Kerns, superintendent; G. W. Berkley, assistant superintendent.

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A WAR INCIDENT.

How a Besieged Army Obtained Drinking Water—After a Rain Soldiers Went Down on their Hands and Knees and Drank Water in the Horses Hoof Tracks.

From the Press, Milroy, Ind.

One of the first to offer their services for the country in the Civil War, was A. R. Sefton, of Milroy, Rush County, Ind. He made a good record, and when the great difficulty was settled, was honorably discharged.

To-day Mr. Sefton is 56 years old, a prominent farmer, the head of a large family, and notwithstanding the ill effects of army life, is enjoying excellent health.

There was a period in Mr. Sefton's life during the war which makes an interesting story. He was a member of the 38th Ills. Infantry which was often to the front in close business. The life of every soldier is a hard one, and Mr. Sefton's case was no exception. "We were in Tennessee, penned in on all sides. Our 'rations were very scarce," said he, "and we had begun to go on 'quarter allowance.'"

It was in the middle of August, the wells of the community were nearly all dry, and we were some distance from any stream, consequently we had great difficulty in getting water for cooking and drinking purposes. One night there came a hard rain, and the next day we were started on the march. The sun shone hot, and our plodding along was very tiresome and oppressive. Every one of us had only a little water to drink, and as the rain was not enough to replenish the wells or streams, our canteens went empty. We were hurried on, and the only way to quench our thirst was to go down on our hands and knees and drink from the hoof tracks made by the horses. Of course the water was muddy and very filthy, but it was a case of this or die from thirst.

"Some of us were taken sick from the effects of this, and I was one of them. I was laid up for several weeks in a field hospital from fever. Many times afterward I became afflicted with different ailments. My kidneys

and stomach gave me considerable trouble. I managed to pull through to the end of the war, regardless of much suffering and illness.

"From that time I was always afflicted more or less. My doctor said I had kidney and stomach trouble, and my heart was also affected. As the years went by it seemed that I was growing gradually worse, and my physician could do nothing to restore my lost health. Every year during the fall I would have a severe attack, lasting two or three months.

"About four years ago I became much worse. Our family doctor seemed puzzled over my case, and it began to look as if there was no hope for my recovery, and that the inevitable end was near.

"Last November I was advised to try Dr. Williams' Pink Pills for Pale People. The physician said that although they were an excellent medicine, they would do no good in a case such as mine. But I tried them, and now am glad I did for I began getting better almost at once. Eight boxes, taken according to directions, cured me. I used the last of the pills about a year ago, and have not been troubled with my ailments since."

The power of Dr. Williams' Pink Pills for Pale People in the vast number of diseases due to impure or poisoned blood, has been demonstrated in thousands of instances as remarkable as the one related above.

These pills build up the blood by supplying its life-giving elements, which nourish the various organs, stimulating them to activity in the performance of their functions and thus drive disease from the system. No one who is suffering can rightfully neglect this way to restore health. Physicians and druggists consider Dr. Williams' Pink Pills for Pale People a potent remedy, and large quantities of the pills are used.

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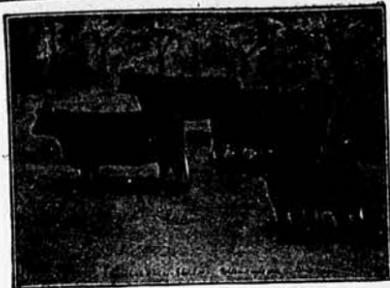
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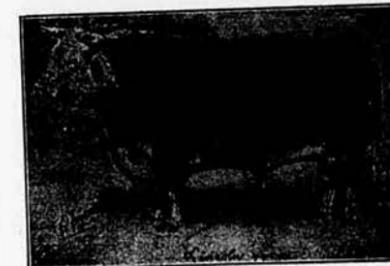
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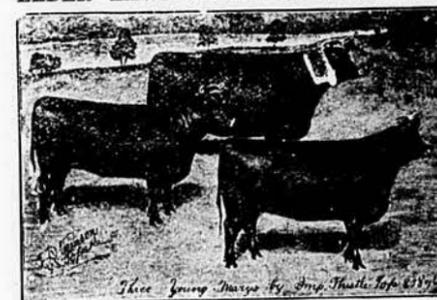
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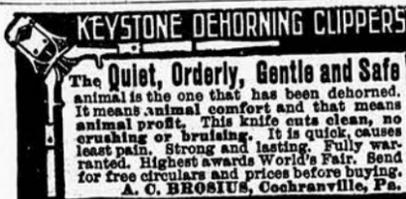


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The offering consists of forty proven sows of the most desirable families, with Chief Tecumseh 2d 9115 and Chief I Know 1822 as the predominating blood in the sows or in the get of these noted sires. This stock is from the well-known breeders, J. E. Hoagland, Lawn Ridge herd, Holton, Kans., and M. C. Vansell, Ashland Stock Farm Herd, Muscatat, Kans. Whosoever will may come. Breeders will be entertained free at the Teer Hotel. For catalogues address J. E. HOAGLAND, Holton, Kans. Col. S. A. Sawyer, Auctioneer.

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