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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. WAIT & EAST, Altoona, Wilson Co., Kas.

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A choice lot of gilts sired by Ideal U. S. and bred to Tecumseh Chief. Also some good Tecumseh Chief gilts bred to Look Over Me (he by old Look Me Over) and some good fall pigs, both sexes. Write and get my prices or come and see. WM. MAGUIRE, Haven, Kas.

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.

THE SEDGWICK NURSERY CO., Sedgwick, Harvey Co., Kas., —Breeder of—

Short-horn Cattle and Poland-China Swine Of the Best Strains.

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Cheney's Chief I Know 19513 (8) at head. All popular strains represented in matrons. Write for prices, which are always reasonable. Buyers met at train and shown stock free.

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Our herd numbers forty head, with fine prospects for large increase this fall. Foundation stock from leading Iowa and Kansas herds. 2d Seven Oaks Col. Mills 45719 herd boar. We have also for sale fifty Silver-Laced Wyandottes. Address MANWABING BROS., Lawrence, Kas.



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Guy Darknes 15292 and Best Nims 19612, herd boars. Sept. '97 boars and gilts for sale. Guy Darknes gilts will be bred to Best Nims for fall farrow. Correspondence or inspection of herd solicited.

S. W. HILL, Hutchinson, Kas.

SUNNYSIDE HERD PEDIGREED POLAND-CHINAS.

Herd Boars are Grand Sons of J. H. SANDERS and SHORT STOP, the World's Fair Prize Winners. Bred to 20 large mature sows of Corwin Black U. S. and Black Bess 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.

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Fifty boars and gilts for this season's trade. My herd boars consist of Darknes Quality 14361, Princeton Chief 14543, Col. Hidesetter 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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Most Fashionable Strains.

MODEL BOY, WESTERN WILKES, } Now in Service. YOUNG STOCK FOR SALE.

SWINE.

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. C. J. HUGGINS, Proprietor, Wamego, Kas.

W. B. VAN HORN, LAWRENCE, KAS. Breeder of POLAND-CHINAS.

Twenty boars by Combination Model 20112, Look Me Up by Look Me Over, Tecumseh Short Stop and other choice boars. I breed for size and bone as well as finish. Satisfaction guaranteed. Fifty Plymouth cockerels for sale.

PLEASANT VALLEY HERD REGISTERED POLAND-CHINA SWINE

King Perfection 4th 18744 S. at head of herd, assisted by Tecumseh Wilkes 12894 S. and Lambing Ideal 14050 S. The sire of last named is Gov. C. by Black U. S. We have added several very finely bred sows to our herd. Write for particulars. Address either W. E. JOHNSON, Colony, Kas. E. A. BRICKER, Westphalia, Kas.

THE WILKES QUALITY HERD OF POLAND-CHINA SWINE.

Thos. Sydnor, Prop., Hutchinson, Kas. Herd boars, Darknes Quality and Guy Wilkes. For ready sale 45 very choice pigs out of Bessie Wilkes, Beauty Sedom, Chief I Know, Standard Wilkes, Ideal Black U. S. and Chief Tecumseh 2d sows.

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.

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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.

MEADOWBROOK HERD. J. R. KILLOUGH & SONS, Ottawa, Kansas.

We have for sale 25 pigs by J. R.'s Tecumseh of March and April farrow. Also a few females of choice quality not registered.

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 breed Shropshire sheep, M. B. turkeys and B. P. Rock chickens. Write. Allen Thomas, Blue Mound, Linn Co., Kas.

Mains' Herd Poland-Chinas

Headed by the two grand sires, One Price Chief 20114, he by Chief Tecumseh 2d 9115, out of Alpha Price, she by One Price 4207; Model Combination 19553, grandson of Klever's Model, on sire's side, and of Chief Tecumseh 2d on dam's side. I have pigs from other noted boars mated to a selected lot of sows as good as are known to the breed. A very fine lot of fall and spring pigs and quite an extra lot of bred sows of different ages. I will give very reasonable prices on all stock. Satisfaction guaranteed. James Mains, Oskaloosa, Jefferson Co., Kas.

ROSE CREEK POLAND-CHINAS ARE SECOND TO NONE.

FARM READ THIS SPECIAL OFFER:

Will offer early spring pigs weighing 200 pounds during September for \$17 each, delivered at any railroad station in Kansas or Nebraska.

H. WOODFORD, Mgr., Chester, Neb.

SWINE.

DIVERDALE 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.

Thoroughbred Duroc-Jersey Hogs

Registered stock. Send for 44-page catalogue, prices and history, containing much other useful information to young breeders. Will be sent on receipt of stamp and address. J. M. Stonebraker, Panola, Ill.

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

SHEEP.

SEVENTY-FIVE HEAD OF SHEEP FOR SALE. Pure-bred Cotswold and American Merinos. This includes our tops and show sheep; must be sold by October 1; rams and ewes, all five years old and under. Write at once to Hague & Son, Box 140, Walton Harvey Co., Kas.

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A splendid lot of spring lambs at low prices. Two extra fine Cotswold buck lambs. Write your wants, or better, come and select. Address, J. C. STONE, JR., Leavenworth, Kas.

CATTLE.

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

SILVER CREEK HERD SHORT-HORN CATTLE.

Scotch and Scotch-topped, with the richly-bred Champion's Best 114671 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.

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.

SUNRISE STOCK FARM.

C. A. STANNARD, Prop., Hope, Kas. Breeder of Hereford Cattle and Large English Berkshire Hogs

Bulls in service: Kodax of Rockland 40731, who has won more first premiums at leading State fairs in past six years than any other bull in Kansas; Java 64045. Thirty-five yearling heifers and seven bulls 3 to 7 years old for sale.

SPRING VALLEY HEREFORDS.



Lincoln 47095, by Beau Real, and Klondyke 42001, at the head of the herd.

Young stock of fine quality and extra breed ing for sale. Personal inspection invited.

ALBERT DILLON, Hope, Kansas.

Agricultural Matters.

BIGGER CROPS AND BETTER.

(London Chronicle, August 18.)

So far as live stock is concerned, the British farmer has been able to take full advantage of the process of natural selection in the production of new breeds of cattle and sheep. From the times of Bakewell onwards breeders have been turning their attention to this matter to such good purpose that British cattle and sheep are eagerly sought after by the agriculturists of other countries. Only a few weeks ago 700 guineas was paid for a Lincoln ram.

The result has been well summed up by the late Mr. Du Maurier in one of his Punch cartoons. A little spindle-shanked country gentleman with sloping shoulders is looking at a magnificent Short-horn bull, to which he addresses the remark: "By Jove, you are a fine fellow." To him replies the bull: "Yes, and so would you be if your parents had been chosen as carefully as mine have been." Oxen are now double the weight they were 200 years ago, whilst not only has the weight of sheep increased so far as mutton is concerned, but their fleeces have doubled and trebled in size, with a corresponding improvement in quality. The improvement in the breeds of English horses is rather outside the scope of the present article, but everybody knows what remarkable results have been achieved.

PROOF IN EXPERIMENTS.

But it has been left to two young men in Lancashire to grapple successfully with this mighty problem, and, after eighteen years of hard, unremitting and unremunerative work, to open up a vast field of new discoveries in the cultivation of cereals and grasses which bids fair to revolutionize agriculture. In 1880 John and Robert Garton, the sons of a Lancashire corn merchant, began their experiments in the production of cereals by means of cross-fertilization at Newton-le-Willows. Hitherto, with the two exceptions which have been referred to, improvements in grain had been brought about by carefully selecting the best ear in a field, and the best grain in that ear, and then keeping the produce of that variety for seed. And a change of seed from one district to another—~~as, for example, planting wheat grown in Midlothian in Kent or vice versa~~—has been found to be beneficial, as differences of environment sometimes lead to improvement in the produce. But the number of improved cereals to be obtained in this way is strictly limited, and they cannot be said to be new varieties at all.

On the other hand, the labors of Messrs. John and Robert Garton have been productive of new species of wheat, oats, barley and grasses, the number of which seems only to be limited by the time and trouble which may be taken by the experimenters. I spent a day during the present week at Newton-le-Willows (writes one of our representatives), and saw enough to convince me that a work was being carried out destined to have a remarkable influence over the future of agriculture. For, consider the possibilities. Compare a crab apple with a Blenheim Orange or a Strawberry Pippin, or a sloe with a Victoria or Orleans plum, or a wild strawberry with a Sir Joseph Paxton or a British Queen, and you will have some idea of what the Messrs. Garton's experiments may lead to.

ENORMOUSLY INCREASED YIELDS.

Already they have succeeded in producing varieties of wheat the average weight of the grain of which is 60 per cent. heavier than the average weight of grains of wheat in ordinary cultivation. With oats they have been even more successful. I saw a field of black oats growing at Newton which was just ready to be harvested, and the grains were just as much finer than the best Poland white oats as these latter are larger and finer than ordinary Tartarians. Already they have varieties of wheat and oats which promise to yield 30 and 40 per cent. more per acre than ordinary varieties, and so increase the national production by that amount.

In the ordinary course of things, and in any other country, the labors of men like the Gartons would at once have attracted the notice of the State Department of Agriculture. But it is not so in England. The English farmer, like his compatriot, the British trader in China, is left to his own devices by a paternal government. Had the Messrs. Garton been living in France, or the United States, or Canada, everything possible would have been done by the government, not only to assist them in their work, but to make the results of that work as widely known as possible. The

Newton-le-Willows experiments have been made known to three successive Ministers of Agriculture—to Mr. Henry Chaplin, to Mr. Herbert Gardner, and to Mr. Walter Long—but in each case the usual stereotyped official reply has been received, which may be summed up as "declined with thanks." More than this, Messrs. Garton have offered to place the whole of their samples and varieties of grain at the disposal of the Minister of Agriculture, and to devote their time to the continuation of their experiments under the direction of that body. But all to no purpose. As usual, it is left to private individuals to develop British agriculture, which now has to face the whole world in the market and to compete with many countries in which every farmer has behind him a competent, fully equipped department of agriculture, which pays the best scientists of the day to bring the whole of their skill and knowledge to bear on the problems of increasing and improving the produce of the soil of the countries they cultivate. In this connection it may be stated that the United States Department of Agriculture, hearing of the experiments which were being conducted at Newton, sent over a special envoy to examine and report upon them. And so struck was this gentleman with what he saw that Mr. John Garton tells me he at once made an offer for the whole of the stocks of the new cereals in hand, and also an offer which would secure the further results of the experiments for the benefit of the farmers of the United States. But Messrs. Garton declined the offer, as they were anxious to give the British farmer a chance to participate in the benefits of their discoveries.

NO CHANCE RESULTS.

In the work of the brothers Garton nothing has been left to chance. The whole world has been ransacked for specimens of different kinds of cereals, every one of which has been carefully grown and its peculiarities noted through several seasons. Nearly 350 varieties of wheat have been collected, including 36 English, 25 German, 26 French, 4 Russian, 15 Hungarian, 104 Greek, 65 Italian, 60 Indian, 12 Australian, 2 Japanese and 45 American. About 100 varieties of oats have been got together, including 20 British, 12 German, 10 French, 7 Russian, 6 Hungarian, 6 Greek, 8 Italian, 12 Indian, 6 Australian, 14 North American, and 2 Chinese. Seventy varieties of barley have been obtained, including 20 British, 4 German, 4 French, 4 Hungarian, 10 Greek, 12 Indian, 2 Australian, 3 Japanese and 4 United States. These specimens include every plant or weed analogous to the three varieties of cereals mentioned.

And here is an illustration of the value of some of these weeds. The ordinary British oat has a thick and tough hull. When oats have to be prepared for human food this hull has to be removed by a process which impairs both its flavor and its value as a breadstuff. But the common wild oat in China, which is hardy and prolific, growing in any soil and producing a large quantity of grains, has this peculiarity, it has no husk or hull.

By crossing several varieties of British oats with this Chinese variety, an oat has been produced which has no hull at all, and it can be used at once for preparation as human food. It has a beautiful bright yellow grain, which looks much like an elongated corn [grain] of the finest white wheat.

The value of this part of the Newton experiments has been testified to by food experts. Dr. Goodfellow, professor of physiology at the Bow and Bromley Institute, says:

"I have carefully investigated the system pursued by Messrs. Garton in the production of new types of cereal food plants, and I am convinced that it is based on the sound scientific principles which underlie heredity, whereby intentional variations obtained from the parent by cross-fertilization are subsequently fixed, resulting in a new permanent type. Comparatively useless varieties of cereals have been converted by Messrs. Garton's system into most valuable food plants, which are of such a character that they may be applied to purposes and used in forms for which the ordinary varieties are quite unsuited, thus providing novel and valuable food materials which could not be obtained from any other source."

Professor Jago, F. I. C., says:

"I have recently had an opportunity of thoroughly examining and studying from a food point of view the results of the prolonged experimental investigations by Messrs. Garton, of methods effecting improvements in cereals. These experiments have been extending over a period of eighteen years, and throughout have been conducted on a rigidly scientific basis. By these means they have succeeded in producing such variations in wheat and other cereals as practically

to create new food plants. These new types of food plants, which give every promise of being absolutely permanent, are characterized by the possession of valuable properties not present in the parent plants. Not only are the results already obtained of immense value from a food point of view, but the system perfected by Messrs. Garton is capable of almost unlimited extension and development."

SOME NEW CEREALS.

Messrs. Garton began their work in 1880. For the first two or three years they did not meet with much success. Their first successful crossing resulted in a grain which partook of the characteristics of both its parents. But in the second generation all sorts of queer abortions made their appearance. It is not until the fifth or sixth generation that these tendencies to sport or to revert to original types ceased. After this the new species became permanent and fixed. I saw magnificent specimens of cereals, in every one of which the valuable characteristics of the parents were intensified and improved. I have given one instance of this in the case of the marriage of the Chinese and British oat. Another case is that of the crossing of the old Lincoln red wheat with triticum spelta, a sort of wild wheat, which grows in southern Asia. The characteristics of the latter variety are that the grains adhere firmly to the chaff and consequently are not liable to be beaten out by high winds after they become ripe and before they are harvested. It is also a strong, glutinous wheat and has imparted what the bakers call "strength" to the flour. All these qualities are present in the resulting hybrid. As to barley, the best kinds of malting barley have only two rows of grain, one on each side of the stem. But there are rows of unfertile florets on the other side of the stem, and Mr. Garton has succeeded by hybridization in getting a barley which has all the characteristics of the finest malting barley, such as the Chevalier, and which has six rows of grain instead of two.

As to the straw, Mr. Garton has paid great attention to the evolution of cereals which are stiff and sturdy in their straw, and consequently cannot be beaten down by storms before harvest. By microscopic investigation he has discovered that every straw has a long helical spring, which enables it to bend before the passing gale and spring up again into an upright position. The straw is also strengthened by stays which extend throughout its whole length, and the more this helical spring is developed and the more of these stays there are in the straw the stronger and stiffer it becomes, and the less readily is it beaten down by wind and rain. By cross fertilization these characteristics have been developed.

MORE EXPERT OPINION.

I have said nothing about the new grasses which have been brought out—one a cross between rye and fescue, which has all the feeding qualities of the former and all the personal characteristics of the latter. Then there are the new clovers, which combine the succulent leaves and stems of the red clover with the perennial habits of the white. Mr. John Garton thinks that all cereals and grasses have a tendency to deteriorate unless crossed with new blood, and he places no limit on the improvements which may be made by judicious scientific hybridization. The work of the Gartons has naturally attracted the attention of botanists. Professor McAlpine, botanist to the Highland and Agricultural Society of Scotland, takes a great interest in the work which is being done, and he has reported several times to his society. He has written two papers which appear in the "transactions" of the society, one in 1894 on the cereals, and one during the present year on the new grasses.

Dr. Robert Wallace, professor of agriculture of the University of Edinburgh, bears testimony to the value of the new breeds of cereals and grasses, and says that, having visited many countries in the interest of agricultural research, he has seen nothing to rival in scientific interest or national importance the work in which Messrs. Garton are engaged.

Mr. Alfred Smethan, consulting chemist to the Royal Lancashire Agricultural Society; Mr. James Macdonald, secretary of the Highlands and Agricultural Society; and Dr. McDougall, lecturer on agricultural botany at the Royal Botanical Gardens, Edinburgh, all bear similar testimony to the value of Messrs. Garton's discoveries not only from a scientific but from a practical point of view.

It is hardly necessary for me to enlarge further upon this matter from an agricultural standpoint. I have said enough to show that these two Lancashire corn merchants have been quietly doing a work which is of vast importance to the whole world, and which is worthy of every encouragement.

Swollen Neck

Also Had Great Difficulty With Her Heart—How Cured.

"My daughter had a swollen neck and also heart trouble. After the least exertion she would breathe so hard she could be heard all over the room. She could not sweep the floor or even move her arms without affecting her heart. Her limbs were badly bloated. Her father insisted that she must take Hood's Sarsaparilla, and we gave her about six bottles, when she was cured, and there has been no return of her ailments." MRS. EMMA THOMAS, North Solon, Ohio.

Hood's Sarsaparilla

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

Hood's Pills easy to buy, easy to take easy to operate. 25c.

Kansas Corn--Wheat for 1899 Crop.

The State Board of Agriculture has issued a bulletin giving the situation as to the year's corn crop in Kansas and the preliminary statement, prior to any husking, of its probable yield of marketable product as arrived at through the reports from each county by the producers and others supposed to be most thoroughly familiar with the local conditions, together with the probabilities as to the acreage of winter wheat that will be sown the present season.

Perhaps the most striking feature of the corn situation is the fact that the famed corn belt of north central Kansas, including such counties as Jewell, Mitchell, Osborne, Republic, Smith, Washington, Cloud, Ottawa and others that are nearly every year such great producers, have this year been most unfortunate and present the minimum yields per acre, or 7, 6, 3, 7, 5, 8, 4 and 4 bushels respectively. The total crop for the State is figured at about 127,500,000 bushels, or 17.6 bushels per acre, which is three pecks per acre less than last year's yield. The largest yield per acre is 35 bushels in Wyandotte county; Coffey, Miami and Franklin counties have 33 bushels; Johnson and Linn, 31; Bourbon, Chautauqua, Cherokee, Crawford and Leavenworth, 30; Cowley, 29; Allen and Doniphan, 28; Anderson, Butler, Neosho and Woodson, 26; Douglas, Elk, Greenwood and Osage, 25; Chase, Labette, Marion and Shawnee, 23; Jackson, Lyon and Pottawatomie, 22; Barber, Clark, Morris, Pratt and Wabaunsee, 21; Comanche, Kiowa, Sumner and Wilson, 20 bushels per acre.

The corn crop is virtually made; any changes will be for the better, the present cool, moist weather being especially favorable to the filling and proper maturing of that planted late. A considerable proportion of the whole is already in the shock or is now being cut.

The figures given indicate a total yield of about 24,663,000 bushels, or 16 per cent. less than in 1897. This year's acreage planted in corn was 13 per cent. less than that of last year.

The assessors reported 62,595,377 bushels of old corn on hand March 1, or 25,125,540 bushels less than one year before.

PROBABLE WINTER WHEAT ACREAGE.

The reported probable increase in acreage sown to winter wheat this fall over last amounts to 255,000 acres, or 5.7 per cent., making a wheat field of 4,760,000 acres. Four counties, namely, Chautauqua, Doniphan, Ottawa and Shawnee, report a small decrease of from 2 to 5 per cent. each. The counties of Barber, Brown, Geary, Hodgeman, Jefferson, Kingman, Marion, Montgomery, Pawnee, Pratt, Republic, Riley and Wabaunsee report that they will sow the same acreage as last year. Eighty-eight counties say they will increase their acreage. The increase probable in the counties that grow wheat extensively is Barton 5, Dickinson 2, Harper 7, Ellsworth 4, Ellis 7, McPherson 5, Mitchell 9, Reno 9, Rice 10, Rush 8, Russell 3, Saline 4, Sedgwick 3, Stafford 5, Sumner 4, Thomas 20, and Trego 8 per cent. The soaking rains which fell practically all over the State within the week ending September 12 made the soil in the best possible form for working and the conditions at this time are ideal for plowing and preparing a suitable seed-bed—so much so that having unlimited seed at hand the farmers may be persuaded to sow even more than they as yet contemplate.

The abundant rains while so improving the soil conditions have added largely to the supply of stock water in the streams and the luxuriance of fall pasturage.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

OCTOBER 10—Ziegler Bros., Poland-Chinas, McCune, Kas.
OCTOBER 18—Robt. I. Young and U. S. Byrne, Poland-Chinas, St. Joseph, Mo.
OCTOBER 19—Tom C. Ponting, Herefords and Horses, Mowqua, Ill.
OCTOBER 24—E. E. Axline, Poland-Chinas, Oak Grove, Mo.
OCTOBER 25—K. B. Armour, Herefords, Kansas City, Mo.
OCTOBER 31 AND NOVEMBER 1, 2, 3—C. H. Whitman, Herefords, Kansas City, Mo.
NOVEMBER 3—John Bollin, Poland-Chinas, Kikapoo, Kas.
NOVEMBER 3—Guss Aaron, Poland-Chinas, Leavenworth, Kas.
NOVEMBER 15—Gudgell & Simpson and Jas. A. Funkhouser, Herefords, Kansas City, Mo.
NOVEMBER 17—W. T. Clay and H. C. Duncan, Short-horns, Kansas City, Mo.
NOVEMBER 22—George Bothwell, Short-horns, Nettleton, Mo.; sale at Kansas City, Mo.
NOVEMBER 23—W. P. Harned, Short-horns, Bunce ton, Mo.
DECEMBER 8—Miles Bros., Poland-Chinas, Peabody, Kas.

Pastures for Swine.

This question receives altogether too little attention at the hands of those who keep swine. It should not be forgotten that the pig is by nature a feeder upon grass as well as upon grain and fruits; hence, if swine are to be cheaply fed, some attention must be given to furnishing them with pastures of a suitable character during the larger portion of the season when the ground is bare.

The first pasture that comes in the spring is blue grass. Pigs are very fond of it so long as it is green and succulent. But we should be careful when we first turn brood sows out upon it that are nursing their pigs. They should only be allowed access to it for a short time at first, until they get accustomed to it, or the milk will become so affected that the digestion of the young pigs will be deranged. Blue grass also makes a good pasture for brood sows in the fall, when clover has been injured by frost. But, even in the fall, they should get some additional food when out on pasture.

Clover of the common variety is probably the best kind of pasture for pigs in summer, all things considered. The clover is ready as soon as the blue grass loses its succulence. Both sows and their young may be pastured on clover, but, in addition to the clover, even when at its best, some meal should be given to the pigs, both young and old. When the clover gets too strong for the pigs, so that it begins to get woody, it may be cropped down by other kinds of live stock. When thus cropped down it begins at once to grow again, and so furnishes young, tender food. When the season so shapes that there is likely to be too strong a growth of the clover pasture, it may be divided by a movable fence. One part may be mowed for hay quite early, and, as it soon grows up nicely again, the other part can then be mown. If the clover in the second instance is not fit for hay, it will make litter, and in some instances it may be allowed to fall and lie as a mulch upon the land. A clover pasture properly managed will last from May to the end of September.

Barley and oats will also make a good pasture for pigs. When used for this purpose the chief part of the seed should be barley. Three bushels of seed may be sown to the acre, of which one part would be oats and five parts barley. This mixture may be sown at two or three different times, and, in this way, the pasturing season will be prolonged. Pigs are very fond of this pasture, and they will eat large quantities of it until it becomes woody. They should have some other food also when grazing upon a pasture of this character.

Peas should also make good pasture for pigs. But they should not be allowed on the pea pasture until the peas are nearly ready for cooking in the green stage. This is a favorite pasture with Theodore Louis. But he feeds the green peas a week earlier to accustom them to the change of diet before they are given the range of the pea field. By sowing at different times, a pasture of this kind may be made to last several weeks.

Rye is a good pasture for pigs, especially in the autumn, when other pasture is liable to be scarce. The rye may be sown in the autumn, and the pigs turned upon it when it has made a good growth. They are very fond of it at that season of the year. It will also answer nicely in the spring, but there is usually plenty of blue grass at that season.

Rape has furnished a good pasture for pigs for several months. They are fond of it, and it has properties which push them on rapidly, providing they are given some meal at the same time.

It is thus not a difficult matter to provide abundance of pasture for swine the

whole season through. There can be no question of the benefit to them of large liberty of access to such pastures as they come on in succession. When pigs are kept upon succulent pastures they will eat nearly all the day, except while the sun is very warm, before, at, and after midday. They will thus consume a large amount of pasture, and it must be good for them or they would not consume it. Pasture is a cheap food for swine, hence it should always be provided for them wherever it is practicable to do this.—Canadian Farm Journal.

Sheep and Prosperity.

Says Geo. F. Lewis, a Wisconsin farmer:

"Agricultural as well as commercial prosperity depends upon a fertile soil. The way to maintain fertility cheaply is a live question with many farmers, who have robbed their land by continual cropping. Many of our most successful farmers have found sheep a most profitable animal, and a most excellent help in cheaply enriching and reclaiming light and worn-out land. Many instances could be cited where sheep alone have improved and brought to a high state of fertility farms which were so badly run out that they failed to produce a paying crop. A case in point: A field containing fifteen acres, which did not grow a good crop of oats, was seeded to timothy, red and alsike clover. A flock of sheep was given access after harvest. The result was thirty large loads of the finest quality hay the next season. A flock of well-bred sheep is useful in many ways. They are great scavengers, eating up and converting weeds and brush into cash, and after harvest if allowed to run on grain fields, will pick up that which would otherwise be lost, much better than other stock.

"I have also found a new use for my favorites. If you have a piece of land which is too rich to produce a crop of oats that will stand up, pasture them down early in the season, only turning your sheep on when land and oats are dry. You will be surprised at the crop harvested, as well as the gain made by sheep and lambs. Sow clover and rape or turnips on the grain fields and when pastures are short and harvest past, the sheep will be contentedly grazing, laying fat on their backs, on your land, and filling your pocketbook.

"The future for sheep is particularly bright. We, as a nation, have only just commenced to learn that spring lamb is delicious and prime mutton healthful. While receipts of sheep at the leading markets are large, prices are good, which shows that people are consuming more mutton than formerly. Many object to sheep because they require better fences than cattle, but I wish to remind that class that a farm to bring the most profit must be fenced to turn sheep and hogs, as well as other stock, and that a good sheep fence is also a good cattle and horse fence.

"While at times sheep have not been as profitable as other stock, yet on an average I think they will compare very favorably with any farm animal in cash returns, while the labor in caring for them is less than for either cattle or hogs. Stick to your sheep, for they will enrich your farm and bring you prosperity."

Summary of Experiments in Pig Feeding

By F. B. Linfield, Utah Experiment Station, Logan, Utah.

1. Skim-milk when fed in combination with grain makes a very valuable food for hogs at all periods of their growth, but particularly so during the earlier periods.

2. Skim-milk and grain in combination make a much more economic ration for hogs than either milk alone or grain alone. The milk and grain fed lots required 2.58 pounds of digestible matter, the milk fed lots 2.85 pounds and the grain fed lots 3.19 pounds to make one pound of gain in live weight.

3. When fed in combination with grain, skim-milk has 63 per cent. greater feeding value than it has when fed alone, 100 pounds of skim-milk taking the place of 23.2 pounds of grain in the former case and 14.2 pounds in the latter.

4. The hogs fed on the milk and grain ration made much more rapid gains than either those fed on milk alone or grain alone. The time required to make 100 pounds of gain was 79 days for the hogs fed on milk and grain, 116 days for those fed on grain alone and 147 days when the food was milk alone.

5. When the skim-milk and grain were fed in the proportion of three pounds or less of skim-milk to one pound of grain, the return for the skim-milk was greater than when a larger proportion was fed. When fed in the proportion of two

pounds of skim-milk to one pound of grain, 100 pounds of milk took the place of thirty-one pounds of grain, but when fed in the proportion of four pounds of skim-milk to one pound of grain, only twenty-four pounds were displaced.

6. Hogs fed on milk alone gained very slowly and did not keep in good health; in some cases they were off their feed so frequently that a change of feed had to be made. The milk and grain fed hogs, however, without exception, kept in good health.

7. Young hogs fed on grain alone did not do well and appeared to make poor use of the food they ate. The hogs on this ration required 2.92 pounds of digestible matter to make one pound of gain at an average weight of seventy-three pounds, and only 2.83 pounds when they weighed 127 pounds. When the food was changed to milk and grain a marked improvement was effected in their growth and thriftiness.

8. Those hogs fed on milk alone or grain alone when on pasture, did much better than hogs similarly fed in small pens. The milk fed lot, on pasture, gained .05 pound more per day and required .54 pound less dry matter to one pound of gain than did the lot fed in pens, and the grain fed lot, on pasture, gained .3 pound more per day and required .88 pound less of dry matter to each pound of gain. On the other hand, however, the hogs fed milk and grain in combination did better in the pens, gaining .05 pound more per day than did those on pasture and required practically the same amount of food to make a pound of gain.

9. The appetite of the hogs and the palatability of the food seemed to have a very beneficial effect upon the rapidity and economy of the gain. The milk and grain fed hogs ate .37 pound more digestible matter per day than those fed on grain alone, and 1.46 pounds more than those fed on milk alone. They gained .41 pound more per day than the hogs fed grain alone and .59 pound more than those fed milk alone. They also required .51 pound less digestible matter for each pound of gain than did the hogs fed grain alone and .27 pound less than the hogs fed milk alone.

10. Young hogs are in every way more economic producers of pork. The hogs fed milk and grain required 62 per cent. more to grow a pound of live weight when they weighed from 200 to 255 pounds, than they did when they weighed from thirty-eight to 100 pounds, and for those hogs fed on grain alone the difference in favor of the smaller weight was 56 per cent.

Summary of Experiments in Calf Feeding.

By F. B. Linfield, Utah Experiment Station, Logan, Utah.

1. Calves may be raised very profitably on skim-milk when it is properly fed.

2. From the standpoint of gain in live weight and quality of meat, whole milk is the best food for calves, but it makes too expensive a ration to be profitably fed. Butter fat has been worth 16 cents per pound. The gain in live weight of these calves at 4 cents per pound returns but 10.7 cents per pound for the butter fat fed, at 3 cents per pound for the gain but 8 cents per pound.

3. The calves whose rations were composed largely of skim-milk, while they gained one-half pound less per day yet required practically the same amount of dry matter to each pound of gain as did those fed on whole milk, they made just as good use of the food.

4. The calves fed on whole milk alone gave a greater proportion of dressed meat to live weight than did those fed on skim-milk, and also gave more fat on the carcass.

5. Young calves, up to 3½ months of age, required less milk and less dry matter to each pound of gain than did the hogs. When the calves were five and six months old, however, more dry matter was required, but at least half of it was hay.

6. When fed to calves, fully as large financial returns were obtained for the skim-milk as when fed to hogs. With the gain in live weight at 4 cents per pound, the calves returned 22 cents per hundred pounds for the skim-milk and the hogs 22.8 cents. If the gain in live weight was worth 3 cents per pound, the calves would return 5 cents per 100 pounds more for the milk than would the hogs.

Sheep Notes.

By C. J. Norton, Moran, Kas.

C. A. Limbecker, of Manhattan, has purchased 1,000 feeding sheep in Rio Grande county, Colorado.

New Mexico sheepmen are asking \$2.10 for their lambs, and many Kansas and Nebraska farmers are paying that for them. Northern feeders cannot pay over

One thousand styles and sizes.
For cooking and heating.
Price from \$5 to \$70.



Often imitated. Never equalled.
Best Cookers. Strongest Heaters.
Last Longest. Use Least Fuel.
Made only by
The Michigan Stove Company
Largest Makers of Stoves and Ranges
in the world.
Sold Everywhere.

\$1.75 per head and get out, and as a result the number fed in the North will be far behind the average, thus helping the Kansas feeders' market.

Recently a Utah man had two sheep, which had bells on, killed by wolves, and as they were the only bells in a "large flock," he has demonstrated to his satisfaction that bells do not protect sheep. The fact is, two bells did not protect a "large flock," which probably means 500 or more. Just imagine a bell to every two sheep in this herd, or 250 bells. What an infernal racket they would make, and if any other kind of live stock is near they will run to the protection of the sheep. One or two bells are of no value, but 30 to 50 per cent. is what is needed.

Have You Ever Been Thus Deceived?

The gullibility of the average consumer of merchandise of all kinds is well known, and the ability of "shrewd" (we should say dishonest) merchants to palm off imitations of articles which have gained a reputation and are demanded by name is also well known. In making small and insignificant purchases it is not to be wondered at that consumers can often be induced to accept substitutes or articles which are claimed to be "just as good" by the interested merchant, but when it comes to articles of value which are likely to be used the greater part of a lifetime, we think the purchasers of such goods are as foolish as the merchant is dishonest if they allow themselves to buy anything but just exactly what is asked for by name. As a glaring instance of what can be done in this connection, we desire to name but one very well-known article of household use—to show what is often attempted and sometimes accomplished. As long ago as 1882 the Michigan Stove Company of Detroit, Chicago and Buffalo placed upon the market a complete line of cooking and heating apparatus for all kinds of fuel and the highest possible degree of merit—which they marketed under the name of "Garland" Stoves and Ranges, and as this name was applied to but the highest grade or quality of each type of stove or range their products were an electric success and the name of "Garland" has always stood as the symbol of goods of the first grade only, and are to-day the only goods of their kind sold under any trade name which are not made in several qualities. Other stove-makers, counting, no doubt, upon the credence of the public, commenced to apply a trade name to lines of goods varying in quality from very good down to the cheapest and most inferior grades and then imitated the shape and style of the "Garland" trade mark, even to the shape and arrangement of the lettering—copying even the colors in "Garland" posters, imitating the designs of "Garlands"—with the result that many unscrupulous stove merchants have been successful in selling third and fourth grade imitations of "Garlands" upon the statement that what they offered were "just as good," etc. The courts have closed the factories of some of the most shameless of these imitators, enjoined others, and yet there are those who escape the pale of the law and continue to dupe the public—whom, we repeat, are themselves to blame for not insisting upon having a "Garland" and nothing else.

The above is but one of many instances which might be cited, but it is sufficient to show that it is not only upon small articles of merchandise upon which consumers can be deceived, but large and important ones as well. When will the buying public learn to protect itself?—Chicago Times-Herald.

Notes from the Fairs.

WICHITA STATE FAIR.

The second annual Wichita State fair was held at Wichita, September 19-24. The weather was all that could be asked for during the entire week.

A novel feature, which took well with the people, was the free out-door entertainment, furnished by the fair association.

The stock exhibits, as a whole, were not as large as usual.

In the horse department, C. F. Pennington, Palmyra, carried off the largest number of ribbons in the draft horse class. A. E. Chambers, Clear Water, for roadsters; G. Schwartz, Oatville, had an exceptionally fine sucking filly in this class.

The Short-horns were represented by W. H. Miller & Son, Bayneville; W. I. Snodgrass, Gordon; L. B. Hull, Douglass; A. K. Pruitt, Goddard. The Herefords were represented only by Jacob Mahannah, Maize. W. H. Miller & Son took all the prizes in the Short-horn class, and also took the sweepstakes herd prize.

In the sheep department, H. H. Hague, Walton, took all the fine-wool prizes. James Walton, Newton, took all the long-wool prizes. J. B. Hall, Rose Hill, took all the middle-wool prizes.

The swine department was represented only by Poland-Chinas, and this division of live stock was the best filled on the ground. There were no second prizes offered by the fair in this class, but the Superintendent, E. B. Jewett, secured second prizes which nearly equalled the

Short-horns, two of Red Polled, and four of Jerseys. The swine display was good but the number of hogs not so large as last year. The show of fruits, which has always been good, was not up to their usual mark this year. Otherwise the fair was quite a success in every department.

The association is highly favored by having the celebrated Forest Park for their grounds, also in having the premier fair Secretary of the West, in the person of Charles H. Ridgway, who is a whole host in himself, and actually revels in the multitudinous work pertaining to his office. The officers and directors of the association are the stalwart citizens of the county and wisely co-operate with their indefatigable Secretary in making the fair the foremost representative fair held in Kansas.

The principal exhibitors of draft horses were T. G. Stewart, Thos. Mintch, E. D. Jackson and C. F. Wolf & Son, Ottawa; E. W. Vanderman, Lane; Geo. Groenmiller & Son, Centropolis.

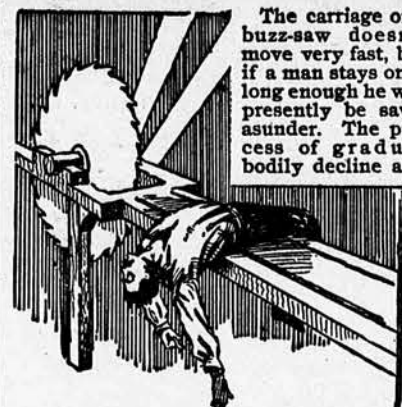
The exhibitors in the cattle department, of Herefords, were J. C. Curry, Quenemo; Steele Bros., Belvoir; E. A. Eagle, Rosemont; A. E. Metzger, Bond, and Simmons & Ackley, Nellville. Short-horns, C. F. Wolf & Son, Ottawa, and Geo. Bothwell, Nettleton, Mo. Red Polled cattle, Geo. Groenmiller & Son, Centropolis, and F. A. Shoemaker, Centerville. Jerseys, J. A. Musson, M. Adams, M. F. Bradley and J. P. Kerr, Ottawa.

The expert judge for the entire cattle department was that eminent breeder of Herefords and Berkshires, Mr. C. A.

Sweepstakes cow, beef breeds, Steele Bros. Hereford cow, Miss Plutarch; second, Geo. Bothwell. For best herd, dairy breed, first, J. A. Musson's Jerseys; second, Geo. Groenmiller & Son, Red Polled cattle.

The swine department had one exhibit of Chester Whites, by A. E. Staley, Ottawa, and an exhibit of Berkshires by Samuel McCullough and Leslie McCullough, Ottawa. The principal swine display was made by the following Poland-China breeders: E. T. Warner, Princeton; F. D. Spaulding, Richmond; H. Davison, Waverly; J. N. Kirkpatrick, Ottawa, and Thomas Gentry, Richmond. The awards for Poland-Chinas were as follows: Boar 2 years old or over, first, E. T. Warner; second, J. N. Kirkpatrick. Boar 1 year old and under 2, first, Warner; second, Davison. Boar 6 months old and under 1 year, first, Davison; second, Warner. Boar under 6 months, first and second, Kirkpatrick. Sow, 2 years old and over, first and second, E. T. Warner. Sow 1 year old and under 2, first and second, E. T. Warner. Sow 6 months old and under 1 year, first, Warner; second, Spaulding. Sow under 6 months, first, Davison; second, Warner. Sow and litter of pigs, first, Warner; second, Davison. For best herd, boar and three sows, E. T. Warner. For boar and five of his get, first, Warner; second, Davison. The sweepstakes for boar, also sow, awarded to E. T. Warner.

The sheep department was quite good and was represented by the following exhibits: Southdowns, by D. F. & A. E. Carpenter, Wellsville; Shropshires, by E. S. Kirkpatrick & Son, Wellsville;



The carriage of a buzz-saw doesn't move very fast, but if a man stays on it long enough he will presently be sawn asunder. The process of gradual bodily decline and

loss of energy which leads finally to consumption is not always very rapid, but if it isn't stopped it will presently begin to saw its way into the most vital part of the body, the lungs. There would be very little consumption if every family would keep Dr. Pierce's Golden Medical Discovery in the house, and use it whenever feeling "out of sorts." It keeps the entire body in such a high condition of health and forcefulness that wasting diseases have no chance to get a foot-hold. A teaspoonful or two before meals, in a little water, gives the digestive organism power to assimilate the blood-making, nerve-toning, strength-building properties of the food.

It enables the liver and excretory system to clear the circulation of bilious poisons and remove all waste matter from the body. It replaces worn out tissue with hard muscular flesh, and changes weakness and debility into active power and nerve force. The originator of this great "Discovery," R. V. Pierce, M. D., is chief consulting physician to the great Invalids' Hotel and Surgical Institute of Buffalo, N. Y., at the head of a staff of nearly a score of eminent associate physicians and surgeons. He has acquired, in his over thirty years of active practice, a reputation second to no living physician in the treatment of obstinate, chronic diseases. His prescriptions must not be confounded with the numerous "boom" remedies, "extracts," "compounds," and "sarsaparillas," which a profit-seeking druggist is often ready to urge as a substitute. Dr. Pierce's medicines are the product of wide experience and deep study. Any one may consult him by mail free of charge.

of beef breeds, also winning a similar sweepstakes at the Bismarck fair at Lawrence the week before. The Belvoir herd of Herefords now numbers about 150 head, and Steele Bros., with the present start with Herefords, will soon rank high as leading breeders and exhibitors of the West.

Every day the farm implement is left idle in the field makes for the profit of the manufacturer.

B. & B.

Prices That Win.

Selling choice goods at less prices and offering large assortments are what's making and to keep on making this five acre store possibly the busiest dry goods store in America.

New goods ready--most extensive collections we've ever shown.

Send for samples--let goods and prices prove that when and every time you send here, you'll save money.

41-inch all wool cloth Chevillottes 40c yard; see if you can match these, width, quality and color range, under half a dollar--variety of stylish shades.

50-inch all wool black Chevillottes and Diagonals 50c yard--extra wide, but it's the extra choiceness you'll be impressed with.

Splendid all wool Dress Goods 25c.

Large lines choice, dressy Dress Goods 50c, 75c, \$1.00 and up to the finest.

Fine new Silks 50c, 75c to \$2.00.

SAMPLES COST YOU NOTHING.

BOGGS & BUHL

Department G. G. Allegheny, Pa.

Geo. Groenmiller & Son,

Centropolis, Franklin Co., Kas.,

BREEDERS OF RED POLLED CATTLE, COTSWOLD SHEEP and FANCY POULTRY.

For Sale--A few bulls; also young bucks.

HARNESS BEST QUALITY FOR LESS MONEY THAN ANY OTHER CONCERN ON EARTH. BAR NONE. LARGE ILLUSTRATED CATALOGUE, No. 24, TILLOTSON BROS., CHICAGO. **FREE**



BEAUTIFUL BOULEVARD IN FORT LEAVENWORTH, LEAVENWORTH, KAN.

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

first prizes. R. S. Cook, Wichita, took first on boar 2 years old; boar under 1 year; boar under 6 months; sow under 1 year; best sow with litter of five pigs; best boar with five of his get under 8 months; best herd, one boar and three sows under 1 year; second prize on boar and sow under 6 months and best herd one boar and three sows over 1 year. The Elm Beach farm, Wichita, took first on best sow 2 years old; first best herd, boar and three sows 1 year old; second on boar 2 years old; boar under 2 years, and best sow with litter of five pigs. F. J. Knappenberger, Penasola, took first on boar and sow under 2 years and sow under 6 months, and second on sow under 1 year and best boar with five of his get under 8 months. Hiram Smith, Colwich, took second on boar under 2 years. Frank P. McGuire, Haven, had some very good animals in this division.

The exhibitors in the swine department presented Superintendent Jewett with a very fine cane. The presentation speech was made by Hon. C. M. Irwin.

The special sweepstakes prize for the best sow on the grounds was taken by Elm Beach farm, on Clara Hadley.

The poultry division was well represented.

L. M. NELLIS.

THE FAIR OF KANSAS.

The thirty-second annual fair of the Franklin County Agricultural Society, held at Ottawa, September 20-23, was the leading fair of Kansas and was the principal battle ground for the breeders of the State this year. The live stock display has not been exceeded in the State for several years. The display of cattle was a big feature of the fair. There were five exhibits of Herefords, two of

Stannard, Hope, Kas., who did his work with a dispatch and skill that pleased every exhibitor.

The awards for Short-horn cattle were as follows: Bull, 3 years and over, first, Geo. Bothwell; second, C. F. Wolf & Son. Bull 2 years old and under 3, second, Wolf & Son. Bull 1 year old and under 2, first Bothwell; second Wolf & Son. Bull calf under 1 year, first Wolf & Son. Cow 3 years old and over, first, Bothwell; second, Wolf & Son. Heifer 2 years old and under 3, first, Bothwell; second, Wolf & Son. Heifer 1 year old and under 2, first, Bothwell; second, Wolf & Son. Heifer calf under 1 year, first, Bothwell; second, Wolf & Son.

The Hereford awards were as follows: Bull 3 years old and over, first, Steele Bros.; second, J. C. Curry. Bull 2 years old and under 3, first, A. E. Metzger; second, E. A. Eagle & Son. Bull 1 year old and under 2, first, Eagle & Son; second, Steele Bros. Bull calf under 1 year, first, Simmons & Ackley; second, Steele Bros. Cow 3 years old and over, first, Eagle & Son; second, Steele Bros. Heifer 2 years old and under 3, first, Steele Bros.; second, A. E. Metzger. Heifer 1 year old and under 2, first and second, Steele Bros. Heifer calf under 1 year, first Steele Bros.; second, J. C. Curry.

In the awards for Red Polled cattle Geo. Groenmiller & Son took first on aged bull, bull calf, aged cow and two-year-old heifer, and F. A. Shoemaker won first on two-year-old bull, yearling heifer and heifer calf.

In the herd and sweepstakes ring for cattle the awards were as follows: Best herd, beef breed, first, Geo. Bothwell, Short-horns; second, Steele Bros., Herefords. Sweepstakes bull, beef breeds, first, Geo. Bothwell; second, Wolf & Son.

Cotswolds, by Geo. Groenmiller & Son, Centropolis.

NOTES.

Geo. Groenmiller & Son, of Centropolis, Franklin county, exhibited Red Polled cattle, Cotswold sheep, and a draft stallion and were very successful in winning prizes for every entry made. Their herd of Red Polled cattle won second on the gold special for the best beef herd in Franklin county, also second premium for the best dairy herd, and thereby sustained their claim that the Red Polled cattle are the best combination breed.

The Short-horn show herd of Geo. Bothwell, of Nettleton, Mo., which was so successful in winning first premiums and sweepstakes, is one of the very best herds to visit Kansas for many years. The writer never saw better roan Cruickshanks in any show ring. This herd has been shown at several leading fairs this season and invariably won the best premiums. Mr. Bothwell intends making a great Short-horn sale on November 22.

Steele Bros., of Belvoir, Douglas county, made a very creditable exhibit of nine Herefords and were the most successful exhibitors of the popular white-faces at the fair. Their show herd was headed by their herd bull, Princeps 66683 by Gudgell & Simpson's Lamplighter 51834. They also showed the yearling bull, Chicago Lad, a handsome animal of their own breeding, and a bull calf, Dewey by Ben Butler, of their own breeding. Among the females of their show herd was Jane 54439 by Archibald 1st, the two-year-old cow, Tidy A, the yearling heifer, Queen May by Ben Butler, and in the heifer class under 1 year they showed Plutarch 3d, that won first in class and sweepstakes as best female

Are You Satisfied

with the returns from your cows? No? Then why don't you make them do better? You can increase the yield of butter fully 25 per cent. by use of this **SAFETY HAND SEPARATOR**. The butter will also bring a better price because the separator will greatly improve its quality. Anybody can run it. No expert knowledge or experience is necessary.



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

Gossip About Stock.

Wm. Plummer, Osage City, Kas., after breeding Poland-China swine for nineteen years in Kansas, has concluded to retire from the business, and announces a closing-out sale, to be held at his farm, October 14, 1898.

Breeders who have been showing stock at the fairs this fall generally report good sales and unusual inquiry, which indicates a healthy demand for improved stock of all classes. Nearly every breeder who had any sale stock of cattle, sheep or hogs with his exhibit disposed of the same before leaving the grounds.

Col. J. N. Harshberger, of Lawrence, Kas., writes: "I will make a sale for M. C. Vansell, October 25, at Muscotah. Having disposed of my farm, I will devote my entire time to the auction business." Mr. Harshberger has had many sales in Kansas with good success, and solicits the correspondence of breeders who intend making public sales.

R. H. Wheeler, breeder of Poland-Chinas, Lawrence, Kas., is having a very successful business this season. During the fair at Lawrence he sold fifteen head and had considerable inquiry for future orders. His herd boars have proven great sires, but now he offers them for sale in our "Special Want Column," as he can use them no longer.

Mr. J. R. Killough, Ottawa, Kas., has a splendid lot of March pigs by the Poland-China sire, J. R.'s Tecumseh, also a few litters by a son of Klever's Model and Tecumseh 2d and out of such sows as Bijou Wilkes, Bess McKinley and Ideal Sanders. Mr. Killough is one of the leading Kansas breeders and parties ordering from him will not only get good pigs but fair treatment as well. Notice his advertisement.

The beef-producing public will doubtless be interested in the coming sale of unregistered Herefords that will be made at Kansas City, on Thursday, October 27, by Richard Walsh, who will offer in lots of ten head 400 selected heifer calves. This draft comes from the Adair herd, commonly known as the JJ's. This herd was founded in 1883 by Mr. Chas. Goodnight, who was at that time a partner of the late John Adair. The original stock was Short-horn cows bred to pure-bred Hereford bulls. Annually recruited with pure-bred bulls, the herd soon became popular and assisted in supplying the demand for a better class of bulls from over half a score of States and Territories. Steers from this breeding farm in the feed lots of competent feeders have been made to weigh over 1,600 pounds, and 1,400 pounds has been the average result on the Montana ranges. In 1896 the herd had increased to over 4,000 head, when 1,500 of the best cows were topped out and the 2,500 sold. This 1,500 choicest ones, with some reserved increase, now constitutes the breeding herd. Selections of cows from this Adair herd were winners of eight first and special prizes at the Fort Worth live stock exhibitions in 1896 and 1898, the only times that they have ever been exhibited. The crop of 1898 calves are believed to be the best ever bred in the herd. The bull calves are offered at private sale, the greater part of them being already contracted for at \$65 per head. The heifer calves will be offered in lots of ten by public auction, at the Kansas City stock yards sale pavilion, October 27.

A little patch of buckwheat, a maple "sugar bush" or small field of growing sorghum, a group of thrifty shoats and steers, a bee hive or two, maturing fowls and grazing cows on the farm at this season of the year foretell winter feasts there that would make a king's mouth water.

On a decaying barn on an abandoned farm in Maine was seen portions of a painted advertisement of a commercial fertilizer, and a ride of several miles around failed to reveal a single field of red clover! Is it possible that the article advertised and the absence of clover played any part in the farm's abandonment?—Farm, Stock and Home.

WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service for the week ending September 26, 1898, prepared by T. B. Jennings, Section Director:

NOTE:—The Director is instructed by the Chief of Bureau to announce that it has become necessary to change the dates for the Omaha convention of Weather Bureau officials from October 20 and 21 to Wednesday and Thursday, October 12 and 13. The Honorable Secretary of Agriculture will be present. The convention will be held in the rooms of the Commercial Club in the Board of Trade building. Hotel rates have been reduced for this occasion. It is hoped the voluntary observers and crop correspondents will take advantage of this opportunity, this being the first time the convention has been held so near our door.

GENERAL CONDITIONS.

A warm, dry week. Light showers occurred in Barber, McPherson, Douglas, Wyandotte, Johnson, Allen, Bourbon, Crawford, Cherokee, Labette and Sumner counties, with traces of rain in Greenwood, Woodson and Riley.

RESULTS.

EASTERN DIVISION.

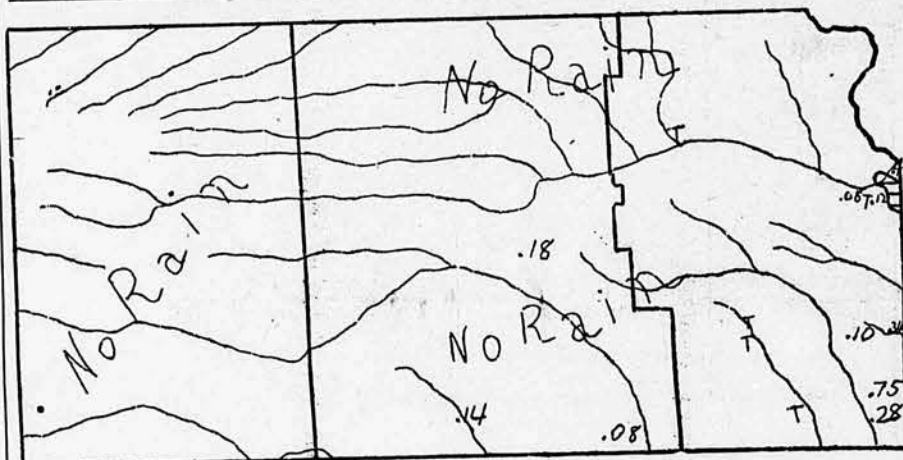
Plowing is nearing completion. Wheat-sowing is progressing rapidly and the early-sown is coming up, presenting a good stand. Late corn has ripened rapidly this week, and some is being cut. Early corn is fully ripe, and in Coffey county is hard enough to shell, while in Woodson some is being marketed. Prairie hay is a fine crop, and meadows cut early have now produced a second crop, which is being cut. The potato harvest has begun, but in some counties the potatoes on low ground are rotting. Pastures are greatly improved and stock water is abundant. The forage crop is large and is being cut.

Allen county.—A fine week for corn-cutting and potato harvesting; wheat is up and a good stand; the ground is in fine condition to work.

Anderson.—A favorable week for farm work of all kinds; corn-cutting about done; wheat-seeding in progress.

Cherokee.—All farm work stopped by the hot weather; pastures good; hay spoiling in stack.

Coffey.—Farmers threshing, cutting corn, cane, millet, and second crop of hay, and plowing where not too wet.



ACTUAL RAINFALL FOR WEEK ENDING SEPTEMBER 24, 1898.

Crawford.—Ground very wet; but little wheat sown.

Doniphan.—Weather fine; ground in fine condition for plowing and seeding; fruit very scarce.

Douglas.—Most of the wheat is sown, and the ground is in fine condition to grow it; much of the early corn is cut and in shock; corn is fairly good for the season.

Elk.—A good week for corn-husking.

Franklin.—A hot week, which has been very favorable for maturing the late corn.

Greenwood.—Farmers are busy sowing wheat; potato harvest begun to save the potatoes from rotting; cane being cut.

Jefferson.—Clear week, fine for maturing crops and cutting fodder; wheat-sowing begun.

Johnson.—Favorable week for wheat-sowing, corn-cutting, and threshing; early-sown wheat up and looking finely; pastures improved; stock water abundant; a few apples coming into market, light yield; potato-digging progressing; potatoes rotting on low ground.

Labette.—Corn-gathering begun; very little wheat sown yet, ground too wet to plow.

Leavenworth.—Weather fine; ground in good condition; wheat-seeding progressing; second cut of prairie hay paying; potatoes and turnips looking finely; pastures fair; stock in good flesh; corn mostly in shock.

Lyon.—Cool weather has added many tons to the amount of fodder.

Marshall.—Good week for plowing and seeding; fall grain nearly all in, early-sown coming up very nicely; haying all done, crop is good and well taken care of.

Montgomery.—A good week for sowing wheat and a large acreage has been sown in fine condition, the early-sown is up and growing rapidly; pastures fresh and green like spring; corn fields dry.

Osage.—Fine week for farm work; corn-cutting in progress; pastures in excellent condition; stock water abundant and stock doing well; tomatoes have made an average crop.

Pottawatomie.—Dry, warm week; wheat-seeding well advanced, an increased acreage over last year; ground in fine condition.

Riley.—A warm, clear, rainless week; temperature 10 degrees above normal, rainfall 0.63 inch below; good for threshing and corn-gathering.

Wabawsee.—Much corn in the shock, and all practically beyond injury by frost; hay and corn in large quantities; stock in fine condition; fruit scarce.

Woodson.—Corn-gathering has begun and some new corn has been marketed; fall pasture becoming very good.

Wyandotte.—Wheat-sowing is progressing rapidly; ground in fine condition; late corn being cut; late pasture in fine condition;

Hessian fly bad in some wheat fields; a few knotty apples being gathered.

MIDDLE DIVISION.

The ground is in fine condition in nearly every part of the division and plowing is being pushed to completion. Wheat-sowing is progressing rapidly, except in Sedgwick, where it is too dry; early-sown wheat is up and presents a good stand. The warm, dry weather is rapidly drying out the wheat stacks wet by the recent rains, and threshing has been resumed. Early corn is ripe and late corn nearly so. The fodder crops are large and are being cut. Pastures are improving rapidly, with abundant stock water. Blackbirds are a pest in the forage and corn fields of McPherson county.

Barber.—Good week for farming operations; farmers busy cutting corn and feed-stuff and plowing for wheat and rye; cattle doing well; pasture in good condition and water abundant.

Barton.—Wheat-sowing is in progress; wheat coming up nicely; threshing delayed by dampness.

Cloud.—Early-sown wheat in good condition; ground getting very dry; stock in good condition.

Cowley.—A hot, dry week, rain needed; wheat-sowing progressing rapidly; stock doing well; pastures drying up.

Dickinson.—Farmers all busy seeding, the ground being in fine condition.

Edwards.—Warm days, cool nights; seeding and threshing in progress; weather favorable for fall work.

Harvey.—Dry, hot week; seeding well advanced, much of the wheat up; corn nearly ready to crib; sorghum-cutting in full progress.

McPherson.—Fine weather for seeding; early-sown wheat coming up nicely; corn all ripe and fair crop, spotted; blackbirds damaging cane and Kafir greatly, and even corn—are a pest.

Ottawa.—Wheat-sowing is being pushed, early-sown up and looking finely, a larger acreage than usual will be sown; pastures have improved since the rains; the rains came too late to be of much benefit to forage crops.

Phillips.—Good weather for putting in small grain; no rain this week; no frost yet.

Reno.—Comfortable week; plowing finished and wheat-sowing progressing rapidly, with ground in fine condition; early sowings coming up finely; corn ripe; sorghum and Kafir fodder being put up; pas-

tures good; alfalfa growing nicely and will make good fall pasture.

Republic.—Ground in fine condition, and a large acreage of wheat going in; no frost to do any damage yet.

Rush.—Drying slowly; some threshing being done, but grain in bad condition; seeding again in progress; will be more volunteer wheat than usual, much of which will be depended on to make a crop; loss to farmers by damaged wheat will be heavy.

Saline.—Warm, dry week; farmers drilling wheat rapidly; some wheat up, making fine growth.

Sedgwick.—Too dry for fall seeding; rain is needed.

Sumner.—Hot, dry week, with a few local showers; plowing nearly done; sowing in full progress; stacks dry, favorable for threshing.

Washington.—A good week for seeding, which is well advanced, a large acreage being sown; ground getting dry on top; wheat coming up very rapidly; pasture starting up and stock doing well.

WESTERN DIVISION.

The range grass is showing green and is making a fine fall pasture. The ground is in fine condition and plowing is being pushed. Grain stacks, wet by the recent heavy rains, are drying out and are being threshed. Wheat-sowing is progressing. Haying is about completed. A large forage crop is being put up. Stock water is abundant.

Finney.—A pleasant, warmer week; many farmers putting up hay and feed; fall pastures showing green; very small acreage of wheat will be sown.

Ford.—Dry, warm week, fine weather for fall plowing and ground in very good condition.

Gray.—No rain; grass improving; plowing continuing and threshing in progress.

Hamilton.—A warm, dry week, favorable to farm work, and most of the farmers are preparing for their fall sowing; grass is getting green; hay and alfalfa are good crops; corn a good crop, also the forage crops.

Thomas.—Threshing progressing slowly, grain is quite damp yet in the stacks; ground is in fine condition for plowing and sowing, and wheat-sowing is in progress; cane and Kafir corn all cut; range grass getting green and making good fall pasture.

Wallace.—Ground is in fine condition for fall plowing; threshing in progress; haying about completed; range grass very good.

Luck and sense are seldom strangers.



ON THE BIAS.

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

S/A Bias Girth

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

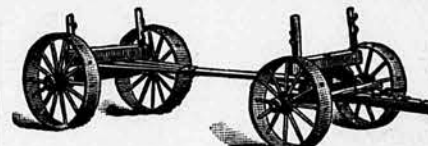
W. M. AYRES & SONS, Philadelphia.

Pure Water for Stock.

Recent researches have demonstrated that hog cholera and diseases of hogs are due to bacteria, or germs. The germs collect in the shallow watering places and infect the hog troughs. Pigs are compelled to drink this water, thereby sowing the seeds of cholera, weakening their vitality and causing many to die throughout the fall and early winter. This germ life is not killed during the winter by freezing, but only remains inactive until spring, when, due to the thawing of the snow and spring rains, the germs contained in the filth of the hog yard, watering troughs and wallowing holes, again thrive and become active, producing serious results at once, the disease often continuing until the entire herd dies. This is all due to hog cholera, caused by infected water. Our soldiers die in great numbers during the fall of diseases contracted by drinking water contaminated by certain germ life that causes specific diseases, typhoid fever being the principal one. To prevent the diseases peculiar to pigs, the old methods of watering must be discontinued, and some of the late watering devices provided, whereby water may be kept pure and furnished continuously. The fact that pigs, chickens and ducks all fatten perceptibly faster when pure water is kept before them constantly from a late watering device, cannot be denied, and any farmer could well afford to pay rent for a good hog-waterer. The latest and most improved, one that will meet all demands and water from fifty to three hundred hogs a day, also any number of other stock, has just been presented by the Stock Fountain Company, of Lake City, Iowa, and can be obtained from them or through any dealer. The most careful watering of hogs should be looked into at once and at this time of the year, as the above shows that fall and spring are the seasons when germs of hog cholera are implanted and by impure water, therefore pure water should be furnished and by some of the watering devices now so thoroughly advertised, which continuous advertising proves their claims to be true. There are thousands in use, and, when once tried, many times the cost would not be taken for one if another could not be obtained.

Farm Wagon for Only \$19.95.

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon, sold at the low price of \$19.95. The wagon is only twenty-five inches high, fitted with twenty-four and thirty inch wheels with four inch tire.



This wagon is made of best material throughout, and really costs but a trifle more than a set of new wheels and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Company, Quincy, Ill., who also will furnish metal wheels at low prices made any size and width to fit any axle.

We may differ as much as we please about the effect of dehorning upon the disposition of the animal, but all are ready to admit that the absence of horns inspires confidence, and makes the eye of the creature look more guileless.

"The least said is soonest mended," is an axiom that more heed should be given to. Scolding, ranting, raving or threatening about something that has happened that no words can mend is supreme folly, and makes a bad matter worse.

We now begin to understand why colonization is greedily welcomed by politicians, it gives a chance to pay hundreds of political debts that else would have to go unpaid. The application for postoffices and other situations in our new territories are legion in number.

The Home Circle.

THE CALL.

The clouds grew dark as the people paused,
A people of peace and toil,
And there came a cry from all the sky:
"Come, children of mart and soil,
Your mother needs you—hear her voice;
Though she has not a son to spare,
She has spoken the word that ye all have
heard.
Come, answer ye everywhere!"

They need no urging to stir them on,
They yearn for no battle-cry.
At the word that their country calls for
men
They throw down hammer and scythe and
pen,
And are ready to serve and die!
From the North, from the South, from
East, from West,
Hear the thrill of the rumbling drum?
Under one flag they march along,
With their voices swelling a single song,
Here they come, they come, they come!
List! the North men cheer the men from
the South,
And the South returns the cheer.
There is no question of East or West,
For hearts are atune in every breast,
'Tis a nation answering here.

It is elbow to elbow and knee to knee,
One land for each and for all,
And the veterans' eyes see their children
rise
To answer their country's call.
They have not forgotten—God grant not
so!
(Ah, we know of the graves on the hill),
But these eager feet make the old hearts
beat,
And the old eyes dim and fill!
The Past sweeps out and the Present
comes,
A Present that all have wrought,
And the sons of these sires, at the same
camp-fires,
Cheer one flag where their fathers
fought!
Yes, we know of the graves on the South-
ern hills
That are filled with the Blue and the
Gray.
We know how they fought and how they
died,
We honor them both there side by side,
And they're brothers again to-day,
Brothers again—thank God on high!
(Here's a hand-clasp all around).
The sons of one race now take their place
On one common and holy ground.
—Richard Barry, in Harper's Weekly.

SHAFTER'S MARKSMANSHIP.

Col. Thomas H. Barry, Adjutant General to Major General Otis, now at Manila, before leaving told a good story of Major General Shafter's shooting in the days when he was a Colonel on the Mexican border. A day before he took ship for the Philippines, Barry, with Brigadier General Hughes and a Chronicle representative, discussing Shafter's gallantry before Santiago, said:

"I was Shafter's aide years ago when we both were bronzing under the hottest sun that shines in these States. Shafter was known as the best shot not only in his regiment, but in the whole country about. One day an officer from another regiment not acquainted with Shafter's ability in this line, visited the post and soon made it apparent to us that he esteemed himself about as expert a marksman as ever pulled a trigger. We secretly laughed at his opinion of himself and whispered to each other, 'Just wait till Pecos Bill gets after him.'"

"Well, his time came. One morning Shafter and I started out to ride forty miles or more to another post, and the visitor asked to be allowed to accompany us. We trotted along easily until about noon, when we halted to eat our luncheon, which we packed with us. At that time officers carried short carbines on such service, and I had one strapped to my saddle. The conversation drifted from the topography of the country to marksmanship, and the officer—call him Smith—said, 'Say, Colonel, have you got any shots in your regiment?'"

"Shafter smiled and replied, 'Have I? Why, I've got some men that can discount the sharpshooters you read about. Officers, too. I'm not much myself, but when you get back to the fort I'll tell a few of the good ones to show you a thing or two.'"

"Just then an antelope sprang up a quarter of a mile away, and all seeing it at the same moment, reached for their carbines. Shafter was quickest, and in a second adjusted the sights to 600 feet and blazed away. Down came Mr. Antelope, and when we rode up to where he lay we found a bullet over his heart."

"Smith examined the wound, looked over the carbine, and then muttered, half aside, 'Not bad. You say you're not in it with other officers in your regiment, Colonel?'"

"No," said Shafter, 'I'm ashamed of myself alongside of them.'"

"A couple of hours later another antelope appeared, but further away. Smith fidgeted a moment and then said eagerly, 'Colonel, may I go after him?'"

"Pshaw! You wouldn't chase him on horseback at that distance," exclaimed Shafter, seizing the weapon and leveling

it as he spoke. 'I'll put lead in his head.' "He fired, and we saw the animal bound away. Smith was gleeful. 'A little high, Colonel,' he shouted as we galloped on. Reaching the place where the game had been, we were on a high rising piece of ground, and, looking down fifty feet, Shafter pointed to a dark object and said quietly, 'I guess I got the head.'"

"Sure enough, the antelope was lying dead, with a bullet through his left ear. Smith looked at me, disgusted as any man I ever saw."

"And the officers are better?" he queried.

"Shafter's eyes twinkled. 'Lieutenant Smith,' he replied, with assumed sternness, 'I want you to say nothing of this at the post. I ought to have hit him in the eye, and I feel ashamed of my poor aim.'"

"Smith, who had no sense of humor, was dumbfounded. For years after he spread the fame of Colonel Shafter as a marksman far and wide."—San Francisco Chronicle.

"The Man Behind the Gun."

One of the most interesting things in connection with the naval battles of this war, and one of the things that has caused the most comment here and in Europe, is the fact of the superior marksmanship of the American sailor, which has been typified in the saying, "The Man Behind the Gun."

It is interesting to hear from commanders and officers in command of guns on our different ships the reason for this. The method on our ships when approaching the enemy is to fire a small caliber gun, and, as with the use of telescopes, the direction can always be obtained at once, the only difficulty is to find the elevation. This is obtained by first firing short of the object, and then,



NOS. 1 AND 2. HOLES MADE IN THE TOWA BY SPANISH SHELLS.

as the shot strikes the water, gradually raising the gun until the enemy is struck. With the small caliber rapid-fire gun, this is a matter of only two or three shots, and the range is obtained in less than a minute.

The moment any one firing one of the small guns secures the range, it is telegraphed or telephoned to every gun on the ship, and with the magnificent machinery for firing the large guns, it is only a few seconds when every weapon of different sizes on board the ship which can be aimed at the object is sending shot and shell of all descriptions straight at the mark, with the consequent result that it is practically impossible for the gunners on the enemy's ship to stay at their guns.

As a result, our ships were seldom hit. Nevertheless, when they were once struck, the frightful execution done by these shots shows what might have happened to our fine battleships if the good American behind the gun had not known and done his work so well.

The illustrations we reproduce from Harper's Weekly show the damage done by a Spanish shell which struck the Iowa above the water-line and, after passing through the side of the vessel, crashed into the forward turret. Picture No. 1 was taken from the inside of the Iowa looking out, and No. 2 shows the hole made in the turret.

Take it off!

Don't wear your working apron all the time—it's a sign of poor management. Do all your cleaning with

GOLD DUST Washing Powder

and you can change your working clothes for resting clothes early in the day. It saves time, work and worry. Largest package—greatest economy.

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

Too Particular.

It was a squatter's cabin on the borders of a big swamp, and the squatter himself sat smoking his pipe as the Colonel rode up and asked for a drink of water. One of the half dozen children ran to the swamp with a gourd and filled it, but the Colonel turned away from it and said:

"I can't drink that stuff; it's full of young tadpoles."

"Yes, they do seem to be purty thick," replied the squatter, as he blew a cloud of smoke above his head.

"I should think you'd be afraid to swallow those things," said the Colonel.

"Don't see nothin' to be afraid of, sah. Reckon it's worse on the tadpoles than on us. Bin drinkin' it right along for twenty years, and nobody's bin hurt yit."

"There must be lots of malaria around here."

"Mebbe there are, sah, but I haven't seen one as I knows of. Do they walk or fly?"

"Malaria is what breeds chills and fever," explained the Colonel.

"Oh, that's it? Must be round here, then, though we ain't worryin' any."

"But you shouldn't live here in this miasma."

"Dunno what your miasma is, but if she tackles this family she'll git the worst of it. We ain't takin' a bluff from anything."

"My friend," continued the Colonel as he looked around, "did you ever hear of bacteria?"

"Never, sah. Does he walk or fly?"

"And did you ever hear of a microbe?"

"Never did. Is he on the fight?"

"How on earth can you live here, contiguous to this pestilential morass, with the air weighted down with malaria, is more than I can understand."

The squatter looked up to the man on horseback for a long minute, as if puzzling over the words, and then queried:

"What's 'contiguous' mean?"

"It means alongside of."

"And what's 'pestilential'?"

"Sickness and death."

"And what's a 'morass'?"

"A swamp."

"Look here, stranger," continued the squatter, as he rose up, knocked the fire out of his pipe and looked very serious. "I've lived here all my life, and I've seen a thousand people go 'long this road, but you are the first critter who has gone at it to upset me and make me feel discontented and unhappy."

"I was simply speaking of the situation," explained the Colonel.

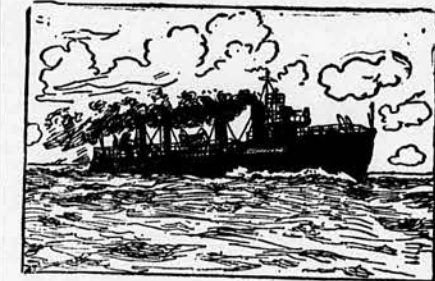
"And so am I, sah, and the situation are just this: You've come along and made up faces at my tadpoles—you've thrown malaria and miasma at me—you've talked of pestilence and morass and microbes and you've jest got me so riled up that I'm bound to say that if you don't want to ask fur a chaw of terbacker or a drink of whisky, or wasn't intendin' to stop and talk politics, you'd better be a-gittin' and keep a-gittin' till you git beyond the next turn in the road. You may pass all right in some parts, but I'm dawgoned if you ain't twice too particular for sich common folks as we are around yere!"—St. Louis Post-Dispatch.

California Jack Rabbits.

The jack rabbits of southern California are the biggest rabbits in existence. They are as fleet as the wind, and one will sit still on its form or by the roadside until you have almost grabbed it by its mule-like ears, but before you can close your fingers on it there will be no rabbit there. If you look, say forty yards ahead, you will see what you

think it another rabbit, humped up in a fluffy bunch, waiting for you in the same way. But it won't be another rabbit. It will be the same one, it having covered all that distance and settled down again before you have hardly missed it from where it sat first.

These big rabbits are as swift and sudden as the fleas that swarm on them as soon as summer comes. The rabbits are fat then, but these fleas are so thick on them, and are so ravenous that they actually reduce the long-eared four-footed jumper to a skeleton by the time the fall rain sets in. If it wasn't for those regular fall rains the fleas would be of great service to us in destroying the rabbit pest, for the rabbits could not withstand the assaults of their insatiable parasites many days longer. But the rains are certain, and they are fatal to the fleas. The water kills the fleas, and the rabbits pitch in again on our vineyards and orchards and grain with sharpened appetites. Notwithstanding the thousands of jack rabbits we slaughter in the spring, enough escape to keep the supply big enough to make it necessary for the slaughter of other thousands the next spring. It is simply impossible to exterminate them, they are such sure and persistent breeders. So we may expect to have the fun of jack rabbit round-ups every year as long as we raise fruit in Fresno county and parts adjacent.—Exchange.



OUR LATEST TORPEDO CRAFT

The old saying, "When in peace prepare for war," is illustrated by the fact that although the war with Spain is over the Navy Department will open bids for the construction of a dozen torpedo-boats and of sixteen "destroyers" of the most improved order. The torpedo-boats will be what might be termed the Porter improved. They will cost about \$175,000, and will have a speed of at least twenty-six knots an hour. The torpedo-boat destroyers are exceptionally fine boats; they may really be said to be Spanish "destroyers" bettered. They will cost about \$295,000. R. G. Skerrett, who gives the details of the plans in Harper's Weekly for August 27, thinks that competition will be lively, and that every shipyard on both coasts is apt to take an active part.

Mothers! Mothers!! Mothers!!!

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

The Woman Who Spends a Penny

for a postal card, or by letter requests us to send her **Our Cloak and Suit Catalogue** for Fall and Winter 1898-99, will receive a copy free. The catalogue is beautifully illustrated, shows the latest styles in Cloaks, Capes and Suits, and quotes **Wholesale Prices to Everybody.** No catalogue sent to residents of Chicago. Originators of the Catalogue Business, **Montgomery Ward & Co., CHICAGO.**

The Young Folks.

AS MOTHER USED TO DO.

He criticised her puddings and he found fault with her cake;
He wished she'd make such biscuit as his mother used to make;
She didn't wash the dishes and she didn't make a stew,
Nor even mend his stockings, as his mother used to do.

His mother had six children, but by night her work was done;
His wife seemed drudging always, yet she only had the one.
His mother always was well dressed, his wife would be so, too,
If only she would manage as his mother used to do.

Ah, well! She was not perfect, though she tried to do her best,
Until at length she thought her time had come to have a rest;
So when one day he went the same old rigmarole all through,
She turned and boxed his ears just as his mother used to do.

Written for Kansas Farmer.

YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 40.

LUTHERLAND.

At Heidelberg we were distant from Berlin about three hundred and twenty-five miles, and it was the farthest point from our starting place that we reached on our trip. Late in the evening of June 23d we were again in Frankfurt; and on the morning of the 24th we had an early excursion through the city on our bicycles, making it a sort of farewell call on southwestern Germany.

We now looked toward the northeast and directed our course through Lutherland—by which I mean that portion of Germany where Dr. Luther passed his boyhood, and where the greater number of years of his active life were spent.

We could have enjoyed the whole journey homeward on our wheels, but we had already been away from our temporary home for twelve days and could not spare the time which it would require.

Shortly after breakfast we took the train for a ninety-mile ride through southern Hessen-Nassau toward the Thuringenwald.

The scenery along the route was beautiful and the weather most delightful for sight-seeing. The railway passes through a valley formed by the Rhon mountains on our left and the Rhon mountains on our right; but such mountains in America we would only consider hills.

The principal town we passed through was Fulda, and we would much have liked to wheel all through it, but we had concluded we could not examine all of Germany, anyway, and must make our stopping points farther apart.

It was within one hour of noon when we reached the northwestern border of the Thuringian forest, in the province of Saxe-Weimer, and after enjoying a half-hour ride westward through the forest, we reached the town of Eisenach, which was to be our next place for inspection.

EISENACH.

As we left the cars at the depot, we noticed that this little town of 25,000 inhabitants was all "geschmueckt" (decorated), and the people all had on their Sunday clothes. We wondered who could have told them we were coming. We, however, soon learned that it was all on account of the Grand Duke, Carl Alexander; that this was his 80th birthday, and the folks were celebrating the fact in good, German, joyous, style. We procured our wheels from the baggage-room and proceeded to assist in the ceremonies to the best of our ability; but we were laboring under one disadvantage—none of our party could drink a bit of beer, so how could we show proper respect to the health of Grosse Herrzog, Carl Alexander?

This city of Eisenach is quite ancient, and historically it is one of the most interesting places in all Europe. It is situated at the northeastern entrance to the Thuringian forest, which is the most beautiful one in Germany. For years it was most intimately associated with the life of Dr. Martin Luther, and memories of this great man can be seen in many places throughout the town.

The first point of interest we noted, after leaving the railway station, was the ancient Nicolai Thor (Nicholas gate), and near it is the Nicolai Kirche, the church of St. Nicholas.

In Karl Platz, in front of St. Nicholas church, is the fine new Luther monument, which was erected in 1895 and dedicated on May 4th of that year, the 374th anniversary of Luther's arrival at the Wartburg.

A short ride further brought us to a beer brewery, which is common enough in Germany, but this one used to be

a Dominican monastery, and in it Martin Luther, when a boy, attended school. Not far off is the Ursula Cotta house, which house and its former occupant are still revered because of the kindness Frau Ursula Cotta showed Luther when he attended school. She gave him a little garret room and some cold victuals occasionally, but that charity has given her fame for nearly five centuries. Opposite the postoffice we saw the handsome bronze statue of Bach, the illustrious music composer, and near by the house in which he was born. The house is marked by a tablet, which informs the traveler that in it Bach was born. It is near this that we saw the "Luther house," occupied long ago by Ursula Cotta, as before related. The lower floor is now occupied as a store and junk shop combined. A very old brick stairway leads up to the second floor, and we read a sign which informed us that if we wanted to see the Luther room, we should "pull this cord." We did so, and soon an old woman, whose appearance, as to age, might have indicated that she was Ursula Cotta herself, appeared, carrying a huge bunch of keys, any one of which was big enough to open a political convention in Kansas. She walked across the hallway and unlocked the door of what looked like a pantry, and motioning, said, "This is Luther's room."

It is about eight feet square and has two little windows, which appear like small port-holes of a steamship.

Here were several of Luther's old books, his table and two chairs. I doubt that they were the genuine articles used by the schoolboy, Luther. Still they answer the purpose just as well. The principal articles, however, were souvenirs for sale. I have no doubt

winding and many pretty foot-paths lead up the hill. We chose the one up the valley formed by the Wartberg and Venusberg. The latter is made famous by Wagner's opera of Tannhauser, which was first sung in the castle of Wartburg. Nearly 700 years ago there was a custom among the poets and singers of Germany to assemble at Wartburg once each year and contest for prizes. These performers were known as Minnesingers. According to Wagner, Tannhauser came once and obtained the annual prize for his excellent singing. Not only the prize for the singing did he receive, but also the love of the beautiful Elizabeth, the niece of the Landgrave Hermann, and they were betrothed to be married at the next annual gathering of the Minnesingers. It seems that there was a lady by the name of Venus, who dwelt in a fairy cave on the near by mountain, and when Tannhauser came again she charmed him so completely that when he joined the singing contest at the castle he could only sing of Venus and her charms; whereupon the whole assemblage was horrified and wanted to kill him then and there. Elizabeth interceded and they all finally decided that Tannhauser must go on a pilgrimage to Rome to seek forgiveness; he goes, but in vain; he returns a sinner unforgiven; he returns to the Venusberg and the merry court of the goddess. Tannhauser's friends labor long with him to induce him to abandon Venus and go to the Wartburg, where Elizabeth spends her days and nights praying for her faithless lover. At last he goes with his friends, but arrives only in time for Elizabeth's funeral, for she had died of a broken heart. Tannhauser is then stricken with remorse and falls across



"A mighty fortress is our God."—Dr. Martin Luther.

that the old lady would cheerfully have sold us Luther's table or books, and quite cheaply, too, for she could readily have replaced them ready for the next visitors.

But "sight-seeing" is somewhat like work, and one is apt to get hungry. We found a suitable hotel, had an excellent dinner, and were then ready to inspect the most important castle that central Germany has on exhibition.

THE WARTBURG.

Sometime during the summer of 1070, Louis the Springer, Landgrave of Thuringia, was riding along in the vicinity of Eisenach at the head of his band of soldiers, who were engaged in the useful employment (for those times) of killing people, burning castles, robbing villages, and other cheerful industries. I think his own castle had been robbed by some other baron who was stronger than himself.

Louis noticed a very beautiful hill, which is 565 feet higher than the town of Eisenach, which latter is 712 feet above sea level. It was covered with beautiful trees, and three sides of it were quite steep. It presented itself to Louis as a most desirable location for a castle, and in his enthusiasm he shook his sword at it and shouted:

"Wart, Berg, du solst meine Burgh sein."

This, interpreted into English, would be:

"Wait, hill, you shall become my fortress."

I have read of many miracles, but here was evidence of one as great as was ever performed in Germany. That hill obeyed the man's voice and staid right there until Louis could spare the time to build his stronghold.

The Wartburg stands boldly out on the summit of the hill, which is covered, as to its sides, with beautiful forest trees. The road to it is long and

the bier of Elizabeth and dies to the slow music of the closing strains of Wagner's famous opera.

A half-hour's walk brought us to the summit of the Wartberg and we asked admittance into the castle. We obtained our "billets" at the bridge entrance and then passed over the moat, which is guarded by two very officious-looking soldiers. On the right is the small building known as the "Ritterhaus," originally used by Louis the Springer, but the rest of the huge pile dates from a much later time.

This castle was occupied by the Landgraves of Thuringia until the extinction of the family in 1250, and is now used as one of the summer residences of the Grand Duke of Weimar.

Passing the Ritterhaus (Knight's house) we are led through the watch tower gate leading to the inner court and thence into the main building to the left, which is known as the "Landgrafenhaus."

We were first shown the famous "Saengersaal" (singing hall), where the Minnesingers used to perform and which has been made more famous in the present century by Wagner's opera of Tannhauser. The frescoes represent the "Krieg von Wartburg" (the singers' war). I presume there was dissatisfaction occasionally with the decisions at the singing contest, and that led to war among them. There is another reason for the name, but it would take too long to tell it. A large mural painting by Moritz von Schwind represents the

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event of Tannhauser. The Landgrave Hermann and his niece, Elizabeth, are on the throne, with their court surrounding them, and in the front are the contestants, with the luckless Tannhauser in the center, singing his fateful song.

From the large windows of the room we had a fine view of the valley and the lovely forest beyond. From the windows to the foot of the hill is almost a perpendicular descent of five hundred feet.

From the great hall we passed through the Elizabeth gallery, a corridor with frescoes representing scenes in the life of St. Elizabeth, who used to live in the castle. She was another Elizabeth than the one before mentioned, and I want to tell all about her before I mention the principal individual who made this castle famous, viz., Dr. Martin Luther.

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PLANT BREEDING AT KANSAS AGRICULTURAL COLLEGE.

In company with Col. Guilford Dudley, farmer, miller and banker, of Topeka, the editor last week visited the State Agricultural College, at Manhattan. A most noticeable characteristic of the college is the great number of students swarming the buildings and grounds. Were these hundreds considered without remembering the many more thousands who do not avail themselves of the opportunities provided free for the youths and maidens of the State, it might be assumed that the merits of the Agricultural College were understood and appreciated.

But the visit herein mentioned was to the experiment station rather than to the school. The experiment station has its advantages for the students. Indeed, it is worth a great deal to the young men and the young women of to-day to come into direct contact with the original investigations whereby knowledge, new to mankind, is developed; to be associated with the advancement of the science of agriculture through delving into the secrets of nature and directing her forces to the profit of the husbandman.

The particular line of experimentation in which the visitors were at this time especially interested is that newly instituted for the production of improved breeds of grains and other plants. Reference has been made in former numbers of the *Kansas Farmer* to the successes attained and in view as the result of plant breeding in England; to the valuable changes wrought in the sorghum plant by Mr. A. A. Denton, at Sterling, Kansas, and to the work along the same line by the Chemical department of the experiment station some years ago. Among the newer experiments along this line is the recent work of the South Dakota Experiment Station in breeding wheat in such a way as to increase the yield and improve the quality of grain.

Careful readers of the *Kansas Farmer* will remember that Col. Dudley has given practical attention to the breeding of corn. He has now been engaged in these experiments for two years and has been a diligent student of other men's work in similar lines, so that his views on plant breeding are valuable. This fact was so well appreciated by Prof. Cottrell that he invited Col. Dudley to address the class in agriculture. This brought out a lecture, the main points of which it is hoped will be reduced to writing and given to the readers of the *Kansas Farmer*. It may be remarked here that Col. Dudley is an exceedingly practical man and never does anything which does not pay.

The fact is appreciated by careful observers and thinkers that improvements in the breeds of plants are effected under the same laws of organic life that have become familiar to the breeders of improved live stock. It is becoming daily more evident that the highest success in agriculture will come only to those who avail themselves of the best improved breeds of plants as well as animals. But Dakota wheat is spring wheat, while Kansas wheat is winter wheat. Farmers of the North are to be provided with breeds of spring wheat brought to the highest perfection by their experiment stations. Farmers of Kansas must also be provided with improved breeds of winter wheat or be at a disadvantage

in the competition. Our experiment station has taken up the work with enthusiasm and with the hearty co-operation of the three departments—Agriculture, Botany and Chemistry; while similar work with fruits and vegetables has been entered upon by the Department of Horticulture.

An illustration from the experiments with corn may serve to show some points of the work. The purest varieties of corn were selected and samples were subjected to analysis by the chemist. Variations in the quality were found to be very great, even in a single variety. Selection of seeds was made according to quality. In crossing, the product of seed having a high percentage of protein was crossed with the product of other seed having high percentage of protein. Every breeder of thoroughbred animals knows that from such union there is to be expected progeny with increased percentages of protein. The pedigrees of the plants is as carefully kept as are the pedigrees of highly-bred animals.

Presently the Kansas Experiment Station will, beyond doubt, be in position to furnish to the farmers of Kansas pedigreed seeds, bred to characteristics especially adapted to our conditions and of increased productive power and increased market value.

CELEBRATING A GREAT EVENT.

The Pawnee Historical Society, an excellent organization, with headquarters in Republic county, has done valuable service in gathering and preserving evidence of the location of the principal village of the Pawnee Republic, a branch of the great Pawnee tribe of Indians. In this work the Pawnee Historical Society has had the hearty co-operation of the State Historical Society.

An interesting point in the history of the trans-Mississippi country is the fact that on the 29th day of September, 1806, the Spanish flag was hauled down and the American flag raised in its stead at the demand of Lieutenant Zebulon M. Pike, of the Regular army. This was not, as has been erroneously stated, the first raising of the stars and stripes in the territory of the great Louisiana Purchase, for both St. Louis and New Orleans had for some time been military posts. Lewis and Clarke had explored the Missouri river and Pike had been over much of the northern part of the Purchase. But this was probably the first formal substitution of the flag of the United States for that of Spain in the territory which is now Kansas, and the Pawnee Historical Society is to be highly commended for the practice it has inaugurated of celebrating the event each year by a great public picnic gathering, at which the stars and stripes are given to the breeze from the ruins of the old Pawnee village. This year the celebration, which takes place to-day, is made the occasion for the appearance of various candidates for office. A most appropriate part will occur between 10 and 11 o'clock, when twenty-nine of our volunteer boys in their United States uniforms, acting as Lieut. Pike and his little band, will appear, haul down the Spanish flag and run up the stars and stripes.

There is no subject more interesting than the history of the recent past. In the brief period covered by this century the race of red men has rapidly disappeared from the lands they had possessed for unknown ages. Not less remarkable has been the disappearance of Spanish authority and influence from the continent discovered by Spain. One of the typical historic acts in the tragedy of the red man and the tragedy of the Spaniard was that commemorated to-day on the historic ground on which the event transpired. Historic paintings are greatly prized. What a subject for such a painting is presented in the graphic account given in Pike's report. The artist who shall adequately place upon canvas the scene will have a picture which may well be a central attraction at the proposed centennial celebration of the Louisiana Purchase.

In his notes Pike wrote under date September 29, 1806:

"Held our grand council with the Pawnees, at which were present not less than four hundred warriors. The circumstances of which are extremely interesting."

"The notes I took at my grand council held with the Pawnee nation were seized by the Spanish Governor, together with all my speeches to the different nations. But it may be interesting to observe here (in case they should never be returned) that the Spaniards had left several of their flags in the village, one of which was unfurled at the chief's door the day of the grand council; and amongst the various demands and charges I made was that the said flag should be delivered to

me, and one of the United States flags be received and hoisted in its place. This probably was carrying the pride of nations a little too far, as there had so lately been a large force of Spanish cavalry at the village, which had made a great impression on the minds of the young men, as to their power, consequence, etc., which my appearance with twenty infantry was by no means calculated to remove. After the chiefs had replied to various parts of my discourse, but were silent as to the flag, I again reiterated the demand for the flag, adding that it was impossible for the nation to have two fathers; that they must either be the children of the Spaniards or acknowledge their American father. After a silence of some time, an old man rose, went to the door, and took down the Spanish flag, and brought it and laid it at my feet, and then received the American flag, and elevated it on the staff, which had lately borne the flag of his Catholic majesty."

TILLAGE FOR WHEAT.

Editor *Kansas Farmer*:—I have read Mr. Hilton's article with great interest, and can heartily join in his recommendation of how to prepare fall plowing for wheat. Instead of using a disc at right angles I am using an old disc frame on which I have replaced the discs with press wheels from a Buckeye press drill. Have weighted this imitation of the Campbell sub-surface packer down with some heavy irons, so as to make a load for four horses. After a good rain I give it another packing, after which the ground is in shape to receive the grain in due time. I omit harrowing, as we dare not pulverize the soil too much here in western Kansas, for fear of heavy wind storms, which drift such soil off the land, injuring and sometimes ruining the wheat over a great extent of land.

We are not able to raise clover here, and therefore have no clover sod to plow under, but, instead, practice summer fallowing, whereby I can turn under a good growth of green weeds, some of which, no doubt, have stored nitrogen in the soil, as the next crop raised on such land has always done exceedingly well with me, and never failed to make up for the year it lost by being summer fallowed. Farmers of western Kansas, if you have any land that is foul with obnoxious weeds, try summer fallowing. Plow it twice; plow it good and deep the second time. Don't let any weeds grow on it. Pack it a few times during summer. If you have nothing else at hand, use a disc set straight, and weight it down. In the fall you will have an ideal field to sow to fall wheat, and when harvest comes you will not have to be ashamed of it; on the contrary, it will encourage you and your neighbors to practice it more and more.

I have now a field of thirty-five acres which I treated in this manner, and in digging down in it I found to my great satisfaction that I have now stored up in said land moisture to a depth of thirty inches, while other land has only ten inches of moisture, which it received the last few days through three inches of rainfall.

I have now 700 acres under cultivation, but shall not seed more than 400 acres to wheat, in order to get the balance in as good a state of cultivation as I know how, and while I am farming on a large scale, I still lay more value on a big yield per acre than on great breadth, because only thus wheat-raising will be profitable, especially when harvest wages are as high as they have been this last season, and wheat only 45 cents per bushel. But still, western Kansas is the poor man's country. We have no cause to complain and no desire to go back East to our wife's folks. G. R. WERNER.

Colby, Kas.

MR. HILTON'S COMMENTS.

Mr. Werner's very interesting letter, describing the method of soil preparation and wheat-growing he has found most profitable on the "plains marl" of northwest Kansas, brings to the attention of Kansas farmers three things, applicable to any section, that are very important:

1. That, in order to rot weeds, the soil must be pressed around them after they are turned under, and, in order to get a good seed-bed for wheat, the cavities must all be pressed or worked out of the soil and the soil so pulverized that the soil particles can take a close, uniform arrangement. In this condition the soil holds the moisture more tenaciously and more abundantly. The plains marl or any of our sandy soils will stand more and need more packing than the fine-textured shale soils of the uplands of eastern Kansas. On the sandy soils the wheels of a press drill are undoubtedly better for packing than the disc, but

where the plowing is deep, and a heavy growth of weeds or trash is being turned under, if the disc is weighted and used first it will pack the deepest part of the furrow better, and, by cutting the furrows, will enable the drill wheels to bring a more equable pressure on all parts of the soil, thus enabling these wheels to do better work. In the shallower plowing the drill wheels will do the work satisfactorily without the disc, provided the furrow crushes readily.

2. That weeds are not an unmixed evil if rightly used. Weeds on the wheat stubble take up available nitrogen that might be otherwise wasted, and at the same time furnish a cover for the soil. They serve the same purpose in a summer fallow, and I suspect the greatest virtue in Mr. Werner's summer fallow comes from his weeds turned under and so treated as to insure early decay. Weeds in their growth on ground not occupied by a crop may save some of the nitrogen which cultivation has rendered available, by taking it up in their growth and thus preserving for the next crop what otherwise might have been wasted, but weeds neither add to the soil nor return to the soil anything but what they took out of it. Only leguminous plants do that. [There are some legumes among the weeds.—Editor.] They have this beneficial effect, however: In their decay they furnish humus to the soil, which improves its mechanical condition and makes it more loamy. Humus increases the power of the soil to resist the influences of dry weather and the consequent rapid evaporation. It also enables the soil to retain a higher percentage of water in a given bulk, and under these more favorable conditions to render available the mineral and organic elements of fertility already in the soil. Mr. Werner is evidently an observant as well as a progressive farmer. If weeds are a good thing in his summer fallow, why would not the soy bean or some hardy variety of the cow pea be a better thing. The soy bean will stand dry weather as well as Kaffir corn and sorghum, and a good many people in Kansas are anxious to see a wide-awake farmer, like Mr. Werner, test it on the plains marl of Thomas county, following a plan something like this: Sow one bushel of soy beans in spring of 1899, inoculating the soil used with a small quantity of soil obtained from the State experiment farm, at Manhattan, that is already infected with the soy bean bacteria. Cultivate in drills for the seed only. Plant all that is harvested in 1899 in the spring of 1900, and cultivate again for seed only, inoculating the soil from the ground used to grow the crop in 1899. When the crop of 1900 is harvested there should be a supply of seed to be used for summer fallow besides that necessary to maintain the seed supply of future years. In 1901, plow in May, after spring weeds have come up, thoroughly packing each day's plowing on the same day, and broadcast or drill in soy beans. Turn this crop under before seed matures, with all the weeds that come up with it, plowing deep and following immediately, first with the disc with axle straight and then with the improvised sub-surface packer. Between time of plowing and seeding harrow after rains to restore the "dry earth mulch." The soy bean not only furnishes humus to the soil, but while growing the tubercles attached to its roots are gathering nitrogen from the air to add to the supply in the soil. This plant adds to the stock of nitrogen in the soil. When some other crop, as corn, sorghum or Kaffir, is grown in rotation with wheat the soy beans can be sown immediately after the wheat harvest and plowed under in the fall to nourish the crop planted the following spring, and the wheat drilled in between the corn rows in the autumn. This plan gives a better cover during July and August than under the fallow system but a stand is not so sure.

3. Mr. Werner emphasizes one important point that every farmer should ponder over: In order to grow profitable crops, or rather to produce a bushel of wheat at less cost, we must increase the labor on each acre. The time is passed when one man can work 200 acres profitably, taken one year with another.

A. W. Smith, who has made a tour of the State collecting fruit for the Kansas horticultural exhibit at Omaha, says that the finest orchard he has ever seen in Kansas or elsewhere is owned by S. S. Dickinson, one and one-half miles south of Larned, in Pawnee county, about 250 miles west of the Missouri State line. It is in a sandy bend of the Arkansas river, on ground so low that its owner is compelled to build levees to protect it from being flooded by overflow in times of high water. It consists of twenty-five acres, of all the best va-

rieties, and the trees are now in perfect condition and about fifteen years old. Mr. Dickinson keeps this orchard very carefully cultivated and raises large quantities of the smaller crops between the rows of trees. While the ordinary orchard has no apples of any value this year Mr. Smith says this one is yielding a good crop, and he obtained from it fruit which is the equal of any to be seen on exhibition at Omaha. This orchard is so situated with reference to the underflow of the Arkansas that the roots of the trees are always in moist soil.

Second Growth Sorghum.

Editor Kansas Farmer:—I have got a few acres of second-growth sorghum, about a foot and half to two feet high. Is it dangerous to turn cattle and horses into it, or would it do to cut and cure in shock?

S. S. MORINE.

McPherson, Kas.

Second-growth sorghum has been pastured without harmful results. In other cases animals have died within a few minutes after they commenced eating it. The peculiar conditions which make it a deadly poison in some cases, and a valuable, nutritious feed in others, have not been made out. It was at one time thought that only frost-bitten cane was dangerous. Later reports have shown that fatal results have occurred from feeding on cane which had never been frost-bitten. The writer does not remember to have heard of any harm to stock from eating sorghum hay, whether made from the first or the second growth.

Kansas Hard Winter Wheat to the Front.

The business of making hard spring wheat flour from winter wheat appears to be expanding rapidly. Last year quite a number of Minneapolis and other Northwestern mills made free use of Kansas hard wheat, and, evidently, with such satisfactory results that the traffic has shown considerable increase this year. This state of affairs is proved to exist by the fact of heavier Northern shipments of Kansas hard wheat than last year, and is emphasized by the fact that the leading milling firm in the Northwest is making it a point to assure customers that only spring wheat is used in their mills.

In view of the fact that Northwestern millers have so long claimed superiority for spring wheat it seems strange that they will risk their reputations by making spring wheat flour out of winter wheat, and what is stranger still, if the wheat product of Kansas is so much inferior to that of Minnesota and the Dakotas, is that flour buyers do not reject the Kansas wheat product of Northwestern mills and demand the real spring wheat product instead. Indeed, the fact that the trade accepts the one for the other indicates that one is fully as good as the other, while the fact that the one is substituted for the other would indicate that the millers who do so regard the substitute as the best of the two. Buyers should make a note of this.—Modern Miller.

The Bag Worm.

Prof. Faville—Dear Sir:—Thinking you and the Kansas people in general might be interested in a certain bug or larva that is (to a limited extent) destroying arbor vitae trees in this county, I send you a sample. I removed from one tree about 200 insects in the larval stage, and yet a neighbor told me that he had ten to my one. Please answer, through Kansas Farmer, how best to destroy these insects.

W. B. WALTON.

Arkansas City, Kas.

Answer.—The specimens received are the larvae of the "bag-worm" (*Thyridopteryx ephemeraefomis*). It attacks a number of shrubs and trees, and may be found occasionally attacking orchard trees, but to no great extent in this State. This insect has been quite noticeable in Kansas during the past year, feeding upon the red cedar and arbor vitae. It is probably more injurious to this latter class of trees than to deciduous trees, which are more able to endure the loss of foliage.

During the winter months the cone-shaped bags may be found hanging to twigs and branches. These silken bags vary from less than an inch to an inch and a quarter in length and are studded here and there with bits of sticks and leaves. When cut open the smaller bags are found to contain an empty pupa shell, while the larger ones contain a mass of eggs. These eggs hatch in the spring and the larvae pass out through the mouth of the bag, feed upon the leaves, and construct a case for the protection of their bodies. As the larva grows it necessarily increases its case, which becomes more difficult to carry

about. It then temporarily fastens its case by means of silken threads to twigs. In the early autumn the larva becomes full-grown. It then fastens the bag to some suitable twig or object in a sheltered place near by and passes into the pupal stage within the bag. In about three weeks the adult emerges.

The male adult is winged, while the female is wingless; the former flies to the bag occupied by the female, where copulation takes place without the female leaving the bag. After the bag has been nearly filled with eggs the female withdraws through the opening at the lower end and drops exhausted to the ground, where she soon perishes.

In combating the "bag-worm" effective preventive work can be done by collecting and destroying the bags during the fall or winter, when they are easily discernible. If, through neglect or failure to detect them, the bags are not then collected, spraying the trees in early spring with Paris green at the rate of one pound to 150 gallons of water and one pound of lime will destroy the young larvae. E. E. FAVILLE.
Kansas Experiment Station.

Shawnee County Horticultural Society.

The next regular monthly meeting of this society will take place at A. B. Smith's, Avondale, three miles south of Topeka, Friday, October 6. Bring baskets of lunch. The following is the program: "Nuts and Nut Culture," by T.

W. Harrison; "Country Boy and His Sister," by J. W. Stout; "Is Horticulture Worthy of Greater State Encouragement?" by William H. Barnes; "My Flower Garden," by Mrs. Sara E. Roby. From Topeka take the Pauline road south to Jordan's school, then turn east. B. B. SMYTH, Sec'y.

A. B. SMITH, Pres.

Big Machinery Sales This Year.

A gentleman who travels for one of the leading harvester manufacturing firms, made the following statement to a Farmer representative, last week:

"This has been the banner year for the harvester trade in Kansas, for our machines, at least, and I think the other companies have had an unusual trade also; and Kansas is always our very best territory.

"Our company placed 4,000 corn harvesters on the market this year, and 2,000 of them were sold in Kansas and Oklahoma. Nearly all of the 2,000, of course, went to the Kansas farmers. A single ranch in Ellsworth county bought twelve, which is the largest number ever sold for use on one ranch or farm.

"Our local agent at Salina sold 150 self-binders for small grain. This, I believe, is the highest number ever sold from one store."

The United States ought to be too proud and dignified in its conscious strength to brag about licking such a weak, measly nation as Spain.

Twenty Funny Stories of MARK TWAIN

They relate to Mark Twain's eccentricities, and his aptness in making the most ordinary episodes appear ludicrous. The stories are brimful of fun.

When I Stood Face to Face With Death

General A. W. Greely, the great Arctic explorer, tells here, for the first time in print, the graphic story of his fearful exile of 278 days at the North Pole, when his comrades daily dropped dead at his side, and when all waited day by day for death to come.

Miss Wilkins in Her New England Home

An entire photographic page will show the author of "Jerome" and "Pembroke" as she is at home: her friends as they grouped around her; going out to walk with her dog; with her favorite cat; and in an evening gown ready for a reception.

John Wanamaker's Sunday-School

The Most Interesting Sunday-School in America

How it has grown to be a factor in a city's life, together with the wonderful man who has devoted his energies to its development. Illustrated.

These are Some of the Special Features in the October Number of

THE LADIES' HOME JOURNAL

We will mail *The Ladies' Home Journal* from now until January 1, 1899, and *The Saturday Evening Post*, every week from now until the end of the year, on receipt of only Twenty-five Cents.

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THE SATURDAY EVENING POST

Was established in 1728 by Benjamin Franklin. It is handsomely illustrated and gives weekly the best serials, short stories and sketches the world can produce. The regular subscription price is \$2.50 per year. Both our publications, balance of the year as an introduction, for only Twenty-five Cents.

The Family Doctor.

Conducted by HENRY W. ROBY, M. D., consulting and operating surgeon, Topeka, Kas., to whom all correspondence relating to this department should be addressed. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

Bed Sores.

Dear Family Doctor:—What can one do to prevent bed sores, when compelled to lie directly on the back all this long hot summer? M. E. B.

Forest Home, Kas.

Bathe the back several times a day with dilute alcohol or brandy, not strong enough to smart more than a minute or two. Then stretch a piece of linen smoothly over the back and have it held snugly in position, and with the bare hand rub over the sore and surrounding parts gently ten to fifteen minutes two or three times a day. Then a soft large pad of surgical wool should be made, twelve to sixteen inches across and two or three inches thick, with a hole in the center a little larger than the sore, and place that under the back, so the sore will come directly over the opening in the pad. That used a good part of the time will relieve the sore from pressure and promote rest and better circulation in the sore. Sometimes a pad of surgeon's adhesive plaster will be worn with comfort over the sore and extending three or four inches beyond it each way.

Horticulture.

THE STORAGE OF FRUIT.

E. S. Whittemore, of Massachusetts, in a carefully-prepared paper, says:

"The first great essential of fruit preservation of any kind is pure air under conditions of temperature and light which arrest vegetable growth and decay. With orchard fruits of temperate climates, the temperature should be as low as possible short of freezing; but with grapes or other tropical fruits, so low a temperature is not necessary and it may be injurious, 35° to 38° F. being better than any lower degree of temperature. In some periods of summer, if the fruit has previously been exposed to high temperatures, it may be better to maintain them at about 40°. But as a rule, if the natural atmosphere of a dry winter day could be secured and maintained in any storehouse from which the light can be excluded, with a temperature of from 34° to 36°, every process of ripening and decay would be arrested in the fruits which we ordinarily wish to preserve, and would remain in abeyance for an indefinite period.

"It is absolutely necessary even at this low temperature to have the fruits surrounded by pure air. No gases or mixtures of gases with atmospheric air, will permit living organisms to remain in health. The presence of carbon dioxide will destroy plants and vegetable tissues in a dry winter atmosphere without regard to the fact that the sap may be dormant and no growth may be in progress.

"Carbon dioxide gas will destroy the life of a hibernating animal; and while the demand of the animal for oxygen may be greater, it is not less absolutely necessary in preservation of fruit. It is not a demand caused so much by change in progress, as by the necessity for its presence as a means of preventing decomposition and decay. It has been assumed that oxygen is an agency of decay. No assumption can be more erroneous. The oxygen of the atmosphere becomes an agency of decay only when, in the absence of any injury to the tissues, all the natural changes of the plant or its fruit are complete, and the fully ripe condition is succeeded by natural decay. This change takes place but rarely only at high temperatures and is greatly reduced by low temperatures. The conditions that favor or arrest plant growth are the same as favor or arrest the decay of fruit or vegetables.

"At ordinary temperatures the changes which take place in the decomposition of fruits and vegetables are active, and various gases are generated. In a closed room or storehouse these gases soon change the air very sensibly and render it an agent of further decay. The presence of moisture in excess rapidly advances these changes and very soon develops a great number of fungous growths in the form of mold, slime and perceptible decay. All these become impurities of the air, and none of them could exist if the air starting at a low temperature, was kept cold and pure, with all sensible moisture and all gases removed as soon as they were discovered to be present.

"The first gas generated in any considerable quantity in a closed warehouse is carbonic acid gas. The action of the air on any substance subject to decay causes the formation of this gas. The consequence is that it is the first impurity found in the air of any dark storehouse. Even in the low temperature of the ice house it is desirable to remove it as soon as possible. The effect of trying to keep fruit in this gas, if the temperature is high, is a rapid shrinking of the skin of the fruit, and finally a softening and disorganizing of the entire fruit; the peculiar flavor and aroma all being destroyed.

"The same results ensue from the presence of an atmosphere of carbon dioxide at a low temperature, only the decomposition takes place more slowly. Fruits of any kind kept in a room or vault in which it is difficult to keep a candle burning will change in a manner similar to the action of a frost, the skin and pulp becoming soft, slimy and tasteless. In many cases these effects are not apparent until the fruit is removed to the open air, when they immediately develop.

"Carbon dioxide acts as poison to plants when it exceeds one-twelfth of the atmospheric air. It is evident, therefore, that this most dangerous gas must be removed as soon as discovered.

"The following table will give the best temperature for the storage of some of our most common produce. It will be noticed that the prevalent idea that the freezing point must be reached is not adhered to. On the contrary, it has been found from experience that the following

are the most satisfactory temperatures, Fahrenheit:

	Degrees.
Apples	30 to 45
Berries	36 to 40
Celery	35
Cranberries	34 to 38
Peaches	45 to 55
Pears	36
Onions	34 to 40
Potatoes	36 to 40
Asparagus	34
Cabbage	34
Maple sugar and sirup	40 to 45
Flour and meal	40 to 45
Brined meats	35 to 40
Dried beef	36 to 45
Fresh beef	37 to 39
Ham, ribs and shoulder	30 to 35
Eggs	33 to 35
Lard	34 to 45
Mutton	32 to 46
Veal	33 to 36
Grapes	36 to 38

Butter should be given a separate room with temperature at 22 degrees.

Winter Treatment of Fruit Seeds.

Editor Kansas Farmer:—September is a favorable month for saving fruit seeds for future planting. Seeds taken at this time do not dry out nor deteriorate from the effects of the heat as do those saved earlier in the season. Many of the hardy and rugged varieties of fruit ripen in this period. The saving of seeds and their preservation over winter are not difficult problems and are, no doubt, very generally understood. But the neglect or oversight of a single point is likely to materially decrease the success of the result. For this reason it is desirable to clearly understand the matter.

PEACH.

The peach is generally propagated by budding, the stocks being seedlings grown from pits saved from the previous crop. The best peach seeds are those obtained from seedling or "natural" fruit. Seeds from budded or grafted fruit are of less vitality, though often larger, brighter and more handsome in appearance. They should not be used if seeds from seedling fruit can be obtained. The seeds should be taken from mature fruit of vigorous, healthy trees. Instead of being satisfied with inferior quality, take the best. The stock that is accepted at this time is to govern to a large extent the vitality of the future tree and it pays to get the best. Above all, avoid seeds of diseased stock. Before the seeds are thoroughly dry they should be mixed or stratified in earth or sand for keeping until the following spring.

Several methods of stratification are practiced. The seeds may be spread on the ground and spaded in; they may be spread in a layer and covered with earth or leaves, several layers sometimes being spread, one above another. They may also be placed in alternate layers of sand in shallow boxes or pits sunk in the ground. The last is probably the most satisfactory method of the three. But under the conditions prevailing on the farm, fall planting is often preferable to them all. It does away with the second handling in the spring, when it is important to save time. If fall planting is to be done, prepare the soil by plowing deep and pulverizing thoroughly; lay off the rows three and one-half to four feet apart; plant the seeds two and one-half inches deep and three inches apart in the row. Being at even depth, the seeds are equally affected by the weather and are likely to come up evenly in the spring. Firm the earth over the seeds but leave a covering of loose dirt on the surface and protect it from blowing or washing during the winter by a slight mulch of brush or leaves.

PLUM.

The plum is worked upon the peach and upon several different stocks of its own. Peach is well adapted to light soils. The Myrobalan, the Mariana and the common wild plum of the North are in extensive use as stocks. In the South and West the Mariana plum gives the most general satisfaction. It is propagated either by cuttings or seeds. If cuttings are used, they are to be made in the winter and stored in a cool, dark, moist place till the following spring, when they are set out. Cuttings are objected to by some on the ground that they root poorly and produce a tree that is easily tipped over. If seeds are used in propagating the stock they are to be given the same winter treatment as seeds of the peach.

CHERRY.

Three classes of stocks are in common use for budding cherries—the Mazzard, the Morello and the Mahaleb. The Mazzard and Morello give trees of standard growth, while the Mahaleb has a dwarfing tendency. Seeds may be obtained from reliable seed houses at a reasonable rate, if they cannot be saved at home. They should be from mature fruit, and should be stratified in sand soon after the pulp is removed, as cherry pits should not thoroughly dry out. Place in the coolest available location till

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GOOD painting costs no more than bad painting—in fact, it costs less. Good painting is done with Pure White Lead and Pure Linseed Oil. Bad painting is done with any of the mixtures of Barytes, Zinc, Silica, Whiting, etc., etc., which are often branded and sold as "White Lead," "Pure White Lead," "Tinted Lead," "Colored Lead," etc., etc. You can avoid bad painting by making sure that the brand is right. (See list of brands of White Lead which are genuine).

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winter, then store outside till time for planting in early spring.

APPLE.

Apple stocks are grown from seeds obtained from the waste pulp of cider mills. Such seeds are usually mixed in variety and quality. While it is impossible to sort apple seeds as closely as peach, it should always be remembered that only seeds from mature fruit can be expected to give healthy, vigorous sprouts. Windfalls of immature fruit should never be taken. Stratification soon after the pulp is obtained and before it is dry is the best method. In case the seeds dry out they should be dipped in water several times, allowing the water to drain off slowly after each dipping. Apple seeds may be planted in the fall in loose, loamy, well-drained soil. The seeds should not be planted deep and should be covered with a light mulch during the winter. They should also be kept free from weeds the following spring.

One of the strongest objections to fall planting of any seeds that are to germinate in the spring is that when the spring season comes weeds are sure to get the earliest start, and, without the closest attention, will choke out the young seedling as soon as they have germinated. However, in fruit propagation, as in fruit-growing, we must learn to give careful attention to every step of the process, remembering that it is only when such attention is given that we can hope for the best results.

W. L. HALL.

Experiment Station, Manhattan, Kas.

Kieffer Pears.

Editor Kansas Farmer:—Can you or any of your readers tell me what Kieffer pears are fit for? Do they make good hog feed, or have I got the wrong sow by the ear, and not the right kind of "Kieffers?" About twelve years ago a fruit tree agent came along with what, to me, was a new pear, the "Kieffer." He made great claims for it; said it was rust-proof, blight-proof and cholera-proof. The agent was right, as the trees never had hog cholera or any other disease, but grew and flourished and bore fruit, or some kind of a vegetable, I never could tell which. One season we kept some of them till January, waiting for them to get mellow. Then, with the aid of the old cob-handle butcher knife, the hatchet and rip-saw, we carved one. It had about as much taste to it as a green pawpaw, with the difference in favor of the green pawpaw. I just happened to think maybe the Kieffers are a vegetable and we don't know how to cook 'em. If so, please let me know; and maybe there are others (fools) that want to know about this thing. Where there is one there is generally a pair, and often many of us. M. F. TATMAN.
Rossville, Kas.

International Horticultural Exposition.

The United States Department of Agriculture has received through the Department of State a communication from Count Cassini, Russian Ambassador, stating that the Imperial Russian Horticultural Society will hold an International Horticultural Exposition at St. Petersburg in May, 1899. The United States is invited to take part in the Exposition by sending exhibits and special commissioners to prepare the American section. Exhibits of foreign exhibitors duly accredited will not be subject to customs' inspection at the Russian frontier.

Privy Counsellor Fischer von Waldheim, Director of the Imperial Botanical Garden at St. Petersburg, has charge

of the foreign sections of the Exposition with the functions of president, and all inquiries relative to the Exposition should be addressed to him.

The Combination Oil Cure for Cancer

Has the endorsement of the highest medical authority in the world. It would seem strange indeed if persons afflicted with cancers and tumors, after knowing the facts, would resort to the dreaded knife and burning plaster, which have hitherto been attended with such fatal results. The fact that in the last six years over one hundred doctors have put themselves under this mild treatment shows their confidence in the new method of treating those horrible diseases. Persons afflicted will do well to send for free book giving particulars and prices of Oil. Address Dr. Bye, Box 464, Kansas City, Mo.

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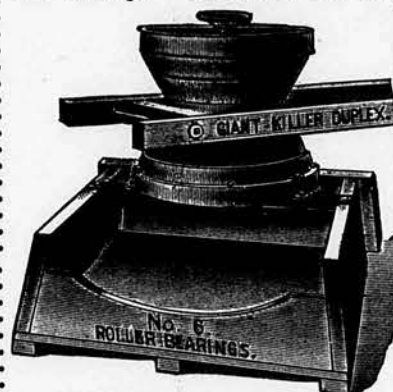
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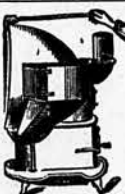
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In the Dairy.

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

Gas in Cheese.

The Manhattan cheese factory has been having trouble from gas and foul odor in its cheese curd. The gas would not only push the curd out of the press, but would leave it full of holes. These holes are caused by the presence of gas, which in turn is produced by the action of certain bacteria.

The Farm department of the Agricultural College was asked to investigate the trouble and if possible discover its source. A small sample of each patron's milk was placed in a tumbler and subjected to the Wisconsin curd test. This consists of heating the milk up to 98° F., adding about ten drops of rennet extract to each sample, cutting up the curd with a knife to leave the whey out, and then allowing the curd to ferment from six to twelve hours. Examination of these small curds revealed the fact that two patrons were delivering milk that contained these gas-producing germs in very considerable quantity. Another curd contained but little gas but had a very foul odor; in fact, was filthy. When the milk of these patrons was refused the gas ceased to be produced in the cheese.

While testing the milk for gas, another test was made by heating a sample of each patron's milk up to 115° F., to see the character of odor given off. Two samples had a very rank smell, doubtless due to the presence of animal odor and from the milk absorbing odors from filthy surroundings. One of these had a gassy curd in the previous test. Two other samples had a little peculiar odor that, it was thought, might be due to the cows eating some objectionable plant, as Osage orange or rag-weed.

Both of the above tests show very clearly the need of more care in the handling of milk. Animal odor can be removed by aerating the milk soon after milking, while it is still warm, and filthy surroundings should not be tolerated under any circumstances.

Gas-producing germs are rather common, and it is sometimes difficult to say just how they obtain entrance to the milk. Two of the most common sources of infection are from the cows drinking water from stagnant ponds or creeks, and from fermenting matter in the stable. The presence of these germs cannot be readily detected in the milk. It often happens that they are not noticed until the curd is ready to go to press, or even after it is put to press. Their presence is first observed by the curd having an appearance as if it had been finely-punctured with a pin. If the fermentation goes on it may cause the cheese to smell or "huff," and this fermentation may be so energetic as to cause the cheese to crack, due to the pressure of the enclosed gas. On account of the difficulty of detection and of the injurious effects of these germs, it should be the duty of every patron to inspect his premises and remove every source of infection, whether it be the water, the feed, or the surroundings. D. H. O.

Is the Hereford a Town Cow?

A correspondent from Nevada, Mo., sends the following clipping from his daily paper, and adds that he always considered the Jersey a town cow:

"Captain A. Cummins, who has just returned from a trip advertising the Vernon County fair in the southeast part of Vernon and the western half of Cedar county, Missouri, says: 'The majority of stock exhibits will be good with the exception of cattle. The cattle interest needs encouragement. The towns generally, and some of the farmers, have gone off after the Jersey breed. This in my judgment is a great mistake. The Jerseys will produce milk and butter all right, but they are failures, as every one knows, for beef. A thoroughbred Short-horn or Hereford cow can be bought as cheaply as a Jersey and will give as much milk and make as much butter. Her progeny, if thoroughbred, will be worth three times that of the Jersey, whether male or female. If the town people will discard the Jersey and take up the thoroughbred Hereford or Short-horn and raise thoroughbreds, it will pay them far better, besides they will greatly facilitate the improvement of the cattle of the country, for every thoroughbred calf will be taken by the farmers at good paying prices. Such a course, in a few years, will make Vernon county one of the best cattle counties in the State, and both the town people and the country

people will have helped each other and profited largely thereby.'"

This is the first instance that we have ever heard of the Hereford being brought forward as a town or milch cow. Undoubtedly there are good milkers in the breed, as there are in all breeds, but the Herefords, as a breed, are practically worthless for milk production. So poor are they as milkers that many of them do not furnish milk enough for their calves, and our best breeders are obliged to overcome this deficiency by keeping nurse cows with which to raise the calves.

Doubtless there are many Short-horns that are good milkers, and some of them would make excellent family cows. It should be borne in mind, however, that with these large cows the feed bill will be higher. Many town people care nothing about producing beef and would not know how to fatten a cow if they did. All they want is a cow that will produce milk for cooking and good, rich cream for the table. For this purpose no cow will fill the bill any better than the Jersey or Guernsey.

For the maximum profit, taking into account milk and beef and calf, we know of no trials that have been made under the conditions met with by our average town cow, where she is often driven several miles to pasture by boys who know or care to know but little about cow machinery. If any of our readers have had experience along this line we shall be glad to hear from them.

Income May Not Mean Profit.

A reader of the Kansas Farmer writes the following: "We notice in your issue of September 8, that Mr. D. Uber, of Lyndon, Kas., milked six cows last year, from which he received \$177.51 for butter fat, and \$108 from sale of calves, making a total of \$285.51. Now, while we do not dispute the above figures, we claim he has not stated all the facts, for, in the first place, it will cost in labor at least four hours per day to care for six cows and deliver butter fat. At four hours per day, 365 days equals 1,460 hours; at ten hours per day, equals 146 days or \$146; cost of corn, \$36, clover hay \$27, pasture \$24, value of six cows \$210, interest on \$210 at 7 per cent. \$14.70, taxes \$6, wear and tear on cows, harness and vehicles \$5. Total receipts \$285.51, expense \$258.70, leaving a profit of \$26.81, instead of \$285.51.

"We would like to hear from Mr. Uber farther in regard to expenses. We think it only just to the dairy business to show both sides complete. He does not state the amount of milk sold, nor the amount of butter made, or profit received from milk fed to pigs."

The point our reader raises is one that should be considered by every dairy farmer and creamery patron. However, it should be noted that in the article referred to no claim was made that the total income of \$285.51 was profit. It would be utterly impossible to set up a standard and say that it would require every man just so much time to care for a cow. Men differ fundamentally in the amount of work they can perform and in their ability to manage their affairs so as to accomplish most in the least possible time. Furthermore, the cost of producing grain and roughness would vary with different men, under varying conditions. In the report of the State Board of Agriculture for quarter ending March 31, 1896, the cost of raising corn is reported to vary all the way from \$3.74 to \$8.45 per acre, and this under conditions where the same amount of corn was raised per acre for a period of ten years.

For these reasons, each person that studies the record of another should take the facts and then apply them to meet his own individual conditions, always taking into account the cost of feed, labor, and interest on the money invested.

Doubtless our reader has done this to meet his conditions in the above calculations, and it is of interest to note that after he has deducted for all expense, including labor, there is still a profit of \$26.81. Some business men are thankful if they are paid for their labor, but in this case there is \$4.47 per cow, over and above all expenses, that may be classed as pure profit.

Record from Grade Short-horns.

Mr. A. L. Albright, who sends his milk to the Waterville Creamery Co., Waterville, Kas., gives us a report from his herd of six grade Short-horn cows:

Milk produced during the year 37,848 pounds. Butter fat 1,447.66 pounds, making an average test of 3.82 per cent. The financial account stands as follows:

Amount received from sale of milk.....	\$204.10
Value of calves.....	75.00
Total income from herd.....	\$279.10
This gives an average income per cow	

of \$46.50. The average yield per cow was 6,308 pounds milk and 241 pounds butter fat, equal to 283 pounds butter.

Mr. Albright writes: "My cows come in from the 1st of May to the 1st of September, and are pastured on prairie grass. My grain ration for the winter is one part oats, one part bran, and one part corn. The oats and corn are ground together and the bran added. I feed from seven to ten pounds of this mixture, according to the needs of the cow. For roughness, I feed all the alfalfa hay and corn fodder they will eat up clean."

Butter Test for Guernsey Cattle.

The American Guernsey Cattle Club offer the following premiums for the cows or herds of Guernseys making the three best records for butter fat for one year, under the conditions hereafter named:

For individual cows, \$50, \$30, \$20.
For herds of five cows each, \$100, \$60, \$40.

Each contestant shall be allowed to name seven animals for the herd prize, the results to be determined from the records of the five best animals.

These tests shall be under the supervision of the Executive committee of the American Guernsey Cattle Club. All cows shall be wholly under the control of the owner, so far as feeding and general treatment are concerned.

Each year's test shall commence November 1; the first test commencing November 1, 1898. All animals competing shall be named at least thirty days prior to the opening of each test. The results of each test shall be reported to the annual meeting of the Club, when the prizes will be awarded.

At the end of each month every contestant shall report to the office of the Club upon blanks furnished them for such purpose by said office:

a—A complete record of the weights of each milking.

b—An approximate statement of the amount and kind of food given the animals, and as to the manner of stabling and care of same, including the days of service or when in heat and not served.

About the middle of each month samples shall be taken of the night's and following morning's milk and sent to the Agricultural Experiment Station of the State in which the animal is located, or to such place as may be directed or approved by the Executive committee, these samples to be properly labeled with the date and amount of each milking. The result of such tests to be reported by the tester to the office of the Club.

At such times as the Executive committee supervising said test or tests shall see fit, but at least twice during the year, they shall send any one whom they may deputize to visit the herds from which animals are entered, to weigh and test the milk from cows competing.

The results of each year's tests shall be computed in the following manner: The weights of milk produced each month shall be multiplied by the per cent. of the butter fat as shown by the official test for that month, and the sum of the results thus obtained shall be the year's record.

With the great advance of dairy instruction and the care shown by dairymen in eliminating from their herds all unprofitable animals, it is of great importance to each breeder and to the interests of the breed in general to know as much of the capabilities of the animals as is possible. It is to encourage this work that these inducements are offered, and it is hoped many breeders will avail themselves of them.

The Club will offer \$300 as special premiums of the Trans-Mississippi Exposition at Omaha next month, and a very interesting exhibit is expected.

For further particulars, address W. H. Caldwell, Secretary, Peterboro, N. H.

A strong nation is made up of strong men and healthy women, and health and strength are given by Hood's Sarsaparilla, America's Greatest Medicine. Get only Hood's.

Hood's Pills are the only pills to take with Hood's Sarsaparilla. Easy and yet efficient.

"ALPHA-DE LAVAL" CREAM SEPARATORS.



De Laval Alpha "Baby" Cream Separators were first and have ever been kept best and cheapest. They are guaranteed superior in all imitations and infringements. Endorsed by all authorities. More than 125,000 in use. Sales ten to one of all others combined. All styles and sizes—\$50. to \$225.—Save \$5. to \$10. per cow per year over any setting system, and \$3. to \$5. per cow per year over any imitating separator. New and improved machines for 1898. Send for new Catalogue containing a fund of up-to-date dairy information.

THE DE LAVAL SEPARATOR CO.
RANDOLPH & CANAL STS., CHICAGO. 74 CORTLANDT STREET, NEW YORK.

DR. A. B. SEELYE'S WASATUSA

THE GREAT HEALER

For Internal and External Use.
FOR MAN OR BEAST.

CURES

Rheumatism, Neuralgia, Earache, Toothache, Headache, Gout, Sore Throat, La Grippe, Colic, Cholera Morbus, Diarrhoea and Summer Complaint, Pains in the back by acting on the kidneys, Corns, Bunions, Etc.

EXTERNALLY.

Rub it well on affected parts. In severe cases apply hot cloths well saturated with the Wasatusa over seat of pain.

INTERNALLY.

ADULTS.—15 to 60 drops in 2 tablespoonfuls of hot water or milk as often as necessary until relieved.

CHILDREN.—3 to 15 drops, according to age, every 25 or 30 minutes until relief is obtained.

An excellent remedy for Horses in cases of barbed wire cuts, colic, etc. Dose internally 1 to 3 tablespoonfuls in a cup of warm water, drench.

Price 50c and \$1.00 Per Bottle.

Insist on your druggist getting it.

A. B. SEELYE MEDICINE CO.,
ABILENE, KANSAS.

Ask your grocer for Dr. Seelye's Flavoring Extracts. Triple strength. The best on the market.

STOCK FEEDERS

Listen to this and think before buying a feed grinder. There are over 20,000 **Perkins** Mills now in use. Grinds ear corn and all grains fine or coarse. Make family meal or feed. AGENTS WANTED. Price \$15.00 and \$20.00. Write for circulars and agency. STEVENS MFG. CO., Box 18, Joliet, Ill.

LIGHTNING WELL MACHY IS THE STANDARD

STEAM PUMPS, AIR LIFTS, GASOLINE ENGINES. WRITE FOR CIRCULAR NO. 1. THE AMERICAN WELL WORKS. AURORA, ILL. - CHICAGO - DALLAS, TEX.

ONCE IN A LIFE TIME

is often enough to do some things. It is often enough to buy a wagon if you buy the right kind. The



ELECTRIC HANDY WAGON

lasts that long under ordinary conditions. First the life of a wagon depends upon the wheels. This one is equipped with our Electric Steel Wheels, with straight or stagger spokes and wide tires. Wheels any height from 24 to 60 inches. It lasts because tires can't get loose, no re-setting, hubs can't crack or spokes become loose, felloes can't rot, swell or dry out. Angle steel hounds. THOUSANDS NOW IN DAILY USE. Don't buy a wagon until you get our free book, "Farm Savings." ELECTRIC WHEEL CO., Box 46, Quincy, Ill.



The Improved U. S. Cream Separators

In thoroughness of separation take the lead. In completeness of design and ease of operation excel all others. Are more substantially made and are superior in all points to all others. All Styles and Sizes. \$75.00 to \$625.00. Agents in all dairy sections. Send for latest illustrated catalogues.

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

Publishers' Paragraphs.

It is a wise farmer that knows his own interest. When a farmer knows he can buy his farm implements direct from the manufacturer, at a saving of two profits, he is wise, indeed, who takes advantage of the fact. Elsewhere in this issue appears the announcement of the Hapgood Plow Co., Alton, Ill., who make a thousand things farmers use, list and illustrate them in a fine catalogue, which they send free to all who write. It shows a large saving in cost of the many things a farmer has to have.

Two million ladies in the United States keep birds, and a still larger number are interested in the subject. "Feathered Pets," just issued, is a complete book on this subject. It contains 140 pages, is copiously illustrated and full of information on the care of canaries, parrots and other cage birds. How to tame, train and care for them. How to keep them in good health and cure in case of sickness or accident. How to teach parrots to talk, etc., etc. The subject of breeding canaries profitably and training the voice of the young birds is treated fully. Beautiful colored illustrations of canary and goldfinch. Chas. N. Page, publisher, Des Moines, Iowa.

What is the best dehorner to use? This question has been definitely answered to the satisfaction of every one who has given the improved Convex Dehorner a trial. This instrument is a radical departure, both in shape and working principle, from all other makes of dehorners. It consists of only two castings and one knife. The larger casting forms an open hook that holds the horn. The peculiar shape of the knife gives it a drawing or shearing cut, from one side only, allowing the horn to ease off; this effectually prevents crushing the horn or pulling it apart. The Improved Convex Dehorner is the simplest, strongest, easiest-operated, smoothest-cutting and cheapest horn cutter yet invented. The manufacturers, Webster & Dickinson, Christiansburg, Pa., will send free upon request a book upon the best method of dehorning.

The Phoenix Nursery Company, who commenced the nursery business in 1852, and now occupy 600 acres and thirteen large greenhouses, have decided to abandon the old-time custom of charging purchasers for packing and cartage, and now deliver all goods free at the Bloomington depots. Their illustrated catalogue of fruit and ornamental trees, shrubs, plants, etc., for the garden, farm and home is a charm to the eye, and is sent free, together with their current price list, on receipt of written request. The State Entomologist of Illinois has had the young stock of the Phoenix nurseries carefully examined during September, 1898, and reports the absence of any scale insects that could be transmitted to the injury of customers. Their advertisement appears elsewhere in this issue.

We wish to direct the attention of our readers to the advertisement of Allen L. Wood, of the Woodlawn Nurseries, Rochester, N. Y., which appears in another column of this issue. Mr. Wood is making special mention of his berry plants, of which he claims to be the largest grower in the world. He offers all kinds of berry plants of the leading standard varieties and is in a position to warrant every plant to be absolutely free from disease under the certificate of the New York State Entomologist. The famous Pearl gooseberry, which has stood the test so nobly, and which is so prolific and at the same time free from the ravages of mildew, was introduced by Mr. Wood. Our readers will do well to correspond with this advertiser before making up their fall and spring orders. Please say that you saw the "ad." in the Kansas Farmer.

Few people have any idea of the vast amount of goods that is being shipped by freight, express and mail direct to the farmer and the home, and few people have any idea how easy the great mail-order houses have made buying at wholesale, and how great are the inducements they offer to secure orders. This office is just in receipt of Catalogue No. 107, issued by Sears, Roebuck & Co., of Chicago, a vast department store boiled down, so that you can sit down at your desk or table in your own home, and select just such goods as you want, and everything is made so plain by large, handsome, clear illustrations, plainly written descriptions and prices in plain figures, that every one can order by mail; have the advantage of such a vast variety to select from and such very low prices that it certainly is not strange that these big department stores which issue these big catalogues are attracting the attention of buyers everywhere in every walk of life. Sears, Roebuck & Co.'s Catalogue is certainly a merchan-

dise encyclopedia, a book of 1,120 pages, weighing nearly four pounds, and while it requires 30 cents postage alone to mail it, they send it postpaid to any address on receipt of only 15 cents to help pay the postage. Everything you will find in the largest department stores, everything that is offered for sale in any kind of a store anywhere, is found complete in this catalogue, and so plainly illustrated and described, and priced so low, that it is not strange that people are so anxious to get this book, and that so many send to this house for their goods. We are informed that it requires seventy car-loads of paper to print their fall edition of this catalogue, fifty large printing presses running night and day to print them and \$150,000 in postage stamps to mail them. Only from such stupendous figures can it be comprehended to what extent people everywhere are sending their orders to this house for everything they eat, use or wear.

The fraternal feeling between residents of the North and South, that was interrupted temporarily during the Civil war, has been restored by time, and the growing up of a new generation. The American-Spanish war found the "boys" from the South and North battling side by side in a common cause, brothers again. With the return of peace comes a renewed interest in Southern matters, and the North looks longingly at the material development now awakening in the Southland. The great State of Texas offers amazing opportunities for industrious Northern farmers, stock-raisers and fruit-growers, even in that portion of the State known to be most desirable, not far inland from the great Gulf of Mexico. In our advertising columns in this issue appears a small map of the State of Texas. It tells its own story in a few words, and will doubtless be of interest to many who seek for pastures new for improvement in health or wealth.

MILLS FOR FARM USE.—Our readers will notice the advertisement of Nordyke & Marmon Co., which has been appearing in this paper, of Portable French Buhr Mills. It must be encouraging to this firm, and is an evidence of the quality of the mills which they produce, when it is stated that, so far this year, their sales of these mills to farmers have nearly doubled over the sales in the same period in any previous year, and it is evidence that farmers in general are realizing that for durability, good work and economy, the French Buhr Mill is the mill to use. This company, who are thoroughly reliable in every respect, issue a very fine book on mills which they gladly mail to any inquirer, and which treats of the subject very thoroughly. It has been demonstrated that a good, substantial mill on a farm, which will do family work, as well as grind feed for the stock, is a paying investment to every progressive farmer.

Washburn College, at Topeka, is one of the old and well established schools of Kansas under denominational care. While controlled by a board appointed by Congregational authority, Washburn influences are of such broad and liberal Christian spirit that a Methodist, a Baptist or a Presbyterian may avail himself of the entire course of study without having his religious views interfered with except to strengthen his respect for the opinions of all Christians and to make him more ready to co-operate with all good people in their efforts to better mankind. The course of study is especially strong on the classical and literary side, and devotes such attention to history and the sciences as has characterized the institutions from which have gone out many of the strong men in the councils of the nation to-day. It will be well for the young man or young woman who is seeking an opportunity to acquire an education under pronounced Christian influences to investigate Washburn College, the advertisement of which appears in another column.

More good, healthful, profitable trade can be got out of increasing the purchasing power of our own people than out of annexation of all the semi-barbarians of earth.—Farm, Stock and Home.

Horse Owners! Use

Caustic Balsam
A Safe Speedy and Positive Cure

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



It's easy to haul a big load up a big hill if you grease the wagon wheels with
MICA AXLE GREASE
Get a box and learn why it's the best grease ever put on an axle. Sold everywhere.

THE STRAY LIST.

FOR WEEK ENDING SEPT. 15, 1898.

Barton County—M. B. Fitts, Clerk.
HORSE—Taken up by Eldridge York, in Walnut tp., August 11, 1898, one black gelding, 15½ hands high, weight 1,050 pounds; valued at \$15.
HORSE—By same, one bay gelding, 15 hands high, weight 1,000 pounds, three white feet; valued at \$20.

Coffey County—Dan K. Swearingen, Clerk.
STEER—Taken up by D. H. Toland, in Avon tp., July 1, 1898, one white steer, 2 years old, with pale blue neck, blue spots on body and blue stripes across hip, dehorned; valued at \$10.

FOR WEEK ENDING SEPT. 22, 1898.

Ottawa County—W. M. Trullitt, Clerk.
MARE—Taken up by A. W. Swayze, P. O. Minneapolis, August 22, 1898, one sorrel mare, three white feet, light mane and tail, star in forehead, weight about 800 pounds; valued at \$20.

Crawford County—F. Cunningham, Clerk.
MARE—Taken up by L. C. Brown, in Sheridan tp. (P. O. Cherokee), August 20, 1898, one gray mare, two dark spots on right shoulder; valued at \$15.

FOR WEEK ENDING SEPT. 29, 1898.

Miami County—L. Flanagan, Clerk.
FOUR HEAD CATTLE—Taken up by D. W. Oyster (P. O. Paola), June 10, 1898, one white yearling heifer, white face and seems to be part Hereford. One white yearling heifer with red specks more or less all over. One light-red yearling steer with a few white hairs all over body. All the above cattle on the southwest order. Also one black two-year-old native steer, white star in forehead, some white under belly. None of the above cattle have horns and all of them have hog-rings in the upper part of the ear, and all are branded on the left hip with brand which looks like letter C or V; total value, \$65.40.

Harper County—W. W. Taylor, Clerk.
MARE—Taken up by Elmer D. Oldfather, in Banner tp., September 7, 1898, one roan mare, 14 hands high, left hind foot white, slip in left ear and star in face; valued at \$25.

Sedgwick County—A. M. Denny, Clerk.
MARE—Taken up by John Landwehr, in Sherman tp. (P. O. Andale), September 5, 1898, one light bay mare, 10 years old, star in forehead, weight about 900 pounds; valued at \$15.

LIVE STOCK AUCTIONEERS.

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

G. W. STORRES, AUCTIONEER, BURLINGAME, KAS. THIRTY years' experience. Extensive acquaintance. Correspondence solicited.

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

S. A. SAWYER, FINE STOCK AUCTIONEER—S. Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Compile catalogues. Retained by the City Stock Yards, Denver, Col., to make all their large combination sales of horses and cattle. Have sold for nearly every importer and noted breeder of cattle in America. Auction sales of fine horses a specialty. Large acquaintance in California, New Mexico, Texas and Wyoming Territory, where I have made numerous public sales.

When writing advertisers please mention Kansas Farmer.

CANCER

The following and many other reliable persons testify that I thoroughly cure Cancer without the knife. Hon. E. W. Jackson, president board of education, Lima, Ohio, was cured seven years ago of lip Cancer. Prof. H. McDiarmid, Hiram College, Hiram, Ohio, cured seven years ago of face Cancer. Had undergone several operations before with knife. Address, Dr. C. Weber, 121 W. 9th St., Cincinnati, Ohio, for further particulars and free book.



\$9.50 Buys a High Victor Sewing Machine with full set of attachments. Adapted to light or heavy work. Guaranteed for 10 years. 30 DAYS FREE TRIAL.
\$22.00 Buys a First Victor Sewing Machine with full set of attachments. Guaranteed for 10 years. 30 DAYS FREE TRIAL.
Church or Parlor ORGAN, Guaranteed for 25 yrs. 30 Days Free Trial. Catalogues Free. Address Dept. 725, VICTOR MANUFACTURING CO., 205-207 Fifth Ave., Chicago, Ill.



RESERVALLINE
SAVES THE MEAT.
NO SLIME—NO SKIPPERS.
NO SOUR MEAT. Box, enough for 500 lbs. post-paid, on receipt of 50c. Preservalline Co., 12 Cedar St., N. Y.



OSGOOD 3 Ton \$35
TANDARD SCALES
Full Descriptive Catalogue FREE
OSGOOD SCALE CO., Birmingham, New York.
Good agents wanted in unoccupied territory.

600 ACRES—13 GREENHOUSES.
TREES & PLANTS
We offer a large and fine stock of every description of
FRUIT AND ORNAMENTAL TREES, SHRUBS, ROSES, VINES, SMALL FRUITS, HEDGE PLANTS, FRUIT TREE AND FOREST TREE SEEDLINGS.
Priced Catalogue Mailed Free. Established 1852.
Phoenix Nursery Company,
Successors to Sidney Tuttle & Co.,
Bloomington, - - Illinois.

Publication Notice.

No. 19665.

In the District court of Shawnee county, State of Kansas.

Keturah R. Bailey, plaintiff,

vs.

Samuel G. Bailey, Jr., defendant.

The defendant, Samuel G. Bailey, Jr., will take notice that he has been sued by the plaintiff herein, who filed her petition in the above entitled action, in said court, on the 17th day of September, 1898, and that he must answer said petition on or before the 11th day of November, 1898, or said petition will be taken as true and judgment rendered in said action against him, the said Samuel G. Bailey, Jr., granting plaintiff a divorce from him and restoring to plaintiff, and adjudging plaintiff entitled to hold and enjoy, all of her personal property, and also all of her real estate, described as follows, to-wit: Lot No. one hundred and sixty-three (163) and the north half of lot one hundred and sixty-five (165) on Harrison street, in the city of Topeka, Shawnee county, Kansas; also the north half of the northeast quarter of section No. thirteen (13), in township No. twelve (12), south, of range No. twelve (12) east of the sixth principal meridian, in Wabawsee county, Kansas, free from his control, and awarding to the plaintiff the care, custody and control of the two children, the issue of said marriage, and granting plaintiff all other equitable and proper relief.

Attest: E. M. Cockrell,
[Seal.] Clerk of District Court.

What's the matter with Kansas?

Kansas owns (in round numbers) 900,000 horses and mules, 550,000 milch cows, 1,600,000 other cattle, 2,400,000 swine and 225,000 sheep.

Its Farm Products this year include 150,000,000 bushels of corn, 60,000,000 bushels of wheat and millions upon millions of dollars in value of other grains, fruits, vegetables, etc.

In debts alone it has a shortage.

Send for free copy of "What's the Matter With Kansas?"—a new book of 96 pages of facts.

GENERAL PASSENGER OFFICE.

THE ATCHISON, TOPEKA & SANTA FE RAILWAY,
CHICAGO.

MARKET REPORTS.

Kansas City Live Stock.

Kansas City, Sept. 26.—Cattle—Receipts since Saturday, 11,891; calves, 488; shipped Saturday, 1,661 cattle; 60 calves. The market was slow, but generally steady. Following are to-day's sales.

No.	Ave. Price.	No.	Ave. Price.
56.....	1,231 \$5.00	1.....	1,231 \$5.00
22.....	1,118 4.80	2.....	1,375 4.50
1.....	1,290 4.50	2.....	1,105 4.50

SHIPPING AND DRESSED BEEF STEERS.

No.	Ave. Price.	No.	Ave. Price.
24.....	1,136 4.50	50.....	1,040 \$4.45
42 Tex.....	1,207 4.25	214 stk.....	895 4.10
153 fdr.....	1,057 3.60	268.....	797 3.47½
208 fdr.....	956 3.40	20.....	797 2.75

WESTERN STEERS.

No.	Ave. Price.	No.	Ave. Price.
1.....	470 \$5.00	1.....	890 \$4.50
56.....	771 3.80	1.....	840 3.75
1.....	730 3.50		

NATIVE HEIFERS.

No.	Ave. Price.	No.	Ave. Price.
2.....	1,005 3.75	2.....	1,270 3.50
1.....	1,280 3.25	4.....	1,072 3.15
2.....	1,385 3.00	1.....	1,050 2.75
2.....	895 2.50	1.....	830 2.25

NATIVE COWS.

No.	Ave. Price.	No.	Ave. Price.
3.....	950 \$4.20		
4.....	495 \$5.00	1.....	780 \$4.35
2.....	602 4.30	18.....	701 4.30

Hogs—Receipts since Saturday, 4,409; shipped Saturday, 185. The market was strong on choice lights and weak on others. The following are representative sales:

118.....	141 \$3.90	9.....	160 \$3.87	160.....	172 \$3.82½
75.....	239 3.82½	19.....	181 3.80½	75.....	214 3.80
80.....	209 3.80	79.....	243 3.80	68.....	233 3.80
88.....	221 3.80	67.....	193 3.80	118.....	135 3.80
59.....	259 3.80	78.....	232 3.80	85.....	215 3.80
61.....	250 3.80	93.....	218 3.77½	73.....	234 3.77½
72.....	144 3.77½	18.....	133 3.77½	84.....	244 3.77½
61.....	311 3.77½	73.....	188 3.77½	86.....	177 3.77½
57.....	248 3.77½	84.....	290 3.77½	72.....	179 3.77½
62.....	239 3.75	5.....	98 3.75	21.....	86 3.75
1.....	190 3.75	74.....	184 3.75	69.....	202 3.75
58.....	293 3.72½	55.....	281 3.72½	52.....	211 3.72½
63.....	278 3.72½	47.....	255 3.72½	62.....	250 3.72½
12.....	95 3.70	61.....	188 3.70	7.....	91 3.70
62.....	226 3.70	65.....	285 3.70	67.....	242 3.70
41.....	75 3.65	77.....	174 3.50	19.....	97 3.70
2.....	440 3.40	14.....	262 3.30	19.....	243 3.45
2.....	295 3.10	8.....	178 3.70	2.....	360 3.20

Sheep—Receipts since Saturday, 5,003; shipped Saturday, 4,100. The market was active and steady. The following are representative sales:

670 Ida lms.....	67 \$5.00	21 sw lms.....	69 \$4.45
5 sw sh.....	114 4.00	230 Ida sh.....	97 4.00
320 Utah.....	108 4.03	625 Col.....	97 3.80
78 fdrs.....	79 3.25	27 culls.....	75 3.25

St. Louis Live Stock.

St. Louis, Sept. 26.—Cattle—Receipts, 3,500; market steady for natives and easier for Texans; native shipping steers, \$4.70@5.70; light and dressed beef and butcher steers, \$3.80@5.35; stockers and feeders, \$2.75@4.40; cows and heifers, \$2.00@4.80; Texas and Indian steers, \$2.75@4.35; cows and heifers, \$2.00@3.35.

Hogs—Receipts, 3,000; market steady; yorkers, \$3.90@4.00; packers, \$3.80@4.05; butchers, \$4.00@4.07½.

Sheep—Receipts, 2,500; market steady; native muttons, \$3.90@4.35; lambs, \$4.00@5.00.

Chicago Live Stock.

Chicago, Sept. 26.—Cattle—Receipts, 21,000; market steady to 10c lower; beefs, \$3.90@5.70; cows and heifers, \$2.00@4.60; Texas steers, \$3.10@3.85; western, \$3.50@4.45; stockers and feeders, \$2.10@4.50.

Hogs—Receipts, 36,000; market generally 5c lower; light, \$3.60@4.00; mixed, \$3.55@4.02½; heavy, \$3.45@4.05; rough, \$3.45@3.60.

Sheep—Receipts, 19,000; market steady; natives, \$3.80@4.60; western, \$3.50@4.40; lambs, \$3.75@5.75.

Chicago Grain and Provisions.

	Sept. 26.	Opened	High'st	Low'st	Closing
Wh't—Sept.....	66½	67½	68½	67½	67½
Dec.....	63½	64½	65½	63½	64½
May.....	64½	65½	66½	64½	65½
Corn—Sept.....	29½	29½	29½	29½	29½
Dec.....	29½	30	29½	30	30
May.....	31½	32	31½	32	32
Oats—Sept.....	21½	21½	21½	21½	21½
Dec.....	20½	21	20½	21	21
May.....	22½	22½	22½	22½	22½
Pork—Sept.....	8 15	8 40	8 15	8 30	8 30
Dec.....	8 20	8 40	8 20	8 40	8 40
Lard—Sept.....	4 75	4 92½	4 75	4 85	4 85
Dec.....	4 80	4 95	4 80	4 92½	4 92½
Ribs—Sept.....	5 22½	5 32½	5 22½	5 30	5 30
Dec.....	4 72½	4 82½	4 72½	4 82½	4 82½

Kansas City Grain.

Kansas City, Sept. 26.—Wheat—Receipts here to-day were 378 cars; a week ago, 303 cars; a year ago, 534 cars. Sales by sample on track: Hard, No. 1, nominally 64@65c; No. 2 hard, 62@64½c; No. 3 hard, 59@62c; No. 4 hard, 55@61½c; rejected hard, 5½@57½c. Soft, No. 2, nominally 66c; No. 3 red, nominally 60@63c; No. 4 red, 59c; rejected red, 55@55½c. Spring, No. 2, 64c; No. 3 spring, 60½c; rejected spring, nominally 50@57c.

Corn—Receipts here to-day were 56 cars; a week ago, 38 cars; a year ago, 64 cars. Sales by sample on track: Mixed, No. 2, 26½@27c; No. 3 mixed, 26c; No. 4 mixed, 25½c; no grade, nominally 25c. White, No. 2, 26½@27c; No. 3 white, nominally 26c; No. 4 white, 25½c.

Oats—Receipts here to-day were 34 cars; a week ago, 41 cars; a year ago, 20 cars. Sales by sample on track: Mixed, No. 2, nominally 22c; No. 3 mixed, nominally 21c; No. 4 mixed, nominally 19@20c. White, No. 2, 23c; No. 3 white, 22½c; No. 4 white, nominally 20@21c.

Rye—No. 2, 50c; No. 3, nominally 48c; No. 4, nominally 47c.

Hay—Receipts here to-day were 84 cars; a week ago, 38 cars; a year ago, 80 cars. Quotations are: Choice prairie, \$8.50@7.00; No. 1, \$8.00@6.50. Timothy, choice, \$7.25@7.50. Clover, \$6.50. Alfalfa, \$4.50. Straw, \$4.00.

Kansas City Produce.

Kansas City, Sept. 26.—Eggs—Strictly fresh, 12c per doz.

Butter—Extra fancy separator, 20c; firsts, 18½c; dairy, fancy, 16c; store packed, 14c; packing stock, 11c.

Poultry—Hens, 7c; broilers, 8½c; roosters, 15c each; ducks, 5c; young ducks, 6½c; geese,

4c; goslings, 6½c; turkeys, old, 5c; young, 2c.

10c; pigeons, 50c per doz.

Fruits—Grapes, 20@25c per peck. Peaches, 60@80c per ½ bu. Apples, home grown varieties, \$2.50@3.00 per bbl.

Vegetables—Roasting ears, home grown, 5@6c per doz. Tomatoes, home grown, 60c@1.25 per bu. Cucumbers, 15@20c per bu. Green and wax beans, 35@50c per bu. Lettuce, home grown, 50@60c per bu. Onions, new, 25@40c per bu. Beets, 30c per bu. Cabbage, home grown, 20@40c per doz. Celery, 30@45c per doz. Pumpkins, \$1.00 per doz.

Potatoes—Home grown, 30@35c per bu. in ear lots. Sweet potatoes, home grown, 50c per bu.

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it!

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

TEN THOUSAND MAMMOTH BLACK TWIG apple trees, six feet high, for sale, two years old. G. S. Sweet, Columbus, Kas.

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

FARM FOR SALE—A sixty-acre farm three miles west of Lawrence, on California road. About twenty acres of mow land and pasture, balance under cultivation. Six-room house, good cellar, barn 24x40, plenty good sheds and out buildings, cistern at house and at barn, also good well in pasture. One-half mile from school house and a splendid road to town. Price \$2,300. Will sell on the following terms: A payment of \$800 cash. Balance, \$1,500, secured by a five-year mortgage on the same, bearing 6 per cent. interest. There is no cheaper property in a better neighborhood in Douglas county. J. C. Santa, P. O., Lawrence, Kas.

WE WANT men to take orders at once for our farm machinery, and other lubricating oils and greases. Liberal commission. Write for terms. Canfield Oil Co., Cleveland, Ohio.

FOR SALE—Twenty half-blood and high-grade Shropshire ewes and lambs; reason, sold my farm. Jesse Axtell, Blue Rapids, Kas.

ALFALFA SEED WANTED by F. Farteldes & Co., Lawrence, Kas. Correspond with them.

WANTED—Team of good young draft horses, mares preferred, not over six years old; weight 1,300 to 1,400; cash. Write full particulars stating price, D. F. Wickman, P. O. Box 107, Topeka, Kas.

WRITE Frank J. Brown, 17 Columbian Bldg., Topeka, Kas., if you want to buy or sell real estate or borrow money.

FOR SALE—Three herd boars which have proven great sires, but now can be spared. These Poland-China boars are Look Me Up 40529 by Look Me Over, 2 years old; Hadley Jr.'s Equal 19115 by Hadley Jr. out of Spot H. 2d, 18 months; and King Tecumseh 18307 by King Perfection and out of Queen Tecumseh, 5 years old. Address, R. H. Wheeler, Lawrence, Kas.

FOR SALE—Three yearling English Berkshire boars, \$12 each. Sows and gilts, bred, at farmer's prices. Young Berkshires and Poland-Chinas, six months old, \$7 each, \$12 per pair. Young Buff Cochins, 75 cents each, \$2 per dozen. H. A. Thomas, Scranton, Kas.

WE WANT RELIABLE MEN in every locality at once to sell to farmers, threshermen and mills our high-grade lubricating oils, greases and specialties. Makes an excellent side line for farm implement dealers. We are manufacturers, and with our instructions an inexperienced man can become an expert oil salesman. Write at once for terms. Malone Oil Company, Cleveland, Ohio.

TRADE FARMS.—I want eighty or 120 acres, improved or wild, good soil, for twenty-five acres one mile from Fort Scott (population 12,000); improvements cost \$3,000, unfailing good water, land in clover and fenced with woven wire for hogs, fine location, clear title. Geo. Purdy, Box 131, Fort Scott, Kas.

CRIST MILL—Seventy-five barrel capacity, Case Mfg. Co. machinery, water power, rock dam, residence of seven rooms, ten to fifteen acres land; cost about \$25,000; to settle an estate will be sold almost regardless of price; write. Merchandise—\$18,000 to \$20,000 stock of general merchandise in No. 1 town in southeastern Nebraska; will sell to a party who wants a No. 1 business. Farms, lands, ranches and other properties to sell and exchange. If you wish to make a change, write me. Money to loan on farm security. Henry C. Smith, Falls City, Neb.

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

FOR SALE—CHEAP—200 acres of well-improved, well-watered land. For particulars, address Samuel Boaz, Linwood, Leavenworth Co., Kas.

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

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

FOR SALE—Five hundred head of breeding ewes, 300 head yearling wethers, 300 head of wether lambs. Address H. B. Slaven, Dodge City, Kas.

FOR SALE—Three fine registered Jersey bulls, old enough for service. Also some young bull and heifer calves; will sell at a bargain. Lindsay Creek Dairy Farm, Chas. H. Johnson, Prop., Minneapolis, Kas.

WANTED—Men to learn barber trade; commission allowed this month; eight weeks completes. Catalogue mailed free. Moler's Barber College, St. Louis, Mo.

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

HADLEY BOY 18518—Price \$40. W. S. Powell, Moine, Elk Co., Kas.

MACLEAN FARMERS' SUPPLY CO., Kansas City, Mo. (Between Union Depot and Stock Yards.) Sell machinery and other supplies to farmers direct, saving the consumer middlemen's profits. Send now for 1898 Spring Price List.

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

RICHLAND HERD.—I want to close out the entire herd of Poland-China sows and herd boars, including Kiever's 1st Model 18245 S., What's Wanted Jr. 2d 18534, and B.'s Black U. S. 19057. The breeding and quality of these boars ought to suit anybody. Come and inspect, the only way to get suited. F. W. Baker, Council Grove, Morris Co., Kas.

DAIRY WAGON FOR SALE—Good two-horse covered dairy wagon, custom made. A. B. Jones, Topeka, Kas.

FOR SALE OR TRADE—Three Shetland ponies. Call or address H. W. McAfee, Topeka, Kas. (Prospect Farm, three miles west of Kansas avenue.)

HIGH-GRADE Shropshire rams, lambs and yearlings. H. W. Melville, Eudora, Kas.

SHORT-HORN BULLS—Forty-six cows and heifers, Crulckshank, Young Marys, Rose of Sharon and others; an extra lot. Nearly all were sired by that grand Crulckshank, Royal Prince 100646. Six bulls ready for service, sired by Young Mary bull, Glendon 11871. Parties met by appointment. Theodore Saxon, St. Marys, Pottawatomie Co., Kas.

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

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

BREEDER OF THE PRIZE-WINNING HERD OF THE GREAT WEST. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 2441, Black Joe 3863, World Bester and King Hadley. For sale, an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

200 — PURE-BRED POLAND-CHINA SWINE FOR SALE — 200

By GEO. CHANNON, Hope, Dickinson Co., as., Breeder of Poland-China Swine and Short-horn Cattle.

I must reduce my herds to the minimum on account of short feed and insufficient accommodations for winter, therefore will sell at prices that should be a big object to purchasers. My offering consists of tried brood sows, gilts and boars, all ages. Will sell singly or in lots to suit. The young stock is by my herd boars Prince Bismarck 1867, Seldom U. S. 18218, Duke of Weston and Corwin. Come now and get a bargain. Also, for sale thirty extra fine young Short-horn bulls, sired by Glendower 10338. None better in Kansas.

Sir Charles Corwin 14520 and Harry Faultless, Jr.

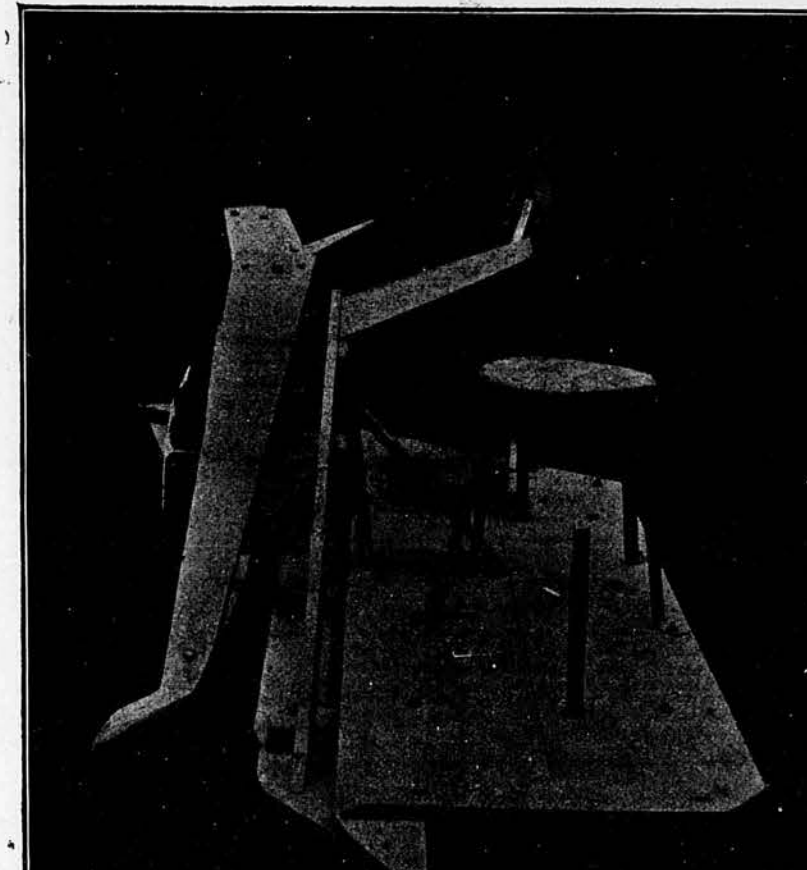
HEADS OF HERD. We have been in the show ring for the last three years, always winning the lion's share of the premiums. If you want prize-winners and pigs bred in the purple, we have them. All ages of Poland-China swine for sale. Write or come and see us. We have an office in the city—Rooms 1 and 2 Firebaugh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

VALLEY GROVE SHORT-HORNS.

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

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

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



CORN HARVESTER.
Manufactured and for sale by the KANSAS CITY HAY PRESS CO., Kansas City, Mo. Get our prices.

The Poultry Yard

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

KANSAS STATE POULTRY ASSOCIATION.

President, A. M. Story, Manhattan.
Secretary, J. W. F. Hughes, Topeka.

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

POULTRY AT THE KANSAS EXPERIMENT STATION.

Editor Kansas Farmer:—In years gone by, there have been appeals from poultrymen all over the State, both as individuals and associations, for a poultry department at the Kansas Experiment Station at Manhattan. At present it seems as if some of these eggs will prove fertile and hatch into a poultry division at an early date. If the changes of 1897 in the station staff did not add a poultryman to the number, they did add several earnest friends of the hen, who since then have worked hard in her interest. President Will and Professor Cottrell and others are now preparing for active work in the way of plans, and means, financial and otherwise.

Although we have friends at work in the station staff, we must not think that they are all the ones who need to work. It is important and necessary to make this a certain success. To do this requires a sufficient starting fund, and to be sure of this, every chicken, duck, turkey, goose, pigeon and "any-other-old-bird" man must get out and rustle. He must exert his whole lifting power in the line of influence, coercion and all other means, whether moral, social, financial or political, to get the experimental plant established, firmly rooted and grounded.

Let every poultry club in the State draw up resolutions expressing their wishes in regard to the subject and send them by the next through train to the President of the Board of Regents of the college. Let them also induce their candidates for Representative to the Legislature, next winter, to promise to work for any measure favorable to the cause, and when everything else fails, the clubs of the State should voluntarily subscribe the few hundred dollars to establish the plant, after which it can be safely left to keep itself running.

Some old fogies and cranks may claim that there is no need of experiments in this line, but they don't know. I was actually told by a well-educated person, whom I was trying to argue into the necessity of a poultry department at the college and experiment station, that the poultry interests in the State did not justify it. This is the point at which to stop argument and statistics and use a club.

I will give no statistics here. They are familiar to the chicken men over the State, and those who are ignorant of the work of the Kansas "mortgage-lifter" I must refer to the invaluable reports of Secretary Coburn, which "are and by right ought to be" standard literature in the home of every Kansas farmer. In these you can learn all about how "The Helpful Hen" surpasses the Kansas Beef Steer's Sister, the dairy cow, and many other true stories. Here you can get all the statistics any one needs, and have the pleasure of looking it up for yourself.

Then others will say that if the Kansas hen is doing so well now, she won't need the help of the station folks. But if, in the past, they could make "two blades of grass grow where one grew before," so now they can tell you how to make the hen lay two eggs where she laid one before. Yes, my friend, the hen and her master can both be improved. There is plenty of work to be done on both.

The relative value of incubators, as compared with each other, and with the hen; experiments with brooders and other poultry furniture; value of different foods as meat- and egg-producers; advantages and merits of different methods of care and feeding, can all be considered. But for fear some one will think that is all, let us go on. Experiments should be conducted showing the value of the hen as a producer of Kansas wealth, when compared with corn, wheat, hogs, dairy and beef cattle, etc., both as "broilers" or layers. Chickens, ducks, turkeys and other species of lesser importance should be tested in regard to net profit and adaptability to Kansas conditions. Standard varieties should

be compared with each other and with scrubs in regard to their qualities as layers, table fowls and money-makers. Capons should be thoroughly tested as to their advantages over ordinary cockerels, and experiments carried out to show the best varieties and crosses for the purpose, and the proper methods of operating on, feeding and caring for them and preparing them for market. Methods of storing eggs over summer is a good "open question."

Feeding experiments already hinted at will be of great importance. The ordinary farmer's chickens and other poultry are either starving or too fat, little regard being paid to rations—"forage for yourself" being the rule on most places. The results of feeding Kaffir corn, wheat, oats, corn, Russian sunflower seed, alfalfa, meal, bran, oil meal, bread, scraps and other common foods are little known from a scientific basis. Balanced rations for cattle and hogs are common—give us some for the hen. The effect of the climate of Kansas on the different breeds, with a view to selecting the most suitable birds for western Kansas, or by crossing different varieties and selecting the most hardy to form a new variety, will be another important feature. The check of growth and egg-laying, caused by lack of protection in hot and cold weather, should be investigated and the farmer shown what he might save by giving shade in summer and good, warm shelter in winter.

A model chicken farm should be run on a paying basis as a living picture to show the anti-hen men. There is nothing like this to shelve the old fogies. From this farm the college lunch-room could be supplied and birds of all kinds supplied to the Veterinary department for experiments with poultry diseases. And so I might go on and on over a page or two of the Farmer, but I close with a last, but not least: An investigation of the best method of marketing. This takes in a broad field and includes what might be called the new motto of the station: To teach the farmer how to get 2 cents for his produce where he got 1 before.

Give Professor Cottrell the means to start his hen plant and the wages for a careful man "to lead the ducks to water," as the Professor says, and he will show the Kansas chickens, ducks, geese, turkeys and pigeons that they "never did know straight up anyway."

With best wishes for the hen,
Manhattan, Kas. J. B. NORTON.

A Timely Article.

The special attention of Kansas Farmer readers is called to the article in another column of this department, by J. B. Norton, on "Poultry at the Kansas Experiment Station," which is both timely and excellent in many respects, and treats of a matter of vast importance to all interested in poultry culture in Kansas. The subject is one which the editor has often thought over, and wondered why such a department had not long since been established in connection with the other work of the college. The suggestions contained in the article in question are far-reaching and of great importance. However, the editor thinks that friend Norton should have gone one step further, and suggested the establishment of a special course of instruction, of say four to six weeks each winter, under competent instructors, such

Any guarantee

you want—even this we will do:

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will not cure. It is the veterinary wonder of the age, and every stable should have a bottle always on hand. Locates lameness when applied by remaining moist on the part affected.

WAITS RIVER, VT.

DR. S. A. TUTTLE.
Dear Sir:—I have used your Elixir on one of the worst spavins that I ever saw on a horse, and it entirely cured the lameness. I also used it for rheumatism in my family, with just as good a result, and will cheerfully recommend it to any one in want of a liniment.

Tuttle's Family Elixir cures Rheumatism, Sprains, Bruises, Pains, etc. Samples of either Elixir free for three 2-cent stamps for postage. Fifty cents buys either Elixir of any druggist, or it will be sent direct on receipt of price. Particulars free.

DR. S. A. TUTTLE, Sole Proprietor,
27 Beverly Street, Boston, Mass.

A Woman's Work.

For thirteen years this woman suffered from a helpless infirmity which baffled skillful medical treatment. She was restored to health in a remarkable manner, and is now helpful to other sufferers.

For thirteen years Mrs. George L. Rogers, of West Main Street, Canton, N. Y., suffered from the indescribable tortures of inflammatory rheumatism.

Only persons who have been afflicted with this disease know what such suffering is.

Those who have never felt the pangs of this ailment have not the remotest idea of its tortures.

For years this was an obstinate disease to cure.

In recent years, however, there has been formulated a remedy which successfully copes with it.

The many cures effected by Dr. Williams' Pink Pills for Pale People attest to that fact. One of the striking examples is Mrs. Rogers' experience.

In speaking of it to a reporter she said: "Thirteen years ago I was attacked with inflammatory rheumatism and a complication of diseases.

"I cannot begin to describe my sufferings during that time.

"You can judge somewhat of what I endured, when you look at these hands." They were distorted, twisted and swollen.

"My foot, too, is so much out of shape that the big toe lays across the others, the end touching the little toe.

"Notwithstanding I am sixty-five years old, have a pleasant home and other comforts, life to me was far from enjoyable, for all other things pale into insignificance when you are without good health.

"I tried different doctors and many proprietary remedies, but no permanent benefit was obtained.

"Last March I was induced to try Dr. Williams' Pink Pills for Pale People.

"Before I had finished the first box I began to feel that they were doing me good.

"I continued using them and steadily grew better.

"I have used thirteen boxes of the pills and to-day feel better than for the past fifteen years.

"My appetite is good; I feel bright, cheerful and have a desire to live and enjoy society.

"I have been a member of the Methodist church for many years, but for six years was unable to attend.

"Now I am able to attend the church services regularly and certainly appreciate that privilege.

"I consider Dr. Williams' Pink Pills for Pale People a wonderful medicine and am confident no other remedy could have effected the wonderful cure they have in my case.

"I am glad to state this, hoping that some sufferer may profit by it and obtain relief."

It was nature's own remedy that accomplished this cure caused by impure blood, for Dr. Williams' Pink Pills for Pale People are composed of vegetable remedies that exert a powerful influence in purifying and enriching the blood. Many diseases long supposed by the medical profession to be incurable have succumbed to the potent influence of these pills. This universal remedy is sold by all druggists.

DISSTON'S



crucible cast steel, and are FULLY WARRANTED. Send for PAMPHLET OR SAW BOOK, mailed free.

It will pay you to buy a new saw with "DISSTON" on it. It will hold the set longer, and do more work without filing than other saws, thereby saving in labor and cost of files. They are made of the best quality. For sale by all dealers.

HENRY DISSTON & SONS, Philadelphia, Pa.

PREVENT YOU WILL NEVER LOSE A HOG
HOG CHOLERA.
by hog cholera or swine plague if you use CHLORO-NAPHTHOLEUM as directed. We guarantee it to prevent these diseases and cure them in the earlier stages. Don't wait until your hogs are sick, but get a gallon at once and you will never be without it. A sample gallon for \$1.50 freight prepaid. Chloro-Naphtoleum is the most wonderful non-poisonous germicide and disinfectant. Be sure and send for our free booklet, which is a scientific treatise of great value to all breeders. Responsible agents wanted. 112 E. 57th St., N. Y. City. WEST DISINFECTING CO., 2361 Indiana Ave., Chicago.

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

	Cattle and Calves.	Hogs.	Sheep.
Official Receipts for 1897	1,921,962	3,350,796	1,134,236
Sold in Kansas City 1897	1,847,673	3,348,556	1,048,233

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

WHEN WRITING ANY OF OUR ADVERTISERS PLEASE MENTION KANSAS FARMER.

as James Rankin, I. K. Felch, H. S. Babcock and others, in the different branches of our work, similar to that of last January at the Rhode Island Experiment farm, accounts of the work of which were published in several papers early in the present year, then his article would have been complete.

By all means, let us have the experimental plant, as suggested by friend Norton, to demonstrate conclusively that poultry does pay, and the rearing of standard-bred best of all, but let us also have in connection therewith the "special course of instruction," where all who may see fit may attend at slight expense, and secure thorough and practical training by experts in each branch, on such subjects as "Artificial Incubation," "Brooders and Brooding," "Feeding Young and Old, and for Different Purposes," "Broilers," "Caponizing," "Marketing," etc.

The "school" at the Rhode Island station last January was considered by all who attended—and among the students were some of the country's foremost breeders—an unqualified success, and, from all accounts, must have been a very enjoyable affair, and there is no good reason why Kansas should not have just as good as Rhode Island, or any other State.

Inquiry Corner.

Under this head we will answer free, each week, such inquiries as are received pertaining to any point in poultry culture. We invite inquiries and answers from all our readers.

Editor Kansas Farmer:—Please send sample copy of Kansas Farmer. I also want information concerning caponizing young cockerels. Perhaps you could put me on track of it. L. W. STRANGE.

La Fontaine, Kas.

Answer:—Send 15 cents in stamps to Poultry Keeper Co., Parkersburg, Pa., for issues of Poultry Keeper for January, 1897, March, 1892, and July, 1892. These issues contain illustrated articles showing proper methods to pursue, and will probably help you out. You might also write to G. P. Pilling & Sons, 1229 Calowhill St., Philadelphia, Pa. (enclosing 2-cent stamp), for their "Capon Book." Also, W. H. Wigmore, 912 Rementer St., Philadelphia, and Allerton Caponizer Mfg. Co., Allerton, Iowa, who are manufacturers of caponizing instruments and issue books of instructions from which you might get pointers. There is also a book, "Capon and Caponizing," by Geo. Q. Dow, that is the best thing I know of, John B. Alden, New York, publisher.

Dressed Poultry at the State Show.

How many of our readers have thought of the proposition in issue of August 11, to inaugurate this new feature in our State shows hereafter, and have begun to prepare for the same? So far, there has been no response to the invitation extended to notify us of an intention to exhibit. If any one intends to make an exhibit—and there ought to be many—it is none too soon to begin to prepare for it. All interested, turn to issue for August 11, 14th page, first article, and study it well. It will pay you.

The Saline County Poultry, Pigeon and Pet Stock Association will hold its fourth annual show, December 12 to 17, inclusive. Wick B. Hathaway, of Madison, Ohio, judge. This promises to excel all former efforts, both in quality and number of birds. For catalogue and further information address the Secretary, W. C. Sherrill, Salina, Kas. *

POULTRY SUPPLIES.

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

ITALIAN BEES.

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

A. H. DUFF, Larned, Kas.

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

KEYSTONE DEHORNING CLIPPERS
The Quiet, Orderly, Gentle and Safe animal is the one that has been dehorned. It means animal comfort and that means animal profit. This knife cuts clean, no crushing or bruising. It is quick, causes least pain. Strong and lasting. Fully warranted. Highest awards World's Fair. Send for free circulars and prices before buying. **A. C. BROSIUS, Cochranville, Pa.**

W. S. Young, McPherson, Kas., Western Agent

"DOC" SANDEN.

"Dear Doc.: I ain't no weak man no more. Your Electric Belt done it."



The above terse though ungrammatical statement was received from a Texas cowboy patient the other day, and speaks volumes. This man was at one time in every sense a wreck. I took charge of him, and after using my Electric Belt three months he reported to me a complete cure. I wrote for a testimonial and received the above. My specialty for the past thirty years has been the treatment of those weaknesses which result from youthful errors or later excesses, such as Drains, Nervous Debility, Lamé Back, Impotency, Varicocele, etc. Twenty years ago I abandoned drugs and to-day offer in my famous Electric Belt a remedy which I believe will never fail if given a fair, square show. I can produce tens of thousands of letters from men in every station and condition of life. In far-away China I have hundreds of cures. Last year from all sources I received over 5,000 testimonials of absolute cures. Reader, what more can I say to convince you? As true as life itself, I have the greatest therapeutic appliance the world has ever known in the Dr. Sanden Electric Belt, and before ten years pass every doctor will recommend it. Remember, the pure galvanic current can never stimulate. It MUST strengthen and tone. Applied at night it cures while you sleep.

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"Three Classes of Men," which explains all, and is sent in plain sealed envelope. All advice free.

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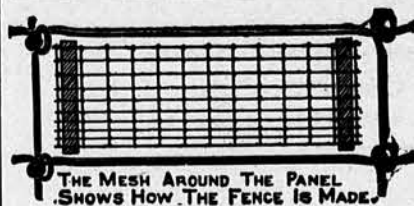
Large inside burr revolves twice to sweep's one. Ordinary length sweep.
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Over one-half the canal completed to a depth of sixteen feet.

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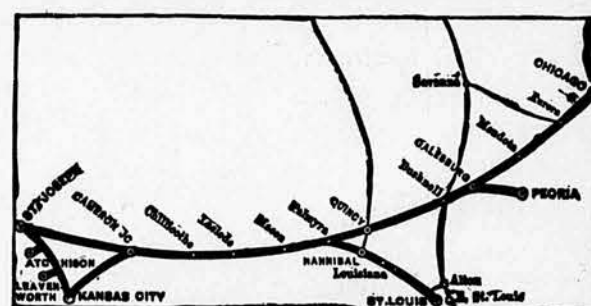


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Pursuant to the will of the late David R. Youngs, I offer at private sale all the real estate belonging to his estate, as follows:
1. The "Home Place," w. hf. of nw. qr. sec. 26, and e. hf. of ne. qr. sec. 27, t. 12, r. 15, 160 acres. Contains good house, barn and sheds, outhouses, corrals, wells and cisterns, wagon scales, three orchards, and all appurtenances constituting a first-class farm. About 130 acres plow land, 12 acres clover, 15 acres alfalfa, remainder pasture land, timber land and creek, all well and conveniently fenced. Price, \$8,000. Terms, one-third cash, one-third in two years and balance on long time. Interest on deferred payments 7 per cent. per annum, secured by mortgage.
2. Also the e. hf. of nw. qr. of said sec. 24 80 acres. About 40 acres first-class plow land and about 40 acres hay land. Well and separately fenced. Price, \$3,200. Terms same as above.
3. Also about 101 acres of pasture land in one body, well fenced and well watered, being nw. qr. of ne. qr. f. l. and sw. qr. of ne. qr. f. l. of said sec. 27, and about 34 acres off the east side of the nw. qr. f. l. of said sec. 27. Price \$20 per acre. Terms same as above.
4. Also about 101 acres of good prairie hay land, being w. hf. of nw. qr. f. l. of said sec. 27, and about 34 acres off the west side of the e. hf. of nw. qr. f. l. of said sec. 27. Price \$25 per acre. Terms same as above.
5. All of the above described land lying contiguous and constituting one large and complete farm and situated about seven miles southwest of Topeka near the Burlington road, will be sold together for \$15,000, on the same terms already stated.
6. Also 42 acres in se. qr. of sec. 9, t. 12, r. 15, near Six Mile creek. Mostly first-class plow land; well fenced. Small house and some other improvements. Price \$1,250. Terms same as above.
For further information write or call on the undersigned at his office, Bank of Topeka building, Topeka, Kas.
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Administrator, with will annexed, of said estate.



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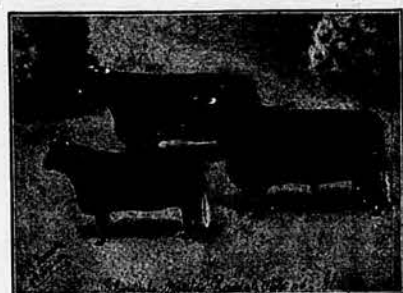
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Cattle delivered free of expense on board cars at Moffat, Colo., on the D. & R. G. R. R. Farm connected by telephone at Moffat. Prospective buyers will find free hotel and livery accommodations at Moffat. Persons interested in Herefords or are desirous of becoming so will be welcome at our headquarters at Omaha, Neb., where our show herd will be on exhibition during the live stock exhibit, October 3 to 20, 1898, under the auspices of the Trans-Mississippi and International Exposition. **TERMS:** Cash or part cash, with time when satisfactory arrangements can be made. For further particulars address

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Having lost the greater portion of our hay by lightning, we offer for sale twenty-five or thirty **SHORT-HORN** Cows, Heifers and Spring Calves at bottom prices. Don't write, but come at once and pick them out before they are all gone. Also one extra fine red yearling bull of the Duchess family.

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On Tuesday and Wednesday, October 25th and 26th, at Kansas City Stock Yards, I will sell 100 head representative Hereford Bulls, Cows and Heifers of my own breeding and selection from three importations made during the past year. Catalogue will be ready September 20th.

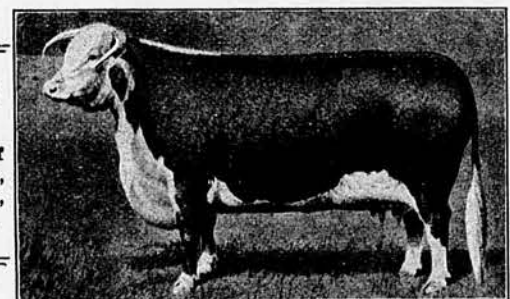
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At the spring sales of 1898 we sold the highest-priced male and highest-priced female, and also had the highest averages for 5, 10, 20, 40, 60, 80 and 100 head. These averages were higher than that of any Hereford sale of recent years. Salisbury, sold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

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40 YOUNG COWS AND HEIFERS--30 BULLS.

28 HACKNEYS AND 20 DRAFT HORSES.

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