

"TWENTY YEARS OF KANSAS AGRICULTURE"—IN THIS ISSUE.



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

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KANSAS HERD OF POLAND-CHINA SWINE.—Has five choice yearling sows bred to my black U. S. boar, and one Tecumseh boar and thirty-five fall pigs by Model Sanders (20492) by Klever's Model. They have typical ears and show fine markings. Address F. P. Maguire, Haven, Kas.

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PURE-BRED POLAND-CHINAS.

Spring crop of pigs by Wren's Model, What's Wanted Wilkes and Tanner by Hildrethcher. Dams by Black Corwin, Wren's Medium, Protection Boy, Moss Wilkes Tecumseh, Hadley M. Washington. Get a Corwin Sensation, Darkness 1st, or Moss Wilkes Maid boar before my sale this fall. Some extra fine gilts for sale now. Tanner pigs are marked perfectly and have fine finish. Write me for particulars. J. R. WILSON, Marion, Kas.

POULTRY.

PURE-BRED POULTRY.

Barred P. Rocks, White P. Rocks, Partridge Cochins, White Cochins, Light Brahmas, S. L. Wyandottes, White Wyandottes, Black Javas, Brown Leghorns, White Leghorns, Buff Leghorns, Silver Spangled Hamburgs, Pearl Guineas and Pekin Ducks. Two hundred this year's breeders for sale. Also 500 Spring Chicks, ready to ship after the first of July. Prices lower than any other time of the year. Circular free. A. H. DUFF, Larned, Kas.

Special Sale of White Wyandottes

FOR NEXT THIRTY DAYS AT

Excelsior Poultry Farm

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Stock first-class. Prices close, to move stock quickly. If you want stock for early show, here's your chance. Also a fine lot of Black Langshans and Buff Cochins. O. B. TUTTLE.

ROCKS WHITE and BLUE BARRED

Empire, Lash and Conger Strains.

Eight years experience in breeding Rocks exclusively. Have the best young stock this year I have ever raised. Perfect, high-scoring, prize-winning birds. Two hundred pullets and cockerels now ready for shipment. A few cockerels from E. B. Thompson eggs for sale. Write for descriptive circular and prices. Printed recipe for making and using Liquid Egg Killer, 25c. Address T. E. LEFTWICH, Larned, Kas.

SWINE.

BOURBON COUNTY HERD BERKSHIRES.

J. S. MAGERS, Proprietor, Arcadia, Kas. Correspondence invited. Satisfaction guaranteed.

M. H. ALBERTY, Cherokee, Kas., Breeder of Registered Duroc-Jersey Swine. Baby Pig Teeth Clippers, 35 cents by mail.

VERDIGRIS VALLEY HERD PEDIGREED POLAND-CHINAS.

Two hundred head, four herd boars, 150 spring pigs. An extra lot of September boars and gilts for sale. Prices reasonable. Farmers and Stock Hog Raisers cordially invited to write or visit us. WAIT & EAST, Altoona, Wilson Co., Kas.

Standard Herd of Poland-Chinas

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.

Stock for sale. Correspondence and inspection invited.

HEADQUARTERS FOR POLAND-CHINAS

IN KANSAS IS AT SHADY BROOK STOCK FARM,

H. W. CHENEY, Prop., NORTH TOPEKA, KAS.

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

BERKSHIRES.

Our herd numbers forty head, with fine prospects for large increase this fall. Foundation stock from leading Iowa and Kansas herds. 2d Seven Oaks 45718 herd boar. We have also for sale fifty Silver-Laced Wyandottes. Address MANWARING BROS., Lawrence, Kas.

POLAND-CHINAS.

Guy Darkness 18292 and Best Nims 19612, herd boars. Sept. '97 boars and gilts for sale. Guy Darkness 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.

Nation's Poland-Chinas.

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

E. E. AXLINE, Oak Grove, Mo.

POLAND-CHINAS.

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 12934 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. Symms, Prop., Hutchinson, Kas. Herd boars, Darkness 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.

M. C. VANSELL, Muscotah, Atchison, County, Kansas,

Breeder of Pure-bred Poland-China Swine and Short-horn Cattle of the most desirable strains.

For Ready Sale Thirty Poland-China Bred Sows

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

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 19853, 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

Imp. 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.

SHROPSHIRE RAMS.

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 Sharon, Lady Elizabeth and Young Marys. Richest breeding and individual merit. Young bulls by Godwin 115676 (head of Linwood herd). Sir Charming 4th now in service.

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, Habbu, 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 breeding for sale. Personal inspection invited.

ALBERT DILLON, Hope, Kansas.

Agricultural Matters.

IS KANSAS PROSPERING?

BY H. H. HILTON, TOPEKA, KAS.

Kansas in the aggregate is prospering. The decrease in mortgage indebtedness (estimated at \$30,000,000 during 1897); the large accumulation of money in banks; the additional acres being purchased by resident farmers; the increase in value of farm and pasture lands and in flocks and herds; the storage of grain by farmers to be held for higher prices; the new life that has come to a large majority of our Kansas towns, all unite in testifying that real prosperity is spreading itself over large areas of Kansas and that a large percentage of her population are now greatly improving their material condition.

What is the source of this prosperity and what agencies have been most potent in bringing about these better conditions?

Turning to Secretary Coburn's admirable tabulation, "Twenty Years of Kansas Agriculture," we find that all products of the farm in 1897, including "products of live stock," is only twelve million dollars greater than the average of twenty years, and that there were seven years, viz., 1882, 1883, 1884 (years of prosperity), 1888, 1889, 1891 and 1892 (years of steadily decreasing values and great depression), in which the values of all farm products averaged fourteen million dollars per annum higher than that of 1897. If the measure of our prosperity is simply the gross value of all our products then Kansas soil and Kansas cattle, hogs and other live stock cannot be held responsible for any large degree of adversity during the past twenty years.

But instead of looking at these values in the mass, let us reduce them to units, and see what Kansas acres have been doing from 1874, an historic year in Kansas agriculture, till the present time, showing only yields per acre and values per acre. In order that the relation of yields and values per acre in each year may be more readily seen, these figures are presented in chart form.

The curved lines in Chart I show the variations in the average acre yields and acre values of wheat in the entire State for twenty-five years. The harmony between yields and values, especially in the last thirteen years, makes it evident that the yield per acre is a greater controlling factor in determining the value per acre than is the price per bushel.

A study of the variations in annual yields of wheat, as shown on this chart, reveals an orderly succession of three-year periods of low yields alternating with periods of three to five years of high yields per acre. Each complete cycle approximates seven years, and the low yield periods make a lower record every time they return. Larger area and a greater increase of upland or inferior land than of bottom land with each returning cycle are suggested as probable factors in decreasing the yields per acre.

In Chart II, the curves showing the acre yields of corn through twenty-four years, point out, distinctly the years of maximum summer temperature, minimum summer rainfall and correspondingly low yields in 1874, 1881, 1887 and 1894 (approximately seven years apart), with a secondary low yield curve in 1890, following 1887, and another in 1897, following that of 1894. Corn yields have alternated frequently between high and low in the last twelve years, but on the whole the chart reveals unmistakably a steady decline in average yields per acre since 1885.

During the first twelve years—1874 to 1885—the average yield of corn in the entire State was 34.57 bushels per acre, and during the last twelve years but twenty-two bushels per acre. The increasing acreage westward and the greater area of uplands being brought under cultivation would affect the average yields of corn more seriously than that of wheat, and undoubtedly have been influential factors in reducing the yield, but there are other factors probably more important that will be referred to later in this article.

Chart III shows the value of all crops, including prairie hay, per acre from 1874 to 1897. The curved lines naturally divide themselves into three distinct steps in the descending scale. The first step includes the thirteen years from 1874 to 1886, and the average is \$8.25 per acre. The second step includes the six years from 1887 to 1892, and these averaged \$6 per acre. The third step covers the five years from 1893 to 1897, with an average of \$3.60 per acre.

The source of our present prosperity is certainly not apparent in any of these charts, judging by the face of the returns. The descending steps in Chart III

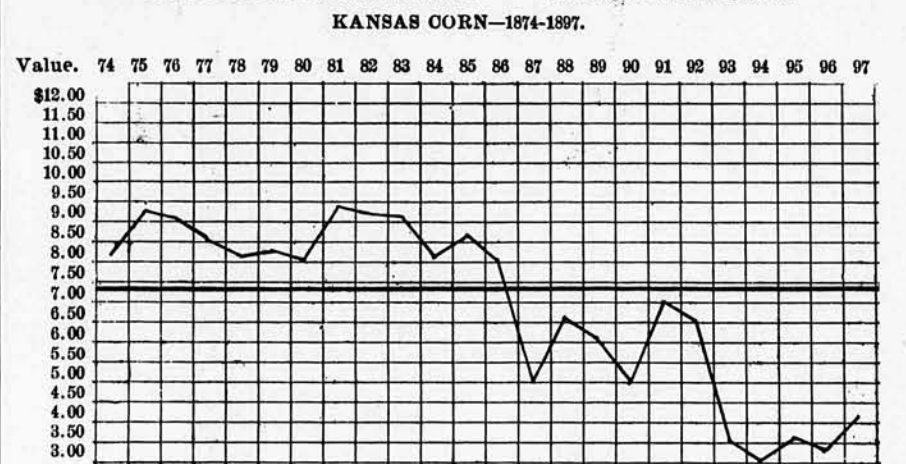
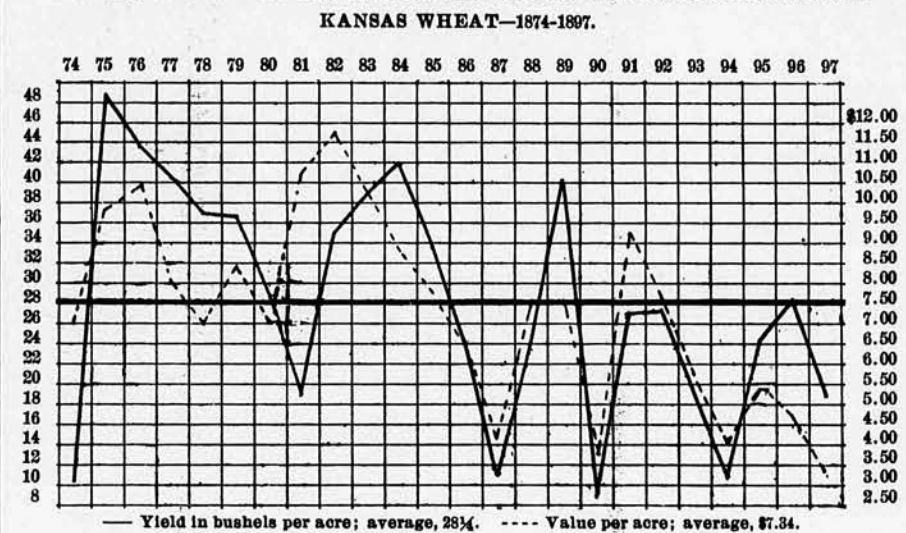
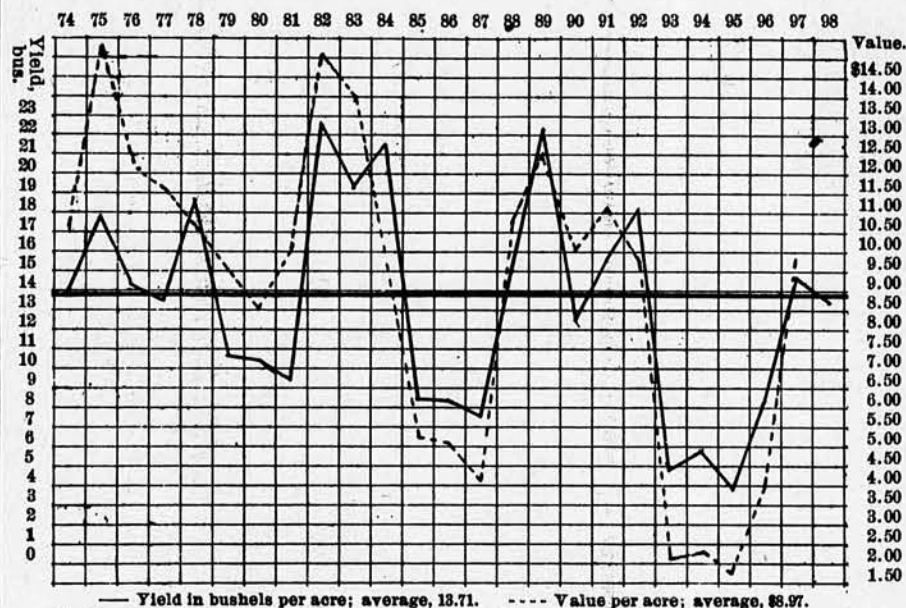
point to disaster rather than to prosperity, and yet, with an average of only \$4.12 per acre in 1897, the State gave evidence of its recuperative power and convalescence, which is in marked contrast with the six years ending with 1892, in which the average gross earnings of each acre in cultivation or used for hay was \$6 per acre or nearly 50 per cent. greater. If we are to get light on this apparently mixed problem it is evident that we will have to go "behind the face of the returns."

The ten years, from 1875 to 1884, covered the "bonanza" period in the history of Kansas crops. No other State in the Union during its history can show ten consecutive crops of wheat and corn on a large scale with so high an average as that of Kansas, and especially central Kansas, during this ten-year period. It

and all demanded their money as fast as their paper defaulted or matured. The eight years from 1888 to 1895 were years of debt liquidation. The great bulk of the net earnings realized from cattle and crops went out of the State, thus limiting the money circulation in local centers. With loss of credit and inability to retain earnings or a circulating medium, the shrinkage of both the real and imaginary values began.

The "boom" days created an appetite for luxuries. The years of debt liquidation enforced economy, which was greatly aided by the prohibitory liquor law of the State, that has done so much to establish its people in sober habits.

To meet the lessened yields and values per acre, the farmers not only strove to practice economy in their expenditures, but also to reduce the cost per acre so



VALUE OF ALL CROPS PER ACRE.

Average value per acre, \$6.81.

was the record of these five crop years, coincident with a highly profitable cattle industry, that brought immigrants into the State by hundreds of thousands between 1876 and 1887, rapidly enhanced the value of all lands throughout the State, and stimulated the building of both railroads and towns. The era of speculation in railroads, town lots and farms, that collapsed in 1887, had its origin in these prosperous years. The rapid increase in farm values whetted the appetite for more wealth. Farmers became speculators, the same as townspeople, and borrowed money freely for better improvements, for investment in pure-bred stock at the fancy prices then prevailing, and some for purchase of more land or town lots to be held simply for an advance in price that never came. When the true condition of affairs was brought to the attention of the non-resident creditors who had loaned freely to Kansans, they became panic-stricken

as to adjust themselves to the new economic conditions with which they were confronted. The greater purchasing power of money, the cheaper machinery and implements, and better tools for their purpose, helped them in adapting themselves to these new conditions. But the most prevalent means used to meet this end was to increase the area to be cared for by one man and team, in this way reducing the cost per acre. This cannot be commended, but perhaps was justified during this transition period.

The following tabulated statement, compiled from the crop statistics and census returns of the State Board of Agriculture for 1885 and 1895, shows in concrete form the extent of this increase in acres tilled or cared for by one person. The acres cultivated and prairie meadow lands are given separately and combined, and also the gross earnings for the State and for Douglas county, near east line, Republic county, on the

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.

north, and Sumner, on the south, on the east line of central Kansas, and Barton county, just west of the center of the State.

	Years	Acres cultivated, per hand	Prairie m eadow, per hand	Total acres	Gross earnings per acre
The State.....	1885	49.23	21.32	70.55	\$7.05
	1895	90.00	26.35	116.35	3.60
Douglas county...	1885	33.65	13.25	46.90	6.73
	1895	60.00	9.00	69.00	6.63
Republic county..	1885	52.00	11.00	63.00	7.65
	1895	93.50	26.75	120.25	1.50
Sumner county....	1885	45.75	16.75	62.50	6.30
	1895	80.00	27.00	107.00	1.65
Barton county.....	1885	63.00	5.25	68.25	6.87
	1895	106.40	28.40	134.80	1.52

It will be noted that in the eastern county the acres cared for by one man is smallest, and the variation in value of crop least. In Sumner and Republic counties we find the increase is from 75 to 95 per cent. and in Barton over 300 per cent., or 225 acres to each farmer or farm hand. Each acre receives the most thorough tillage in eastern Kansas, and the amount of labor expended grows gradually less westward. An acre in Douglas gets one-third more cultivation than one in Sumner, one-half more than one in Republic, and three times more than one in Barton county.

The census of 1885 reports 202,295 persons engaged in agriculture, and in 1895 185,394 persons. Estimating the population of farm workers in 1897 at 200,000, the following compilation will give the comparative earnings of each year for each individual from both crops and live stock products. The gross earnings per acre is repeated here for comparison.

	Gross Earnings.			Gross earnings per acre.
	Crops, per c'pita.	Live Stock, per capita.	Total, per c'pita.	
1885....	\$412.65	\$194.85	\$607.50	\$7.05
1895....	419.00	274.00	693.00	3.60
1897....	436.00	246.00	682.00	4.12

The acre earnings of 1895 are less than half of those of 1885, but the earnings for the individual are greater. In other words, the earning power of the acre has steadily declined since 1885, but the earning power of the individual farmer has increased rather than diminished.

Among the causes that have contributed to the decline in the earning power of the acre during the past twelve years we may name:

1. The larger area in cultivation—3,699,769 acres in 1874, 15,473,495 acres in 1886, and 21,015,157 acres in 1897.
2. Increase in percentage of upland acreage.
3. Relatively lower valuation of prairie hay than of other products of the soil.
4. Lower prices inducing effort to reduce cost by increasing the acres to be worked by one man and team, and the very large acreage carelessly farmed in consequence.
5. A higher percentage of farms occupied by tenants on one-year leases.
6. Decreasing fertility, and especially the loss of humus from the soil, resulting in diminished power to resist dry weather influences on land continuously cropped for twenty years or more. This cause will be still more apparent in future years if the present practice is continued.

(Continued on page 4.)

IS KANSAS PROSPERING?

(Continued from page 2.)

tinued, and is now a continual menace to better yields in the less favored seasons.

The reader will bear in mind that these acre values are based on market price, and include only the products of the soil. The fodder of the corn and the straw of the wheat play an important part in the economy of the farm, and yet these are not valued. And again, the market value of the corn, as given in these statistics, is not the price realized by the farmer. Kansas has little corn for export except when the crop exceeds 150,000,000 bushels. It is transformed on the farm into beef, pork, wool, mutton, dairy products, chickens, eggs, etc., and its value greatly enhanced. In 1897 it was undoubtedly doubled by this transformation.

Wheat, in the years when the yield per acre reaches or exceeds the average, brings wealth to the wheat counties of the State. Take for instance the three counties that produced the largest crops of wheat in 1897. The acre value of the 229,253 acres in Sumner county is \$13.60. Of the 184,077 acres in Barton county it is \$10.08 and of the 132,941 acres in McPherson county it is \$12.91. There is no question but that wheat added wealth to these counties in 1897 and will repeat it in a slightly less degree in 1898—and this is true of a majority of the central Kansas counties in proportion to their acreage. We must therefore credit part of the improved conditions of to-day to the wheat crops of 1897 and 1898. But,

—farmers who have made money selling their grain off the farm, without the aid of stock—and again very many farmers who have barely made a living in the short crop years. Neither Kansas soil or Kansas climate are responsible for the low averages of the past ten years. If all the land under cultivation had been as well handled as it was by the best tenth of the farmers on the average of soils in each county, the yield per acre would have been more than doubled in the low yield years and greatly increased in the high ones, and this increase would have been secured at less cost per bushel. Kansas acres are evidently calling for better tillage and better treatment. The average yield is an earnest protest against continuous soil robbing that the farmer must heed. The renter, who has no interest to earn or taxes to pay on the land he cultivates, may make a living by securing a small yield on a larger acreage, but the land owner must have higher returns from the acre, and to secure this he must treat his land and cultivate his crop much better than the average man does.

Among the local causes that have contributed to the recent depression through which Kansas has, we believe, safely passed, we may name, excessive indebtedness and being under pressure all the time to pay it off; living for a time beyond our means; depression in the cattle industry, 1884 to 1894; small returns from the pastures and feeding of the roughness on the farm.

Among the causes that have helped to

Gossip About Stock.

J. R. Killough & Sons are offering some bargains in choice Poland-Chinas.

V. R. Ellis, of Gardner, Kas., founder and present owner of the Norwood Short-horns, carries an advertisement in another column.

J. A. Judd, of Stanberry, Gentry county, Missouri, will make a closing-out sale of Poland-China hogs at his farm, October 20. This will be absolutely a closing-out sale, as Mr. Judd has engaged in other business which demands his entire time and takes him away from his farm. Iowa Chief, Hadley 2d, Star Tecumseh and Looks Chip, four great herd boars, go in this sale without reserve or collusion of any kind. Full particulars will be given in due time.

One of the most desirable sales of Poland-China hogs will be held at Lyndon, Kas., Monday, September 26, 1898, by F. L. & C. R. Oard, of Vassar, Kas. (note illustration in this issue of their herd boar, Model U. S.). Their offering consists of fifty-eight head, the breeding of which shows the very best known Poland-China, viz., Old Black U. S. If Old Black U. S. was a great hog, why would not a concentration of his blood in Model U. S. 18855 produce a greater hog? Chief Tecumseh 2d, Latest Fashion, What's Wanted Jr., Chief I Know and Sir Charles Corwin, Sunny Slope farm. The Oard Bros. say: "We have endeavored to choose those from families that have the popularity of producing the



"Why Women Cannot Sleep."

The highly organized, finely-strung nervous system of women subjects them to terrors of nervous apprehension which no man can ever appreciate.

The peace of mind, the mental poise and calmness under difficulties, which is necessary for happy womanhood is only possible when the sensitive feminine organism is in a perfectly healthy condition. If there be any weakness or derangement in this respect no remedy in the world so completely restores womanly health, nervous vigor and capability as the wonderful "Favorite Prescription" invented by Dr. R. V. Pierce, chief consulting physician of the Invalids' Hotel and Surgical Institute of Buffalo, N. Y. It purifies, heals and strengthens; insures functional regularity; provides physical reinforcement and sustaining power at periods of special weakness and depression.

It is the only medicine which makes the coming of baby safe and comparatively easy. In a personal letter to Dr. Pierce, Mrs. Marguerite Collin, of Cutler, Algoma Co., Ont., says:

"I was a sufferer and was cured by Dr. Pierce's wonderful medicine. When I commenced the medicine I could neither eat nor sleep. My hands and feet were constantly cold; I had a wasting, troublesome drain for three months, and my monthly periods were never regular. I took Dr. Pierce's Favorite Prescription and it cured me. I feel well. I thank the World's Dispensary Medical Association."

B. & B.

Send for Samples.

Goods and prices will do the plain, forceful talking that will show you more about where you'll save money buying your Dry Goods than a page full of ordinary talk would.

It's goods and prices this store makes count.

Get samples 38 to 42-inch all-wool Black Jacquards, 35c Yard. See what difference, if any, between these and what you're asked half a dollar for most places.

Line of all-wool Dress Goods, 32 inches wide—other stores ask 25c—our price 20c Yard. Neat mixtures and small checks; 24 different color styles.

Write for samples fine new Dress Goods, 50c, 75c, 85c, \$1—price range runs to \$6. Greatest Dress Goods stock we've ever offered.

New, rich, fancy Silks—65c—we'd like you to note the elegance of and compare with what 75c and 85c is asked for. Other new novelty silks, 50c to \$3.

Samples cost you nothing.

Send your name and address early for new illustrated catalogue now being published.

BOGGS & BUHL,

Department G. G. Allegheny, Pa.



ON THE BIAS.

That's the secret of the 5/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.

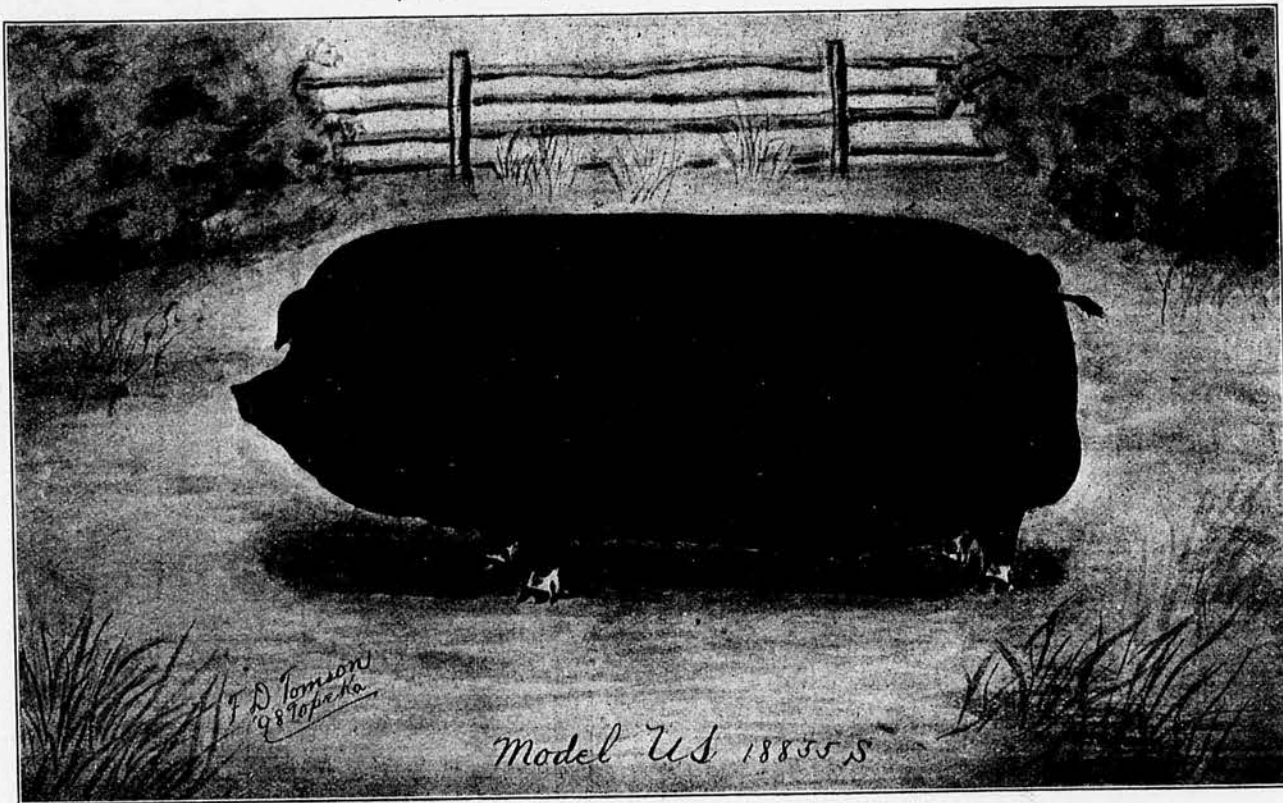
5/A Bias Girth

Horse Blankets are made in all styles—to fit any horse—to suit any purse. Ask your dealer for 5/A Bias Girth Blankets, and look for the trademark. A book on the subject sent free. WM. AYRES & SONS, Philadelphia.



CARMAN.

Earlier than Elberta; skin tough a good shipper. Consult our budding list of Peach Trees (over 1,200,000) 60 varieties; Apples, Strawberry Plants, Plum and Apple Trees. Send for catalogue. HARRISON'S NURSERIES, Berlin, Md.



Hedgewood Herd Header, Owned by Oard Bros., Vassar, Osage Co., Kas. First Annual Sale at Lyndon, Kas., September 26, 1898.

after all, the condition of the cattle industry is the truest barometer of Kansas' financial condition and real prosperity. It reached its zenith about 1882-1883. Stockmen commenced unloading the accumulated surplus on farm and range in 1883, and prices steadily declined till 1890. Then followed four years of recuperation at low prices, in which careful feeders made and lost and breeders scarcely realized cost. This was the bed-rock period in the cattle industry. The year 1895 marked the beginning of the upward tendency, which has been increasing, with occasional relapses, ever since. The cattle industry is now in a highly prosperous condition. Cattle and hogs are doubling the market value of all the corn they consume. They are increasing the value of the fodder crops. They are getting millions of value out of the corn fodder and corn stalks and nearly 20,000,000 acres of fenced pasture land not included in Secretary Coburn's crop valuations. They enter largely into the small economies now practiced, and, by consuming what was formerly waste products, have converted them into profit.

Wheat manifests its presence promptly in the swelling bank account; but live stock gradually accumulates wealth on the farm. It is not so apparent as wheat returns but it is none the less real. Live stock products represent one-third of the value of the entire products of the farm, and live stock, intelligently handled, may so utilize the products of a short crop year, as to make the crop a source of profit when it would have been loss if sold on the open market.

This article has dealt only with averages—with the average farmer. But there are farmers and farmers—farmers who have made money all of these years

better conditions to-day we mention, enforced economy since 1888; the reviving cattle industry since 1894 and good returns from hogs and sheep, dairy products and chickens, through the entire period; the wheat crops of 1897 and 1898; doing business to a greater degree on the earnings of the farm instead of on borrowed money; living within our means.

With the better and cheaper tools and machinery, cheaper freight rates, the greatly lessened cost of pork production since the introduction of red and alfalfa clover pastures, and all classes of live stock giving value to all the pasture grasses and fodder crops, Kansas can look forward hopefully to the years immediately before them. Even an occasional short crop year need not discourage them if they make the right use of the resources at their command.

It is certainly hopeful also for better values for Kansas lands if we can enjoy prosperity on an average crop value of \$4.16 per acre, when these same acres, under like conditions, can, by proper cultivation and management, be made to produce crops annually that will average \$6 to \$7 in gross earnings per acre.

The great pressing need of Kansas agriculture to-day is crop rotation and soil restoration for those lands that have been in cultivation over fifteen years and have lost their "calf fat," or humus, so essential for the retention of moisture, prevention of baking and blowing of the soil, and unlocking the fertility which nature has so prodigally stored in our Kansas soils.

TO SAVE YOUR DIGESTION
Use "Garland" Stoves and Ranges.

Mention Kansas Farmer to advertisers.

best hogs, and by selections we believe that our stock will grow more valuable each year. And now, fellow breeders, we invite you to come and see the grandest lot of yearling and mature sows, spring boars and gilts that was ever put in one sale in Kansas."

The Manwaring Bros., of Lawrence, are advertising their Berkshires in another column. The herd contains several prize-winners. The foundation stock was secured from the principal Iowa and Kansas prize herds. The herd numbers now about forty head, with a large crop of pigs expected this fall. The Messrs. Manwaring have fine equipments for breeding swine and thoroughly understand the value of feed and shelter. They are also offering fifty finely-bred Silver-laced Wyandotte chickens.

At no time in recent years has there been a more important public sale of Herefords than that announced elsewhere in this issue by the well-known Hereford breeder, Mr. K. B. Armour, of Kansas City, Mo. All interested in the best of registered Herefords will find on consulting the pedigrees found in the sale catalogue that no better blood has been commingled by any American or foreign breeder. It is well known that it has been for several years the ambition of Mr. Armour to be regarded as one of the best breeders of white-faces in this country. This is very strongly confirmed by two leading facts, viz.: That he has spared neither time nor means in securing the best both in this country and England and that it is his settled policy to continue right along endeavoring to have his cattle, both in breeding and individually, the peer of any. A very prominent feature concerning the offering is that out of the 110 head, thirty-

The Cowy Odor



which is so prominent in much of the dairy butter, and which is so offensive to many people, is the result of dirt—real fine dirt that can't be strained out. The

LITTLE GIANT SEPARATOR

takes out all the dirt, produces a perfect flavor and greatly increases the product. It is the safest, easiest cleaned, and requires less repairs than any small separator made.

P. M. SHARPLES,
Elgin, Ill.
Omaha, Neb.
Dubuque, Iowa.

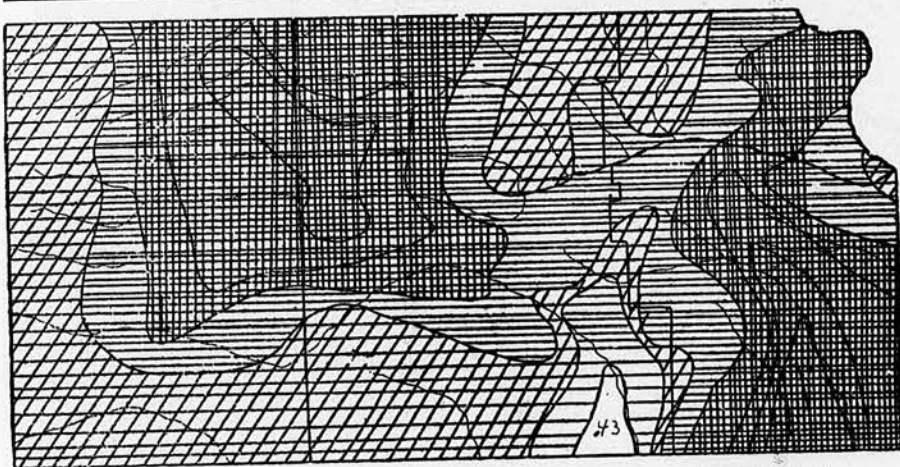
five bulls and seventy-five cows and heifers, there are seven imported bulls and twenty-eight English-bred females which will afford an opportunity to secure blood other than American to cross with. Incidentally it might be mentioned, too, that many of the cows will have calves at foot and all of the females except four are matured cows or heifers in expectancy. The reader is very cordially invited to write for a free copy of the sale catalogue wherein is given full and complete details concerning the sale.

Mr. W. B. Van Horn, of Lawrence, starts his regular advertisement this issue. Mr. Van Horn maintains a herd of Poland-Chinas with the leading blood lines represented. The leading herd boar is Combination Model 20112, assisted by Hadley I Know, dam Maud Hadley, a granddaughter of the World's Fair win-

by me for my own use. Most of the Shires are his get. All of the Hackneys are sired by three horses, all imported. We think any gentleman wishing to purchase a carriage team, or a single driver, can find what he wants at this sale. The cattle sale will be held on Wednesday, October 19, and the horses will go on Thursday, the 20th.

W. P. BRUSH.

The forthcoming combination sale of Poland-Chinas at Hutchinson, on September 27, 1898, is one of more than ordinary importance and should attract breeders and farmers generally. The offering consists of the closing-out of Thos. H. Foley's Superior herd, established in 1891, out of which herd fifty-five will be selected out of over 100 head. Three herd boars by Chief Tecumseh, two Hidestretcher and Hadley Jr. Twenty-one sows and gilts, 1 year old and over, bred for fall litters. Sows by Greenwood, Tecumseh Wilkes, Low Down Tecumseh, Cash Price, King Hadley, Longfellow Jr., Lawrence Perfection, Darkness Quality, C. J. Free Trade, Guy's Unfortunate, and other sires whose names are familiar to all breeders. The consignment from S. W. Hill's Crescent herd will consist of gilts and males by Guy's Darkness, a winner at State fairs in Kansas, Oklahoma and Texas, in 1896, and Best Nims by Best on Earth, by sons of Black Chief, Hands Off, Chief Tecumseh 2d, Klever's Model, Black U. S. and other boars whose blood is in the front ranks. A recent letter informs us that the animals are in nice form and there will be some very fancy boars ready for service, sired by Hands Off, Black Chief, Black U. S. and Chief Tecumseh 2d and Princeton Chief, all certain star attractions. Messrs. Hill and Foley are anxious to have the presence of as many breeders



SCALE LESS IN INCHES THAN 1/2 1 2 3 4 5 6 T TRACE
ACTUAL RAINFALL FOR WEEK ENDING SEPTEMBER 17, 1898.

ner Hadley. Mr. Van Horn sold forty pigs at private sale in Douglas county last year at an average price of \$15 per head. He offers twenty boars for the fall's trade, sired by such boars as Combination Model, Look Me Up by Look Me Over, and Tecumseh Short Stop. His aim has been in breeding to secure size and bone as well as finish.

THE PONTING PUBLIC SALE.—All breeders interested in pedigreed Herefords, also Hackney and draft horses, will note with pleasure the Tom C. Ponting & Sons' announcement elsewhere in this issue. The Hereford herd was founded in 1874, from which the draft of seventy head—forty young cows and heifers with thirty bulls that will be sold—are descendants. The sale catalogue, which is sent free to all that desire it, shows that these offerings are backed by as good pedigrees as is found in white-face lore in this country. As Mr. Ponting, Sr., is quoted as saying: "I defy any man in the United States or England to show a better bred lot." That the herd is handled so that the prospective buyer may depend on a sure future usefulness, Mr. Ponting states: "As for breeders, I bred 110 head last year, and every one got with calf. The cows are kept out in the pasture, and not loaded with fat. We do not keep any nurse cows whatever." There are twenty-eight head of Hackneys and twenty draft animals. Notwithstanding that the horse industry is picking up after its period of quiet, the Messrs. Ponting say of them in their catalogue announcement: "Our cattle interests have increased so rapidly the last few years to such an extent that we cannot breed horses and cattle too, in a satisfactory manner. After deliberately considering the matter, we have decided to sell out our entire lot of Hackneys and part of the Shires. Although we think this a good time to breed horses, yet we cannot take care of them. Included in the draft horses will be a Shire stallion, imported

as possible, whom they will entertain at the Brunswick hotel. Any persons unable to be present can send their bids to either auctioneer, care Brunswick hotel.

WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service for the week ending September 19, 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 cool week, the temperature being cold at the beginning, normal at the close of the week. Fine rains on four days, being heaviest in the northwestern and southeastern counties, reaching 7.08 inches in Wilson county and 7.25 inches in Rush, and less than one inch in the lower Arkansas valley. A general thunder storm occurred on the 16th, with hail in Sheridan, Mitchell, Woodson, Greenwood and Elk.

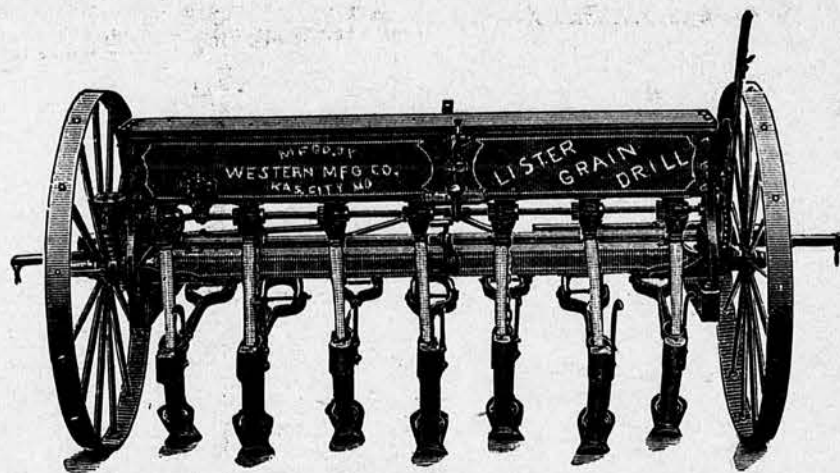
RESULTS.

EASTERN DIVISION.

A favorable week. The ground is now in fine condition in all parts of the division and plowing and wheat-sowing are in progress. The early-sown wheat sprouting in Coffey. Pastures and stock water have been freshened. Corn-cutting is about completed in the south, but the corn is a little green yet in the north. New corn is coming into the market in the south. Winds, followed by rain, damaged hay stacks in Coffey and Leavenworth counties.

MIDDLE DIVISION.

The ground is now in fine condition in all parts, except a little dry in Sedgwick, and plowing and wheat-sowing are in progress except in Rush, where it is too wet. Early-



THE NEW HOLLINGER LISTER DRILL.

For the past three seasons this implement has been in practical use in Kansas and Colorado, and last year met with such an unprecedented sale that it was impossible to supply the demand, but this season the manufacturers will be able to fill all orders. The drill is made in two sizes, with seven and eight hoes. It consists of a series of small plows with double mold-boards, throwing the ground in ridges. These ridges being higher and broader than those made by an ordinary drill, form a protection to the young and tender wheat plants, preventing their destruction by "freezing out" in winter, and also keeping the wind from blowing away the earth from their roots in the spring.

It is well known that there is more wheat lost during the "windy month of March" from the alternate freezing and thawing than at any other time of the year, especially in the States of Kansas and Nebraska, where high winds and dry springs are not uncommon. At such times it is that the advantage of the New Hollinger Lister Grain Drill is most clearly shown. The ridges made by the Lister Drills catch and hold the particles of soil, which would otherwise be blown away from the roots of the plants, as is often the case where the ordinary drill is used.

The same advantage is gained in winter, the furrows made by the drill plows being so low as to catch and hold the drifting snow, thus covering and protecting the wheat during the severe storms and freezing weather.

The plows on this drill, which are really small "listers," are placed twelve inches apart instead of eight inches, as on the common drill, which causes much higher ridges to be formed, thus more efficiently protecting the grain.

A spreader is used at the rear of each plow which distributes the grain in the furrow from three to three and one-half inches instead of a single, narrow row, as is done by other drills, thus covering the ground to within two and one-half inches as closely as is done by the ordinary drill.

Another great advantage gained from the way in which the ground is continually fed the lister is that fresh earth is continually fed to the plant as the season advances, by the action of the rain and wind gradually leveling the ridges and filling up hollows where the wheat is growing.

Still another great advantage to be gained by the use of this drill is that it renders it possible to cultivate the growing crop in the spring. When the wheat is about six inches high it can be harrowed in the same direction as it was drilled, with most excellent results. It is well known to be the practice to cultivate wheat in England where it is known to pay. Why can we not do the same here and make it increase our yield?

One more great advantage is the fact that with this implement fall and spring grain can be listed in without plowing, thereby saving the farmer valuable time when this is most important, as well as the cost of

plowing, in itself a considerable item. Wheat sowed with this drill was never known to rust.

Old wheat-raisers who have used this drill say there is nothing like it, as it does its own plowing and seeding at the same time. The manufacturers are anxious to have as wide a distribution of the drill this year as possible, feeling confident that one drill in a neighborhood will sell many more another season. They are therefore offering special inducements for present purchasers. For any information, address Western Manufacturing Co., Kansas City, Mo., or call on any of the following list of dealers, who are handling the implement this season:

J. A. Quinn, Oberlin, Kas.
C. F. Monteith, Selden, Kas.
Walker Impt. Co., Goodland, Kas.
J. H. Williams, Rexford, Kas.
J. F. Rowe, Hill City, Kas.
Geo. Tribble, Palco, Kas.
G. W. Davis, Brownell, Kas.
Hopper Hdw. Co., Pratt, Kas.
C. G. Cochran, Plainville, Kas.
G. S. Welling & Co., Natoma, Kas.
J. Alcott, Colby, Kas.
L. A. Jordan, Winona, Kas.
Tallman Bros., Monument, Kas.
Ackerman & Copeland, Russell, Kas.
J. J. Forney, La Crosse, Kas.
Holton Hdw. Co., Dighton, Kas.
Jno. A. Koontz, Leoti, Kas.
J. J. & W. F. Muenzenmayer, Junction City, Kas.
Snyder & Snyder, Oakley, Kas.
J. B. Beal, Grainfield, Kas.
I. M. Yost Milling Co., Hays City, Kas.
H. C. Street, WaKeeney, Kas.
J. H. Batka, Andale, Kas.
F. N. Williams, Smith Center, Kas.
Hodge Bros., Abilene, Kas.
Eugene Hunter, Riverton, Neb.
A. B. Lafferty, Alma, Neb.
W. P. Finger & Son, Sawyer, Kas.
Wichita Falls Impt. Co., Wichita Falls, Tex.
J. H. Eichelberger, Hope, Kas.
Beaver Valley Hdw. Co., Herndon, Kas.
W. J. Heiney, Gove City, Kas.
Ross & Waldo, Ellis, Kas.
B. D. Hotchkiss, Atwood, Kas.
J. H. Dupree, Plains, Kas.
Ezra E. Thompson, Ashton, Neb.
M. R. Harris, Holdrege, Neb.
Christesen & McQuillan, Minden, Neb.
E. R. Carney, Hill City, Kas.
E. W. Parker, Wilsonville, Neb.
J. R. Swartzel, Caldwell, Kas.
Great Bend Impt. Co., Great Bend, Kas.
P. J. Leonard, Lenora, Kas.
Frank Colladay, Hutchinson, Kas.
R. F. Stephenson, Oakley, Kas.
S. B. Chapman, Aurora, Neb.
Ferguson Bros., Kingman, Kas.
A. N. Wallace, Wichita, Kas.
Bulst & Dougherty, Cawker City, Kas.
Frizzell Hdw. Co., Larned, Kas.
Chas. Easton, Jennings, Kas.
A. O. Fisher, Kinsley, Kas.
John Garvin, Stafford, Kas.
J. A. Fehr & Co., Arlington, Kas.
Albert Still, Woodston, Kas.
T. H. Shive, Vernon, Tex.

Administrators' Sale of Real Estate.

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

1. The "Home Place," w. hf. of nw. qr. sec. 26, and e. hf. of ne. qr. sec. 27, t. 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, 5 acres alfalfa, remainder pasture land, timber land and creek, all well and conveniently fenced. Price, \$8,000. Terms, one-third cash, one-third in two years and 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 Burlingame 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.

CHAS. F. SPENCER,
Administrator, with will annexed, of said estate.

MICA lightens
AXLE the
GREASE load—
shortens the
road.

Makes the wagon pull easier,
helps the team. Saves wear
and expense. Sold
everywhere.

Anyone Interested
in AGRICULTURAL PURSUITS can't
afford to be without the
AGRICULTURAL EPITOMIST.

Sample copy FREE to ANY ADDRESS
upon receipt of name and address
plainly written on postal card naming
paper in which you saw this ad. Address
AGRICULTURAL EPITOMIST, Indianapolis, Indiana.

The Home Circle.

MORTALITY.

We cannot kindle when we will
The fire which in the heart resides;
The spirit bloweth and is still,
In mystery our soul abides.
But tasks in hours of insight will'd
Can be through hours of gloom fulfill'd.

With aching hands and bleeding feet
We dip and heap, lay stone on stone;
We bear the burden and the heat
Of the long day, and wish 'twere done.
Not till the hours of night return,
As we have built do we discern.

Then, when the clouds are off the soul,
When thou dost bask in Nature's eye,
Ask how she viewed thy self-control,
Thy struggling, task'd mortality—
Nature, whose free, light, cheerful air
Of made thee, in thy gloom, despair.

And she, whose censure thou dost dread,
Whose eye thou wast afraid to seek.
See, on her face a glow is spread,
A strong emotion on her cheek!
"Ah, child!" she cries, "that strife di-
vine,
Whence was it, for it is not mine?"

"There is no effort on my brow—
I do not strive, I do not weep;
I rush with the swift spheres and glow
In joy, and when I will I sleep.
Yet that severe, that earnest air,
I saw, I felt it once—but where?"

"I know not yet the gauge of time,
Nor wore the manacles of space;
I felt it in some other clime,
I saw it in some other place;
'Twas in the heavenly house I trod,
And lay upon the breast of God."
—Matthew Arnold.

SAILORS WHO RE-ENLIST.

On the day after his enlistment for a period of three years the American man-o-war's man begins to figure on the amount of time that is to intervene before his discharge. He has two years and a "butt" to do, the "butt" being the remaining eleven months and twenty-nine days of the first year. On the day following his completion of the first year of his enlistment he has only a year and a butt to get through. No matter if the butt is only a single day under a year in length, the bluejacket contemplates the term with the blandest complaisance; it is not, at any rate, a whole year, even though it be 364 days, and this fashion of throttling each year of his service makes him happy; it seems to bring his discharge, and the more or less tempestuous joys he carefully maps out long before his discharge, within closer range. When he has put in eighteen months of an enlistment, he breaks out the homeward bound pennant; he is going down the hill, and when he has finally achieved two years and has only the butt to accomplish joy fills his cup.

"Once a sailor, always a sailor," is not strictly true of men-o-war's men of the American navy. Only about one-half of the men who complete one enlistment ship for another three year cruise. But about nine-tenths of the men who put in two cruises settle down to a life-long continuance in the service. Six years of navy life seem to thoroughly inculcate them with what the Germans call wanderlust. When a bluejacket passes a few of his summers in the latitude of the North Cape and a couple of his winters down among the Bermudas or in the salubrious South Pacific, he is likely to acquire a dislike for the climate of the United States, and this dislike has more weight than anything else in forming his decision to remain in the navy. Moreover, after a few years in the navy the bluejacket seems to become possessed of the odd idea that he is really doing nothing aboard ship to earn his pay, that the perpetual scurry in which he is kept from all hands in the morning until pipe down at night is really not work, and with this quaint notion he also acquires an exceedingly exaggerated idea of the terrific amount of grinding labor a man has to perform in order to gain a livelihood ashore. Put to a bluejacket who has put in a couple of naval cruises the direct question, "Are you going to 'ship over' when your time is out?" and in nine cases out of ten he will look you in the eye with an expression of stupefaction and inquire: "What do you think I am going to do—work?"

Overtime men being shipped back to this country on a man-of-war are not compelled to do any of the ship's work; they simply stand the military calls, eat their meals and smoke their pipes, watching the while with lazy happiness the daily round of labor of the less fortunate bluejackets attached as members of the crew of the ship on which they themselves are practically passengers. The overtime men occasionally emit arrogantly humorous directions to these temporary shipmates, the ship's company of the boat that is hauling them home. "G'wan, now, an' shine up 'dat bright work, ye long time swab!" they

will shout to a deck hand when the officer of the deck is aft and out of hearing, and "Git down to your bunker, ye grimy flatfoot, and rake out your coal!" is the kind of thing the man of the black gang below hears the "passengers" pipe on the to-gallant fo'c'stle.

One of the immemorial customs of the navy jacks is to secrete in the ditty bag of the discharged shipmate who is about to go ashore a can of corned beef, a few potatoes, and, perhaps, one or two other articles of sea food. This is done in order to remind the discharged man, when he opens his bag ashore, that in the opinion of his shipmates he will be unable to earn enough to eat on land, if he takes it into his head not to ship over, and that they have, therefore, taken a small measure to shield him from starvation with a little navy grub when he has "spent his pay day." Discharged men try all sorts of schemes to keep this stuff from being placed in their bags, but, nevertheless, they nearly always find it there when they get ashore.—Washington Star.

The Star of Sweden.

Christine Nilsson, otherwise the Countess de Casa Miranda, seems to be surfeited for the time being with the gaming tables at Monte Carlo and has gone back to Sweden and the land of her childhood. The last week of July she went on a visit to the little home of her father, called Snugge, in the parish of Vedersloefs. Many of her relatives came forth to greet her with full hearts and empty hands, but their welcome was warmer than she has received at many a grand entertainment. From Snugge she went on to the village of Gottlosa, and put up at a small inn kept by an old friend. Forty years had passed since she left her friends, playmates and the frugal but happy friside of her youth. On coming to the little hostelry, in the garden of which she sang as a child for a few coppers, and where she bashfully passed through the parlors years ago extending her wistful little hand to each of the guests in turn, the tears came to her eyes. "Look," she sobbed; "there is the same little sofa on which sat the old gentleman whose hand and heart never said no to my itching palm." She walked the streets of the little village of Wislandet now, not as the street singer, but an honored guest.

"There," said she, "near yonder huge stone was a spring, and I must taste its water once more. Here the old women of the village took the water and made that delicious coffee. I can taste it, smell it now. I remember it as if it were but yesterday." She spent the night at the old inn and once again slept in the old-fashioned folding sofa that her mother used to arrange for her when beds were fewer than the family's needs. The next day she went to Lofhult, where long ago her father labored as a farm hand. Her father took her with him to the market held at Vernamo, and her singing on the street brought in more money than the honest farmer's butter.

In her old home she found many changes. The beech trees that sheltered the path to the cottage have been removed, but in the field still stood the May-pole. Here she gave to all her old acquaintances generous gifts.—Chicago Record.

Crossing a Spanish Military Trocha Under Fire.

While we were at La Esparanza it was decided that General Menocal, who is a graduate of Cornell, should leave with a force of 200 volunteers to try to cross the trocha and get to Gomez. No force had as yet crossed it on horseback. The General invited me to join his troopers, and on June 30 we set out.

The following day, before the sun was up, we resumed the march, stopping at Las Piedras at noon for breakfast. At 2 o'clock in the afternoon we were again in the saddle until half past 5, when we halted in a sabaneta (small prairie) a mile distant from the Spanish military line, in order to feel for the enemy and profit by the last rays of light. After dusk we mounted in silence, and marched 500 meters nearer the enemy. Instead of having a cloudy sky to protect us, the stars came out, and we were soon face to face with the question of victory or defeat under these disadvantageous circumstances.

Soon, breaking the silence of the night, we heard at a distance the baying of bloodhounds, the "alerta" of the sentinels, and the notes of the Spanish bugles as they sounded evening retreat. The fateful moment was at hand. Who knows or can tell the ideas that succeeded each other rapidly in the minds of the 200 men hiding and moving along by stealth? I can only say that in my immediate group, instead of sadness, we suffocated our laughter, cracked jokes,

and commented on past and future events with real "mamby" (Spanish name for the insurgents) good humor under our breaths. Five minutes, and then came the order, "Silence and mount!"

The column advanced slowly. The night allowed one to see distinctly forty meters ahead, but the men on white horses could be seen at from fifty to sixty meters. Soon we saw in the fence a breach seven yards wide through which we might pass without becoming entangled. Five men and half an hour's work had done the work of opening it. The line of march was in single file. First there was an advance picket of four men; then came General Menocal with the chief of his staff and aides, and twenty-five men of the escort. After them there was a group of chiefs and officers, at the head of which we marched. We were followed by a squadron of cavalry, behind which was the pack-train.

When the head of the column arrived at the railroad line, after having gone in a roundabout way, through the mistake of one of the guides, and when we were at the place on our path which was nearest the fort, there came the loud challenge from a vigilant sentinel:

"Alto! Quien vive?" (Halt! Who goes there?)

At once the Cuban infantry, which had been placed to the right and left of us, began firing. It was answered immediately by the Spaniards, who extended the shooting all along the line for two miles, and we received it from eight forts. The bullets swept toward us from all quarters, sharp and continued; probably 4,000 rounds of ammunition were discharged. Having received orders not to respond, we moved on slowly and as quietly as possible. It seemed as though we had fallen into an ambush. The horses began to get restless, and from the slow walk soon changed to a canter. A few cowards turned back, causing great confusion among the pack-mules. But the rest continued their determined advance under the cross-fire of the Spanish rifles, and when we arrived at the edge of the woods we halted to wait for those who were yet behind.

We had forced our way through the military trocha of Jucaro-Moron, the first force to have done so since it had been strengthened.—Harper's Weekly.

The Care of the Hands.

One of the girls' most emphatic arguments against doing housework is the belief that it is impossible to keep the hands in a presentable condition. It is true that nothing more effectually destroys the beauty of the hands than washing dishes and making fires. But what's the matter with wearing gloves?

Here, of course, the would-be white-handed young lady rises up to say, ungrammatically, but emphatically, that she "won't be bothered." If she will not, of course she must either elude the housework or put up with rough, hard hands. It is no great trouble, however, to don rubber gloves when washing dishes, cleaning vegetables, etc., and practice will enable her to work as expeditiously with them as without them. They do not cramp the hands; they last a long time, and the price is not exorbitant. When sweeping, dusting, making beds, fixing fires, old kid gloves are excellent. It takes but a moment's time to put them on and off, and a habit is soon established.

A well-kept, shapely hand is a beauty; it is more, it is a comfort to its possessor. Who wants the discomfort of chaps and cracks and blisters? These interfere with fine needlework, make the fingers stiff and awkward on the piano keys or with the paint brush, not to mention

the physical pain they give. Nor is it a mark of vanity to like to have a well-kept hand. It is merely an indication that a girl, knowing the advantages of a pair of decent hands, elects to take the necessary trouble to keep hers in order rather than endure the disadvantages.

Much of the fine texture of the hands depends on the manner in which they are washed and wiped. Especially is this true in winter, when want of care in drying them is sure to result in roughness. Wipe them perfectly dry at all times, till not a vestige of dampness remains. Warm water is better than cold, and any pure soap will do. It is best to choose a soap that seems to suit the skin, and then use it always. After the hands have been in soap-suds a little lemon juice or a few drops of vinegar will kill the alkali of the soap and tone up the skin. Lemon juice whitens the hands, but makes them tan more easily; a little glycerine with it softens as well as whitens. Washing in oat meal water also softens and whitens. Borax softens hard water, and a little package of it—a quarter pound of the powdered at 5 cents—should be on every wash-stand. It is very useful in many places.

If the hands are red, something impedes the circulation of the blood. Perhaps the corset is too tight. It is possible that the arm-holes of the dress or corset cover are too small, or the shoes may be too tight.

A manicure scissors, a nail cleaner and file, the little stick of orange wood with which the cuticle is kept pushed away from the nail, should be on every toilet table. With them one may be her own manicure.

It should hardly be necessary to say the hands should be kept clean. And yet how many dirty fingers we see! How many hands with deposits under the nails! A woman, well dressed in every other respect, is often seen with dirty finger nails.

Any one, no matter if she does her own work, may have good-looking hands if she will give them proper care and attention. She will have to take pains with them, but there are few things it is pleasant to have in this world that do not give us some trouble to secure.—Detroit Free Press.

Aphorisms.

The greatest firmness is the greatest mercy.—Longfellow.

By ignorance thy choice where knowledge leads to woe.—Beattie.

Nothing more detestable does the earth produce than an ungrateful man.—Ansonius.

If honesty did not exist, we ought to invent it as the best means of getting rich.—Mirabeau.

Good manners are a part of good morals, and it is as much our duty as our interest to practice both.—Hunter.

There are many ways of being frivolous, only one of being intellectually great, that is honest labor.—Sydney Smith.

No man ever did a designed injury to another but at the same time he did a greater injury to himself.—Home.

What right have we to pry into the secrets of others? True or false the tale that is gabbled to us, what concern is it of ours?—Bulwer.

Nothing sharpens the arrow of sarcasm so keenly as the courtesy that polishes it. No reproach is like that we clothe with a smile and present with a bow.—Chesterfield.

He is the wisest and happiest man who, by constant attention of thought, discovers the greatest opportunity of doing good and breaks through every opposition that he may improve these opportunities.—Doddridge.

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The Young Folks.

THE HOMES UNDER THE WALK.

"Our homes are gone," hissed the snake to the toad.

"Our home, too, is gone," buzzed the bees, "Just because a visiting gray-eyed boy Must investigate what he sees."

"He found me out," panted the fat, old toad.

"Though I lay 'neath the walk real still, And he made me hop, and hop, and hop, 'Till I bloated, I felt so ill."

"He saw us bees tasting his sugared bread, And followed us back to our nest Under the planks; then he poked it with sticks, I am sure you can guess the rest."

"And though of court-plaster a full square inch He shows on account of our stings, We've been drenched and soaked," bumbled one old bee.

"And have naught now to trust to but wings."

"I heard him next day," puffed the homeless snake,

Saying, "Two bees' stings two times are four,

And two times three bees' stings are six times I know,"

As he sat on the walk near the door;

"So I thought it full time to move further off,

But he seized me when half through the crack,

And squeezed me to make me put out my forked tongue,

While his grandma screamed herself black;

'Drop that horrid old snake, and quickly,' said she;

Insulted, I wriggled away

To see every board taken up, carted off,

And all the walk graveled that day."

"Our beautiful homes are destroyed," wailed they,

The snake, and the toad and the bees,

"All because one small boy whose years are but six

Must investigate what he sees."

—Detroit Free Press.

Written for Kansas Farmer.

YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 39.

HEIDELBERG.

It was late in the afternoon of June 22 when we started for a fifty-mile ride by cars to the famous university town in the valley of the Neckar.

Our route lay through the province of Hessen-Darmstadt into Baden. We passed through the cities and towns of Darmstadt and Eberstadt, Heppenheim and Gernsheim, Zwingenberg and Ladenberg, before we reached Heidelberg; so, you see, the "stadts," the "helms" and the "bergs" are about equally divided in a fifty-mile journey in that part of the world.

But whatever the names may be, the scenery along the railway was beautiful and we enjoyed our ride very much. It was quite dark when we reached the end of our journey. We became acquainted with an American gentleman and his wife on the trip, and, forming a party of six, we all went to the same hotel for the night.

On the morning of June 23 we enjoyed an early view of the city and Neckar valley from the veranda of the hotel. High hills on either side of the river prevented a very extended view. The "Hauptstrasse" (main street) extends along the river and the principal part of the town is built along this street. The cross streets are very short, as the distance from the river to the hills does not admit of lengthy ones.

Above us, on Castle hill (Jettenuhel), we could see the tower of the famous castle and a portion of the ruined walls. Beyond the castle the top of the "Koenigsstuhl" appeared among the green trees which cover the whole surface of mountain above the castle.

On the opposite side of the river was presented to our view the Heiligenberg, a mountain covered with vines and forest trees, which rises abruptly from the river bank. On the summit we could see the ruins of an old church, which we would like to have visited, but did not.

HEIDELBERG CASTLE.

After breakfast we took the street car to the base of the Castle mountain and then by cable car we rode up the steep hill to the Schlosshof or court yard of the castle. In Germany there are ruins and ruins, but the Heidelberg castle is admitted by all to be the most magnificent ruin in all Europe.

The castle was originally built by Count Palatine Rudolph I., about 1300, and in 1362 the city of Heidelberg was attached to the German Palatinate and Elector Palatine, Rupert I., enlarged the castle and made it the electoral residence, and the city practically became the capital of the Palatinate. During the succeeding three hundred years the city and castle had a varied career of building and happiness, destruction and sadness. In 1622 it was partly ruined by the

French, and again in 1674, and Marshal de Lorges in 1693 completed the job. Soon after, the Elector took up his residence in Mannheim, to the west of Heidelberg.

I was especially interested in this old castle and city, as my grandfather (several times removed) used to live near by, about two hundred years ago. He is not there now, but with some three thousand other Palatines, who were tired of all the war they had been entertained with, emigrated to America in 1710 and settled in the Mohawk valley, in New York State.

The trouble had been mostly with the French from 1690 to 1700, during which time many castles along the Rhine had been demolished; and then shortly after the year 1700 there arose a misunderstanding in Germany, known as the war of the "Spanish succession," wherein certain German Princes and Spanish Princes claimed the right to the Spanish throne, and a large part of the dispute was fought out in southwestern Germany.

The Castle of Heidelberg was partly rebuilt about the beginning of the eighteenth century by the Elector Carl Philip, but in 1764 it was struck by lightning and left in a condition which has made it uninhabitable since that time. But every stone in the ivy-clad walls is linked with many historical associations. The huge walls are covered with the living green of the ivy vines, which cling lovingly to every window, opening or jutting point, as though to cover the wounds received long years ago. The grounds surrounding the castle are fresh with flowers and lovely plants, thus presenting a striking contrast between the perennial rejuvenescence of nature and the instability of the proudest of human monuments.

As the external walls served chiefly for purposes of defense, all architectural ornamentation was reserved for the inner facade toward the castle yard.

We first reached the castellan's abode, which is in the gate or entrance to the bridge over the moat. The bridge has numerous iron chains attached to the end, which were used for hauling it up at night or when the castle might be besieged by enemies. The moat is about twenty feet deep but there was only a little water in it. However, when it was full it must have made an uncomfortable bathing place for a knight in full armor who might try to swim across it.

The Schlosshof is paved with cobblestones, but was beautiful with flowers and vines when we saw it. The different parts of the palace obtained the names of their lordly builders. "Otto Heinrich Bau" was erected in 1556, and the principal face is partly Ionic and partly of the Corinthian order of architecture. It rises three stories above a lofty cellar floor and is richly adorned with beautiful sculpturing. Above the portal is a bust of the founder, the Elector Otto Heinrich, with armorial bearings and inscriptions. In the niches are a number of statues having a symbolical meaning, according to the custom of the time. In the four lower niches are Joshua, Samson, Hercules and David, all very strong men in their home precincts, and these were the representatives of strength and courage, the foundations on which a princely house rests. To the left and right of these are the "Freidrichs Bau," "Ruprechts Bau" and other portions of the huge architectural pile.

After making the observations of the outside, our guide arrived to conduct us through the inside. The first room we entered is filled with armor, tablets and relics found in the ruins—of the fierce battles which were waged around this castle.

This was the only room in which we saw anything of furniture or ornamentation. We were shown the library, dining-room, kitchen, etc., all empty, with nothing but the bare walls, and sometimes there was no roof. Our journey from floor to floor through hundreds of rooms gave us a fair impression of the hugeness of the immense ruin.

We ascended to the top of one of its numerous towers and obtained a fine view of the town, the Neckar valley and the hills beyond.

The last place visited in the old palace was one seldom missed, except by the most stringent prohibitionist. It was the cellar which contains the famous "Heidelberger Tun" (das grosse Fass), which is a mammoth cask capable of holding 49,000 gallons of wine. Unlike an anti-prohibitionist, it is seldom full.

It is about thirty-six feet in diameter, and has a room "all by itself." On the wall near it is the compasses with which its hugeness was originally marked out. By the side of the cask stands a grotesque wooden figure of Perkeo, the court jester of Elector Carl Philip, who used to drink nine mugs of wine at every meal. Had he only drank a wineglass once a

week, he would long since have been forgotten instead of being famous. I do not, just now, recollect the moral to be drawn, and I presume there is none.

Above the "fass" was formerly the dining-room or banquet hall, and on one side of the room is an old large iron pump; this is connected with the cask and wine was pumped up to serve the guests.

If all men who were entertained there were of such elegant capacity as Mr. Perkeo, one can imagine how useful a pump was in those times.

Our guide's services were now dispensed with, and for nearly two hours we roamed over the balconies, obtaining different views. The gentlemen of the party walked up to the "Koenigsstuhl," but, as a slight rain was falling, the ladies thought best not to venture.

The southeast angle of the castle is the "Gesprengte Thurm," or "blown up tower." It was of such massive, solid masonry that when the French wrecked it, one-half became detached and fell in the moat an unbroken mass, where it still remains. The tower is ninety-three feet in diameter and twenty feet thick as to its walls.

The grounds surrounding the castle are beautifully parked, and a restaurant in one angle furnishes a popular resort where, every afternoon, fine music entertains the continual stream of visitors.

HEIDELBERG UNIVERSITY.

We descended the hill by cable cars to the market square and thence to the university.

The university buildings are exceedingly plain and small compared with Berlin, but historically they are of much more importance, being the oldest German university, established in 1386 by Elector Rupert I. One of our party asked our guide if that was Rupert of Hentzau, but the guide only stretched his eyelids open and confessed that he had never heard of the gentleman.

In the summer of 1886 the university celebrated its 500th anniversary with great ceremony. The "Aula" or chapel was "restored" for that occasion. The room is very prettily decorated with mural paintings and busts of the Emperor and Bismarck. After our visit to the chapel we asked to be shown the famous "Carcer" of Heidelberg university. Here it is that the students are kept in confinement a few days as punishment for carousing or missing lectures.

The offenses thus punished are never great, and the students consider it great sport and pleasure, and even honor, to be put in the carcer. The guilty one is notified of his sentence and is left, on his honor, to go to the carcer and serve his time, and he is at liberty to go whenever it suits him best. The doors are nearly all whittled down, but that makes no difference. The furniture of the rooms consists of a bed, chair and table, and every available inch of space in the walls is taken up by pictures, names, caricatures and carvings.

Many of the students are Americans, and the walls bore the names of many American colleges, and the American flag was in evidence. One room of the "Carcer" was labeled "Palais Royal," another "Sweet Repose," and another "Contemplation."

Of the duels that German college students indulge in we had heard, but of course saw none.

It is said that to be able to appear on the street with wounded hands or face "done up" in bandages is the highest ambition of a Heidelberg student, as it indicates brave actions with the sword.

There are one thousand students in winter and about thirteen hundred in summer who attend Heidelberg university. And a large proportion of them are Americans or English.

We saw many of the students in the streets with different colored caps, which show their fraternities, and all wore glasses and canes—they simply wore their canes.

We visited the "Peterskirche," which was built in 1392 and in which Jerome of Prague preached the Reformed doctrines in 1460.

Then to the "Heiliggeist" church, which is nearly four hundred years old and which was divided in 1705 between the Protestants and Catholics. The former occupy the nave of the church while the latter use the choir. As to which side is espoused by the namesake of the church we were not informed.

By "sundown" we had seen all of the beautiful place, and we then took the train back to Frankfurt-on-the-Main.

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A Burmese School.

The uproar was like that of a runaway engine tearing through a tunnel. The floor was littered with youngsters lying on their stomachs, and all bawling with an energy indicative that somebody was hurting them. Long, slim, scratched-upon slips of palm leaf, the equivalent of books in Burmah, were spread before the scholars. Making the lads shout is the approved method of elementary instruction. When the master discovers any lagging in lung exercise a long switch begins to sing through the air. Quiet, serious study is exploded. The Burmese educationists argue that so long as a boy is shouting, his mind is occupied. When he is silent, he is certain to be scheming mischief. Therefore, the best shouters are the best pupils.—Travel.

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Mr. J. S. Soule, who, several years ago, was associate editor of the *Kansas Farmer* and was subsequently connected with the paper in a business way, has been nominated for the Territorial Council of Oklahoma by the convention of his party in Logan county. Mr. Soule's fidelity to the trust which his fellow citizens seek to impose upon him need not be doubted. He is a gentleman of wide information, thorough convictions and conscientious devotion to the right as he sees it. He is identified with the farming interests by reason of owning and conducting a farm and by reason of his connection with the Home, Field and Forum, which he established and continues to edit.

A press dispatch from Kansas City, September 17, says: "The Central Live Stock Association is a new Kansas City firm with a capital of \$50,000, which has applied for incorporation papers. The names given as shareholders are among those of the most substantial cattle men in Dickinson county, Kansas, with some well-known stock exchange men of Kansas City. The following is the list: C. A. Stannard, Hope; D. W. Naill, Abilene; S. M. Cook, Kansas City, Mo.; J. S. Hollinger, Abilene; James Z. Reed, Woodbine; J. B. Case, Abilene; George E. Dewar, Kansas City, Mo.; O. L. Thisler, Chapman; A. L. Hollinger, Pearl; J. W. Gillett, Woodbine; C. H. Pattison, Abilene; C. M. Mead, Kansas City, Mo.; E. C. Hollinger, Abilene; G. G. Gillett, Woodbine.

The tabular presentation of results of "Twenty Years of Kansas Agriculture," by Secretary Coburn, with the analytical comments thereon by Mr. H. R. Hilton, can scarcely be excelled in clearness of presentation of the ground covered. Mr. Hilton has done a valuable service in expressing by diagrams some interesting facts as to quantities and values of products, and in his clear-cut reasoning on the showing made. There are here presented facts on which volumes of discussion might be based. The politician may have his views of the case. The economist who inclines to study deeply and broadly the significance of the showing may interest himself with several of its aspects. The entire showing is left with the reader, with the suggestion that he file away this paper for reference in future, and perhaps for study and debate with other thinkers.

Beet sugar and cane sugar interests in the United States are looking with concern at propositions to annex such sugar-producing tropical islands as Cuba and the Philippines. Well may they anticipate extinction upon the full development of the tropical sugar industry, with American brains and American money and the admission of the product duty free to American consumers. The example of Hawaii is sufficient warning. There American energy, capital and skill have co-operated with the tropical soil and climate for several years. The reports of results in 1897 show in some cases production of as many tons of sugar per acre as the farmer can expect to average of beets in this country. Two instances of large fields are recorded, each of which produced in sugar something over eleven tons per acre. How can eleven tons of beets, from which some 10 or 12 per cent. of sugar may be extracted, be expected to compete with a production of eleven tons of su-

gar? The cane sugar industry is fairly well adapted to machine work. It is capable of great and rapid development along that line. The areas suitable for sugar production in Cuba and the Philippines are enormous in extent and in productive capacity. Stable and efficient government in these islands and free entry of their products to the consumers of this country will probably be the only conditions necessary to enable their competition to close permanently every sugar factory in the United States.

THROUGH SOUTH-CENTRAL KANSAS.

Having business in the southern part of the State, the editor last week took passage on a Santa Fe train for Arkansas City. If a Kansas agricultural editor should ever so far lose his mental bearings as to sigh for other fields than those of the Sunflower State, a trip like that above mentioned would prove a sure panacea.

The makers of prairie hay are showing evidence of their appreciation of the native blue-stem grass. From a little beyond the suburbs of the capital city, for 100 miles, the mowers, rakes and stacking machines were in active operation. The great and many stacks of this excellent forage are wealth stored from the gratuitous offering of nature, and they will be turned into cash through the beef steer and dairy route between this date and next spring. The many fields of Kaffir corn, with heads of white or red grain, confirm the correctness of Secretary Coburn's reports of increased acreage of this new grain and forage crop. The observation was made a few years ago that white Kaffir corn was not sure to always get out of the boot and that the grain frequently molded while still immature. The red variety was greatly preferred because of its immunity from this objection. But a rough estimate leads to the conclusion that this year there are more acres of the white than of the red along the route from Topeka to Arkansas City, and that there has been no trouble about its molding in the boot. There was no opportunity for inquiry, but it is probable that this white Kaffir corn was of the comparatively new variety known as "black-hulled white-seeded." It has small black hulls at the base of the seeds, produces extremely large heads, which get well out of the boot. It is a favorite variety with those who have tried it and seems likely to become generally popular.

The great cattle and corn region, of which Chase county is a sort of focus, has by no means abandoned its old favorite—Indian corn. The crop is later than usual in maturing, on account of the backward spring, but it is going rapidly into shock. The crop through this section shows good ears, and, although not as well tended as usual, will make about as many pounds of beef and pork as this region has ever produced.

Whatever may be said of other sections, the traveler is sure of pleasing emotions as his train takes its way over the broad plains of the Arkansas valley. Alfalfa fields have been passed before this valley is reached, but nowhere are they greener, nowhere of more uniform stand than here, where the roots may permeate moist subsoil during the driest seasons, and may drink from the never-falling underflow water, at depths of ten, fifteen or twenty feet.

No finer farm residences are anywhere to be seen than on the prosperous farms of Cowley county. Broad wheat fields, plowed soon after harvest, disked several times since, and now traversed by four-horse wheat drills; steam threshers and new straw piles; corn fields in which the ripened ears hang heavily upon the sides of the stalks; meadows and stacks, pastures and cattle; red barns; groves planted by the hand of man—these furnish suitable surroundings and support for the residences on which the camel-back roof is more prevalent than in any other rural section which has come under the eye of this writer.

There is a tinge of sadness as well as an element of interest in the history of these elegant residences. During the boom period of the 80's vast areas were laid out into blocks and lots in the vicinity of cities. So great became the craze for laying off city properties and railroads that a bill was introduced into the Legislature reserving for agricultural purposes and against absorption in town lots and railroad rights-of-way 10 per cent. of the area of each county in the State. This bill was, of course, burlesque. But incredible numbers of excellent residences were built in the suburbs of the towns. When it became evident that they were not needed as parts of metropolises, and when they were unable to escape the tax bill and as-

essor, these fine houses, in which nobody lived, became burdens to their owners. They very soon passed into the possession of mortgagees, whose pockets they burned still more as their vials of wrath were poured out against Kansas. While these money loaners were vituperating, the tillers of the soil were sowing and reaping and gathering the golden grain into barns, converting it into meat and milk and accumulating some shekels. When the Eastern owners of these fine houses found vituperation unprofitable and tax-gatherers relentless, they wanted to sell, and the Cowley county farmer was ready with his money to drive a good bargain. The business of selling houses to be removed from town lot to farm and delivered there in a finished condition, with all modern conveniences in perfect order, became an active one for the house dealer. The eight- or ten-room residences were sawn into sections and every section carefully numbered. The heating plants and bathroom outfits were taken apart. An entire property, including the cellar walls, was loaded upon cars, taken to the railroad siding nearest to its future resting place, and the house was set up, replastered, repainted, and all the conveniences were put in place, whereupon the farmer drew his check for about \$1,000, and is now enjoying a home which would have cost \$2,500 to \$3,000 to build and equip in the regular way. "It's an ill wind that blows nobody good." May these farmers live long to enjoy their fine farms and elegant homes.

Some Aftermath of the Irrigation Congress.

Editor *Kansas Farmer*:—Some things in this world are slowly learned. The friends of irrigation have been learning during the seven years last past since the first meeting was held at Salt Lake City. We have held meetings, a thousand or two miles apart, during these years, and so have been able to study the question from different standpoints. This study has been patient, earnest, and conscientious. It has been a labor of public interest in the public question of immense importance. Upon the right solution of the reclamation enterprise depends the future development and growth of the arid West. It will no longer do to shut our eyes and say this matter will take care of itself. It is for us, of the present generation, to solve this irrigation problem, else we fail to achieve what we have set out to do, and so leave to other hands to finish the work we have pioneered.

The work will get itself done by somebody, by some means, and in some time, not in the far distant future. The hundred million acres, to-day lying idle on "Uncle Sam's" hands, which may be cut up into little homes of prosperity and contentment, are to be utilized whenever the pressure of poverty and want reaches its maximum point in the congested populations of our big cities. Then these over-crowded centers will witness a scattering of their hungry millions out upon the fair and healthful plains of the newer West.

The late congress at Cheyenne was of one mind as to what is to-day needed, which is more water. A permanent and ample water supply laid up in store in the deep gulches of the mountains, to be drawn upon when needed by the farmers, is just now the new demand of the hour. It may be said that all running water that is readily come-at-able is already owned by somebody; and this water, if for sale on any terms, is held at a price which is prohibitive to the average home-seeker as he starts out with his young wife and child to find a home where he can dig a living out of the ground. All other home-seekers are of little account so far as the public is concerned, when lined up and counted beside of this particular kind of a home-seeker. Now, this convention seemed to think that we have already reached the limit of our agricultural expansion in the mountain States till we can acquire this increased water supply. When I stated, in my annual address, that Kansas had already been settled forty-four years, and yet only a trifle more than three millions people are to be found, all told, west of our west line, and when I added to this statement that we could not look for any considerable growth in the years to come, only as there should be an agricultural growth first, not a little surprise was manifested.

Who is to provide this increased water supply—the State, the nation, or a lot of syndicates? These be knotty questions, but they are to be answered, shortly, too, in my own judgment, by the swift and sure logic of events. We have this open, idle empire of public land, with the finest climate in the world. We are talking about sending our young men down into the tropics, and all that. We are trying to get away from the job of redeeming these arid areas, but we

cannot escape destiny if we would. The Pacific States are just now standing upon the horizon of their destiny, it is said. We are waiting for the master mind to point the way. How long shall we wait?
J. S. EMERY.

Representatives of this country abroad have ascertained and reported that Spain's expenditures in trying to subdue her colonies and in fighting the United States were \$384,800,000. Secretary Gage reports that to and including August 31, the expenditures of the United States on account of the war with Spain were \$105,000,000. But Spain got whipped and we didn't. That is where the "boot" comes in.

The Franklin County fair, at Ottawa, opens to-day. This fair, under the able management of Secretary Ridgway, has proven that the county fair is not merely a thing of the past, but that, by making it as nearly as possible what a county fair ought to be, it finds as much favor as in days of yore.

Colorado Herefords.

Last week the *Farmer* referred to a portion of the 4,500 Hereford cattle offered for sale by Geo. H. Adams, of the San Luis valley, Colorado. The registered division consists of 200 of as richly bred and high-class individuals as may be found anywhere.

There are about a score of imported females and specially selected individuals that belong to the white-face aristocracy of the breed, and among them is a draft that came from the Cross importation of 1897, viz., Luminous 76027, at a cost of \$1,500. Leominster Daisy 2d 76021, for \$1,205. Winfred 76075 at \$705. Miss Luna 2d 76041 at \$430. Ony Beatrice Vol. 18, at \$405, and Hop The Twig Vol. 18, at \$355. In this draft were several that were bred at Sunny Slope and among them was the \$905 Miranda 60919, a daughter of Wild Tom 51592, and out of Elvira 2d 42358, she a granddaughter of the noted Beau Real 11055. There were twenty-one head in the draft whose average cost was over \$500 per head. At the final dispersion of the old Thos. J. Higgins herd, known as the Rock Creek herd, in March, 1896, Mr. Adams secured about fifty head, getting many of the choicest out of the 250 dispersed, and among them were several imported cows. It may not be out of place here to mention the fact that it has always been the practice of Mr. Adams since his first venture with Herefords to pay the price for individual animals, whether at private or public sale, if it suited him and met his ideal of what a good Hereford should be, both as an individual and in breeding.

In the pure-bred division one finds about the same number as in the registered herd, and as far as the general character, type and individuality is concerned, it betters the scrutinizing observer to distinguish the difference, if any there be. It is best explained briefly by stating that for three years just prior to the late revival of "better times" for improved beef cattle, Mr. Adams did not, like many others engaged in breeding, keep up his registration in the herd book; notwithstanding this, however, the identity of the cattle in this division has not been lost and is known both by Mr. Adams and his chief herdsman, Joe Bartram, well known to the white-face breeders of the West when the Hereford flag was topmost in the early 80's. In this division are two daughters of Graceful 10th 36539, a cow that will be mentioned farther on. The one, a four-year-old, the writer is inclined to think the best female on the farm, notwithstanding Mr. Sotham, of Missouri, prefers the cow Julia 36544, by Archibald A. 23109 and out of Judy Wilton 15077, she a daughter of Lord Wilton 4067. There are far too many to attempt anything like an individual description of both these divisions, and suffice it to say that there are over 100 head of serviceable bulls in these divisions and a choice lot of young heifers. The bulls doing service in these herds are Ashton Boy 52058, Orpheus 71100, Zapato Chief 70034, Medavo Chief 70025, Stockfield Wilton 22864, Perkins 36550, Bloom 47075 and Bloom 2d 68518.

Ashton Boy 52058 was bred by Thos. J. Higgins, sired by Cherry Boy 26495, he a son of Fowler 12399. His dam, Ashton Beauty 24483, was a daughter of Chancellor 5310 and out of Brown Beauty 24484. He came to the San Luis valley herd from the dispersion of the Rock Creek herd in March, 1896. He is now in his six-year-old form and individually a first-class Hereford. His worth is very strongly attested by the high character of about fifty of his sons and daughters now in the herd. They have extra fine coats and an up-to-date style and finish that is sure to meet the approbation of all visitors. Next in rank is the long yearling, Orpheus 71100, bred at Sunny Slope, sired by Wild Tom 51592 and out of Lilly Cochran 3d 42250. She a daughter of Earl of Shadeland 12546. He came to the farm last March from the Sunny Slope sale at the price of \$855. In his tabulated pedigree one finds the richest of breeding. On the paternal line three removes are Anxiety, Aberdeen, Horace and again Aberdeen, while on his maternal side are Quickset, Regulus, The Grove 3d and Lord Wilton. Here is a pedigree among pedigrees and on top of it an individual animal that is the apple of the Hereford man's eye. It is the judgment of the writer that Orpheus is the equal of his illustrious sire Wild Tom, in fact, in one or two particulars, his superior. He has come out wonderfully since making his debut in the short grass country and such is his promise that he is being bred to the best daughters of Ashton Boy. Space forbids further notes on the herd bulls at this writing, but they, in common with the best cows and the show herd, will be given notice in a review which will appear in a future issue.

To feed stock properly, on any farm, a good feed mill is necessary. Notice advertisement of feed mills manufactured by Nordyke & Marmon, 285 Day St., Indianapolis, Ind. Write for catalogue.

Notes from the Fairs.

CLAY COUNTY FAIR.

The tenth annual fair of the Clay County Fair Association was held in Clay Center, September 14, 15 and 16. There had been considerable rain just before the fair, so that there was none of the dust which usually hinders the fair. Some new sheds have been built since last year, and the grounds are nicely located, with plenty of shade trees. Mr. John Smith, of Clay Center, had a fine herd of Jersey cattle. In the horse department, Mr. S. A. Mulligan, of Clay Center, had a fine Belgian and Norman stallion with five of his colts. In the sheep department, the fine-wools were represented by J. J. A. Keene, Clay Center, and R. Fowles, of Wakefield. John Lyons, of Oak Hill, got sweepstakes on buck any age or breed. The swine department was represented by Poland-Chinas only, owned by H. W. Griffith, of Clay Center, and Ben Small, of Idana. The poultry department was as full as usual. The Agricultural hall was not quite up to the usual standard. There was some very fine corn, as well as other grains, on exhibition.

COFFEY COUNTY FAIR.

The eighteenth annual fair was held at Burlington, Kas., last week. The weather was favorable and the attendance better than usual. There was a good showing in Agriculture hall of the produce of the farm, orchard and garden. It was a very creditable quality show and was a good advertisement of the resources of Coffey county. The live stock exhibit did not meet the expectation of the visitors and was hardly up to that of former exhibits; however, creditable live stock exhibits were made of Hereford cattle, by E. A. Eagle & Son, of Rosemont, Osage county, who made the leading and winning exhibit for the beef breeds. The leading live stock display was made by the Poland-China breeders, consisting of H. Davison & Son, Waverly, and Woodford Bros. and W. P. Palmer, of Burlington. The herd of Davison & Son were the leading prize-winners.

The leading feature of this fair was in the speed department, and the field of entries for the trotting, free-for-all pace and running races were well filled and afforded ample attractions for three days.

THE KAW VALLEY FAIR AT BISMARCK GROVE.

The first fair for many years held at Bismarck Grove, Lawrence, took place last week under the auspices of the Kaw Valley Fair Association. These grounds have been famous in the past as a great battleground for the breeders of the West and for competitive exhibits from the Union Pacific Territory, and consequently, in view of these facts, the association was favored with a splendid attendance and the prospects are good for subsequent fairs by this association. The display in Agricultural hall was indeed highly creditable and was probably the best exhibit of the kind made in Kansas this year. The department of fruit was in charge of Superintendent B. F. Smith, who is so well known to the fruit-growers of the West, and the great success achieved in this department is due to his skill and experience.

The first prize of \$20 for the best and largest collection of all kinds of fruit was won by that veteran horticulturist, Samuel Reynolds, of Lawrence. The first prize, \$10, for the best collection of pears was awarded to B. F. Smith; first premium for best collection of grapes, James Kane; first premium for best collection of peaches, P. Voorhies, Lawrence. In the display of pears by varieties, the leading exhibitor was old father C. H. Lovejoy, of Baldwin, Kas., who made an exhibit from his own farm and won first premium on every variety in which he had interest. It was an unusual scene to see a man 87 years old an active and enthusiastic exhibitor at a fair.

The live stock exhibit, for the first attempt by this new association, was highly creditable, and it is gratifying to note that there is one fair association that is making a special effort to have a representative sheep department. Mr. E. W. Melville, of Eudora, was superintendent, which explains the advance made in this respect by this association. All classes of sheep were represented, but not to the extent that was anticipated. Merinos were shown by Bert Jewett, of Lawrence; Shropshires by R. L. Gilbert, Sarcoxie, and E. S. Kirkpatrick, Wellsville, and Cotswolds by George Groenmiller & Son, of Centropolis, Kas.

In the cattle department, the display of beef and dairy breeds was very good. The leading exhibit, so far as cattle were concerned, was in the Jersey division, exhibits being made by William Brown & Son, E. A. Smith, A. McKill,

and Mrs. G. W. Maffet, all of Lawrence. There was a splendid show of Red Polled cattle made by George Groenmiller & Son, Centropolis. There were two exhibits of Hereford cattle made by Steel Bros., Belvoir, and A. E. Metzger, Bond, Kas. The Steel Bros. had a very strong exhibit of thirteen head, headed by their great herd sire, Princep 66683. They won first premium in every class in which they entered, also secured first for best herd. Also sweepstakes for best cow, any age or breed, on Plutarch 3d, also sweepstakes for best two animals, beef breeds, the produce of one cow.

The Short-horn division was represented by the show herd of Glendalefarm, owned by C. F. Wolf & Son, Ottawa, Kas. They cleaned up all the first and second prizes shown for, and also secured sweepstakes for best four animals, beef breeds, under 4 years old, the get of one sire.

The sweepstakes for dairy breeds were as follows: Best bull, Adapted Exile 5937, Jersey, owned by William Brown & Son. Best cow, Lovely Prize 59657, owned by William Brown & Sons. For best dairy herd, awarded to the Jerseys owned by E. A. Smith, of Lawrence.

The swine department was, as usual, strongest in the Poland-China class, with R. H. Wheeler, of Lawrence, and P. D. Whitsel and J. N. Harshberger and W. B. Van Horn, as exhibitors. The Berkshires were represented by Manwaring Bros., of Lawrence, and Essex swine by G. G. Burton, of Topeka. Mr. G. G.

Burton, of Topeka, was one of the general exhibitors at this fair and secured the following leading premiums: First on best Essex boar over 1 year; first, Essex sow over 1 year; also first for all-purpose stallion; also first for best saddle horse; first and second for pair Toulouse geese; first and second on trio of Indian Games, and second on pair of Pekin ducks.

Kansas Cattle and Swine.

The number of cattle and swine in Kansas, as reported from assessors to the State Board of Agriculture, shows an increase that should be very gratifying.

The gain in the number of milch cows is 53,387, or nearly 10 per cent. There was an increase in eighty-six counties, amounting to 58,722 head. The largest gains were in Wabaunsee, Osage, Mitchell, Pottawatomie, Nemaha, Clay, Lyon and Stafford counties. There was a falling off in nineteen counties of 5,335 head, Bourbon county leading with a decrease of 1,168 head. The total number of milch cows is 605,925.

Of cattle other than milch cows 1,998,140 head were returned, which is a net increase of 394,197 head, or 24.57 per cent. This is the largest number and largest increase ever returned in Kansas. The nearest approach to it was in 1891, when the State had 1,770,591 head. There has been an increase in ninety-three counties, amounting to 406,150, and twelve counties show a decrease amounting to 11,953. The big gains were 21,880 in

Cowley; 18,000 in Clark; 16,027 in Lyon; 13,893 in Riley; 13,138 in Jewell; 12,717 in Marshall; 10,774 in Barber and 10,245 in Comanche. Johnson, Douglas and Miami led in the decrease.

Of swine the State has more this year than ever before, and 366,577 head, or 15.27 per cent. more than last year. Seventy-two counties round up an increase of 423,101 head, while twenty-three counties have a decrease of 56,524. The most conspicuous increase is in Jewell, where it amounts to 22,380 head; Brown, Phillips, Smith and Pottawatomie show also big increases. Butler, Reno, Sumner, Wabaunsee and Barber are the counties showing largest losses.

The number of horses in the State is returned as 777,828; of mules and asses 84,223, and of sheep 207,482.

Nelson Chesman & Company, of St. Louis, New York and Chicago, the advertising agents, have issued a book which is unusually valuable to all who advertise. It is a Newspaper Rate Book, in which is given not only a full catalogue of the newspapers and periodicals in the United States and Canada, of 5,000 circulation and over, with full descriptions of each paper (including number of pages, length and width of columns, character, circulation, etc.), but also the regular gross advertising rates for each paper per line or per inch, on short time advertisements as well as for three, six and twelve months.



IN THE OCTOBER LADIES' HOME JOURNAL

Mrs. Caroline Atwater Mason, author of "A Minister of the World," begins a new story called "THE MINISTER OF CARTHAGE," depicting a young clergyman's high sense of duty battling with love and something akin to ambition.

Josiah Allen's Wife

Has written another story for the JOURNAL readers. She tells in it about a sickly society girl, and what brought her to her senses and good health.

In Mary E. Wilkins'

Capital new story a metropolitan woman does some very funny things, and in trying to elevate the villagers she learns a thing or two.

IN THE SATURDAY EVENING POST

are to be found the best serial and short stories the world can produce. The handsomest illustrated weekly published

We will mail THE LADIES' HOME JOURNAL, beginning with the next issue (October number), to January 1, 1899, also THE SATURDAY EVENING POST, every week, from the time subscription is received to January 1, 1899, for Twenty-five Cents, for the purpose of introducing our weekly with our well-known monthly.

The Curtis Publishing Company, Philadelphia

Horticulture.

IRRIGATING SMALL FRUITS.

By J. F. Cecil, read before Shawnee County Horticultural Society, September 1, 1898.

Of all the plans I have ever had in mind for the growing of crops of fruits and plants, none has been more remote than that of securing moisture by the artificial application of water, and why I should have been selected to discuss this subject is something I do not understand.

I fully appreciate the importance of having an abundance of moisture for these crops. It has seemed to me that there are cheaper methods of securing it—for it cannot be denied that there are some obstacles in the way of the irrigator. In our county a very serious one is that of securing the water. While there are three or more irrigating plants on river bottom lands, used in raising vegetables, I know of none used in raising fruits except the one constructed and used by our host, and to prove the assertion that the upland is best suited to the production of small fruits I only have to cite you to the fact that it is nearly all grown there, and this is where the seriousness of water supply, referred to comes in. Mr. Goodell will probably give his experience.

Mr. Austin's plant, north of river, west of North Topeka, with ten or twelve-foot mill, secures, I understand, plenty of water generally, but this has failed at times when most needed for lack of wind to furnish the power. Cost, probably \$100 to \$200.

Mr. Frank Rude, a very successful north-side gardener, has a steam plant, costing \$200 to \$300, but it is not satisfactory—not, however, from any lack of the water supply.

Mr. Kuehne's plant, also on north side, costing, perhaps, upwards of \$1,000, has a capacity for ten to twenty acres.

But none of these parties are raising fruits successfully.

Mr. Rude stated that his attempts at strawberry culture were not satisfactory, on account of low land.

On the upland only a very limited amount of ground can be irrigated, and this at great cost for water, which must come from very deep wells or by damming the draws, both of which are very expensive, except in rare instances. I have not gone far enough into the subject to speak intelligently about the exact cost of securing water on the upland. Much more could be said on the subject of cost, but I want to speak of another obstacle, viz., that of having the fruit plat thoroughly saturated at the end of a drought in May or June, and the owner congratulating himself on the advantage he has over his neighbor and the fine prospect he has for filling his pocket, so depleted by the expense of construction, when suddenly the windows of heaven are opened and kept open till all wish for the dry as much as they wished for wet.

How many fruit-growers present needed an irrigating the past spring? Mr. Rude told me that several times he has arranged to start his pumps, and the appearance of rain clouds made the work unnecessary. Much of our best fruit lands have a large admixture of clay which, under unfavorable conditions, may hold the water to the detriment of fruit and plants, and I have seriously thought of tile-draining, but not of irrigating, and hence the remark at the beginning of this discussion.

I truly believe that I have lost more from excessive moisture than from a lack of it. This will not apply to sandy bottom land. I suppose that the ideal fruit plat is the one that is tile-drained and under an irrigating plant, in addition to other requirements. Prof. Goff, of the Wisconsin Experiment Station, claims to have demonstrated that the feeders of the strawberry plant rarely go beyond twelve inches. If such is the case, moisture must be near at hand, and it is fair to presume that none of the small fruit plants extend very much farther than the strawberry. Then, we must not only have the moisture, but must have it near at hand.

The chemist tells us 90 per cent. of the strawberry is water. If such is the case, it would seem that the work of the strawberry-grower is to gather and hold the moisture till the consumer is ready to take it off his hands. Let us see how much of a task this is: Ten thousand quarts of berries to the acre is a very large crop. Ninety per cent. of this crop would be only 2,250 gallons of water, according to the aforesaid chemist. Well, where is this to come from? Let us ask Director Jennings. His statement is that the average rainfall in Shawnee county is 34.40 inches, which means between 900,000 and 1,000,000 gallons. But when does this fall, accord-

ing to the statistics of the station? It falls, in January 1.09, February 1.46, March 2.01, April 2.46, May 5.53, June 5.53, July 5.13, August 4.46, September 2.72, October 1.84, November 1.21, December .96. Note the time the fruit needs the greatest amount of moisture, and nature doing her utmost to help man.

A great question to the small fruit grower is, "How can he conserve this moisture till needed?" This is best answered by the intelligent cultivator of each plat of berries. It may be by subsoiling, or refraining from it; by plowing under green or dry crops; by constant cultivation; by mulching.

In my work I have found it advantageous to run a subsoil plow between the rows of plants in mid-summer, when the work was followed by copious showers immediately; but was caught on one occasion when the showers did not materialize for a few weeks. But when properly done, subsoiling has been profitable to me.

I had quite a lesson on the subject of conservation of moisture the past spring. A field of heavy, black, waxy soil was cultivated to potatoes in 1897. These were dug early and the field left to the weeds, which made a large growth. It being too wet to burn them, the entire coating was well and deeply turned under early in the season and planted to tomatoes. During the latter part of July, where former wet weather followed by severe drought left the surface cracked, hard, and unfriable, this year showed the land to be friable, with moisture near the surface.

The Sand Plum.

In a recent bulletin the Kansas Experiment Station says:

"Among the native fruits of Kansas there is none more interesting or valuable than the sand plum (*Prunus Watsoni*). Distributed abundantly over the western half of the State, it borders the streams and covers the adjacent sand-hills, sometimes extending into the clay uplands, but always at a loss of vigor in growth and quality in fruit.

"In its natural habit it attains a height of from two to eight feet, having usually a tree-like form, though often branching and bearing fruit from ground to top. Branches horizontal with a tendency to zigzag and tangled growth, and often terminating in sharp, spiny points. Twigs slender, of cherry red color and abundantly supplied with lenticels. Leaves thick, glabrous, very finely serrate, serrations sometimes so pointed as to be spiny. In shape leaves are usually acutely lanceolate, in length varying from one-half to two and one-half inches, and in habit conduplicate or trough-like when exposed to brilliant sunlight, but almost flat in dim light. Blossoms small, occurring in dense clusters in early spring. Fruit oblong to round, yellowish pink to dark red, one-half to one and one-fourth inches in diameter, ripening from July 1 to September 15. Stem one-fourth to three-fourths inches long, slender. Pit small, roundish to long, slender and pointed. The plant propagates most rapidly by sprouts from the roots. If a specimen is dug from a thicket it will generally be observed to have but a single large root, eight or ten inches below the surface, which extends to it and passes on, supporting perhaps half a dozen other bushes.

"The sand plum has varied into many types. But it has not produced, as we might suppose, different types for different localities; it has crowded them close together, often in the same or adjacent thickets. Near the Arkansas river were found as many as six perfectly distinct types on a ten-acre lot. Profusion of varieties is to be noted in every favored location.

"It has been thought that the roots of this hardy plum might make valuable stocks for the grafting of domesticated varieties, but experiments at the station tend to prove the reverse. Numerous varieties were grafted, using *Prunus Watsoni* as the stock. Failure in almost every instance was the result. The tender, succulent roots do not unite readily with a foreign scion. Even if a union were secured, the propensity of the stock to sprout would at once exert itself, resulting soon in a dense thicket. The propagation of the species is easily accomplished by means of root cuttings or seeds, preferably the latter.

"The following forms are the most valuable we have been able to find:

"1. A common type growing in almost pure sand, four to ten feet above the water level. Bushes in scattering thickets, two to four feet high, branching and bearing fruit from ground up. Leaves small, one to two inches long, never open to a plane surface, thick, shining, finely serrate. Fruit three-fourths to one and one-eighth inches in diameter,

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globose. Color bright red clouded over lemon yellow ground. Flesh yellowish, tender, juicy, sweet, somewhat fibrous, and adhering firmly to stone. Ripe in southern Kansas the first week in July.

"2. A small group of bushes growing in a very large thicket on the Arkansas river. Bushes extremely dwarfish but tree-like, three to four feet high. Branches unusually stout, growing laterally more than upright. Leaves larger than on common types, dark, shining green. Fruit large, one inch to one and one-fourth inches in diameter, rounded or flattened. Color dull red but somewhat hidden by the heavy bloom. Flavor excellent. Ripe in latter part of July. A variety surpassing many cultivated sorts.

"3. A small clump of bushes found near the variety last described. Bushes small, two to three feet high. Foliage scant, leaves small. Fruit fine in appearance, one inch to one and one-fourth inches in diameter, roundish, bluish pink color, with delicate bloom. Skin thin. Flesh juicy, melting, rich. Flavor sweet and good. The most delicious sand plum that has yet come under our observation and worthy of place in any orchard.

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In the Dairy.

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

A Hint to Cow Owners.

The week ending September 12 has been a suggestive one. In the western part of the State there has been six inches of snow, and in the eastern portion a cold, drizzling rain for four consecutive days. The cow that has been protected during this time by a barbed-wire fence has had to suffer. Gov. Hoard says that we should treat the cow with as much respect as we would a lady, and thinks it would do no harm to even tip our hats to her. Contrast this treatment with that received by most of our Kansas cows, and we need not be surprised that they sometimes become offended and make their protest at the milk pail. The week referred to has been an object lesson. It reminds us that fall and winter will soon be here, and if we are going to do the best by our dairy cow she must be warmly sheltered.

The steer, with his good coat of hair, thick hide, a heavy layer of fat and a good circulation near the surface of the body, may pass the winter without being materially affected by the sudden changes in the weather, and if provided with an open shed as protection against blizzards may make excellent gains without seeing a barn. Not so with the dairy cow. She is entirely opposite in her temperament and make-up, with a thin hide, with little or no fat beneath the skin, and a poor surface circulation, and the better the cow the more sensitive she is to climatic changes. Few people realize the loss sustained from cold barns. In an experiment carried on in England it was found that with a herd of thirty cows the profit was £3, or about \$15 per week, more when the temperature was kept up at 63° than when at 52°. At this rate it would not take long for a herd of good dairy cows to pay for a barn.

If he has not already done so, now is the time for the dairy farmer to provide shelter for his cows. It is not necessary that he build an expensive barn. H. B. Gurler, one of Illinois' most successful dairymen, writes that a cheap frost-proof stable can be provided by nailing boards inside the posts or studs and filling the space between with straw. Mr. Gurler found that he could keep his cows as comfortable in this kind of a stable as he did later on in more expensive ones. It should be the aim to have the stable sufficiently tight so that the animal heat of the cows will keep the manure from freezing. At the same time, special attention should be directed towards securing ventilation and sunlight, as failure in these latter points will result sooner or later in decreased healthfulness of the herd.

As the winter season approaches it should behoove every farmer to look around and see how he can best provide for the comfort of his cows. Failure to do so is not only cruel but expensive. D. H. O.

A Valuable Record.

Mr. A. H. Diehl, Pearl, Kas., sends in a detailed and valuable report for 1897 of his herd of eleven cows. During the year he sold to the cheese factory 46,398 pounds of milk, which yielded 1,894 pounds butter fat, an average test of 4 per cent. This does not include the milk kept at home for the table, for butter, and for the calves. During the month of January Mr. Diehl kept an account of the milk retained at home and found that it amounted to \$8.19. Estimating this at \$5 per month for the year, and valuing the calves at \$8 when dropped, the amount stands as follows:

Received for milk	\$298.90
Value of calves	88.00
Value of milk retained at home	60.00

Total income from eleven cows.....\$446.90
This gives an average income per cow of \$40.62. Adding one-fifth to the milk and butter fat delivered to cheese factory to make up for milk retained at home and the average yield per cow will be 5,061 pounds milk, 204 pounds butter fat, equal to 240 pounds butter.

Mr. Diehl also sends us a record of his best cow. Her yield for 1897 was 7,024 pounds milk, which tested on an average 4.2 per cent., 295 pounds butter fat, equal to 347 pounds butter. Total income \$49.02.

In regard to his dairy work, Mr. Diehl writes as follows:

"My cows are all well-bred Short-horn and I think they are the best breed for all purposes.

"My stable is a Kansas stable, stone laid up cold and straw roof, with dou-

ble stalls, feeding alley, and each cow has a box; cows are dehorned, tie with rope around neck; do not like stanchions, as I do not believe a cow can rest easy in them.

"My feed is corn and cob meal, and bran mixed with a little salt. I do my own grinding, also ground Kaffir corn when I have it to mix in. Roughness mostly cane, millet and corn fodder. I sow a piece of rye early for pasture, also pasture my wheat when the ground is dry. I think it does the wheat no harm then.

"I use an aerator and well water to cool milk; can keep it two days nearly all summer. During July and August, when the weather is warm or a thunder shower comes up, my evening's milk will turn. I have a milk tester and test each cow's milk about once a month. I have my cows come in in the fall.

"Milking the milk from cows and feeding it to calves I consider extra labor. My method now is to cull out my poorest cows or cows that are not gentle and let them raise my calves. I have one lot of cows to come in about this time of the year and the rest in November and December. Sometimes put two calves to one cow; have the calves in separate pen, with fresh water and the same feed I give my cows before them, and by the time they are two or three months old they will not miss their adopted mother, who will then take another calf."

Over \$55 Per Cow--An Excellent Record From a Woman.

Miss N. G. Thompson, Wellsville, Kas., a patron of the Wellsville creamery and cheese factory, sends an excellent report from a herd of ten cows. Total milk for the year 61,075 pounds, total butter fat 2,544 pounds, making an average test of 4.16 per cent. The income from the herd stands as follows:

Received from sale of milk	\$402.06
Received from sale of calves	14.50
Value of calves on hand, seven at \$20	140.00

Total income from herd.....\$556.56
This makes an average income per cow of \$55.65. The average yield per cow was 6,107 pounds milk and 254 pounds butter fat, equal to 298 pounds butter.

Miss Thompson writes as follows: "Our cows are all Short-horns except two, which are half Jerseys."

"During the winter their feed consisted of good timothy and clover hay, with corn on the cob, and grass during the spring, summer and fall. Had they had extra care they would no doubt have done much better.

"For shelter from the cold and storms they have a shed which is not tight enough to be very warm.

"Our calves came in October and we fed new milk from one to three weeks, and then creamery skimmed milk was mixed with the new. As cold weather came on and the new milk was taken from them we made from six to ten quarts of corn chop gruel twice a day and put with their milk. While they had milk they had all the hay they wanted. We took the milk away from them in February and gave them corn with their hay and they came out in the spring in very good order."

Fall Pasture.

Kansas dairymen should provide immediately for fall pasture. Complaints come from many parts of the State of pasture failing, fodder drying up and cows dropping off in milk until it hardly pays to milk them.

Winter oats make good fall pastures and in a favorable season will furnish pasture until December 1.

Rye furnishes pasture well into the winter and early pasture in the spring. It has a tendency to injure the flavor of the milk and the flavor and grain of the butter. The injury to the flavor of the milk and butter can be overcome by thorough forced air aeration while the milk is warm. The injury to the grain of the butter can be avoided when the cows are pastured on rye by feeding grain which will harden the butter, such as corn, Kaffir corn or cottonseed meal. Unless the dairyman will take pains to aerate his milk until the rye flavor is driven off and will feed to harden the butter, he had better let rye alone.

Wheat makes an excellent pasture for dairy cows. It is safe in some parts of the State to pasture wheat that is sown for grain, in other places the tramping seriously cuts down the yield of grain. For pasture alone sow two to three bushels of wheat per acre. Get it in early. It can be pastured a large part of the milking season, is one of the best feeds for forcing a high milk yield, does not injure the flavor of the milk and butter like rye, and besides its own feed value, keeps the cow in such condition that she

will give more milk from the dry feed given her. Thickly-sown wheat makes a good pasture for a considerably longer period than rye in the spring, and afterward if it is cut just at the time of heading and fed green it is unexcelled for producing a large yield of milk. H. M. C.

An Important Point to Consider.

Attention is called to Mr. A. H. Diehl's dairy record for 1897. It shows very clearly the value of individual records. It will be noticed that the herd averages 240 pounds butter yearly per cow, while the best cow makes 347 pounds butter, a difference between the average cow and the best cow of 107 pounds. This would indicate that some of his cows must yield considerably below the average. We regret that we do not have the record of his poorest cow. At 15 cents a pound for butter, Mr. Diehl's best cow brought \$16 per annum more than the average of the herd. Now, it requires no more labor, no more shelter and very little more feed to keep a good cow than it does a poor one. Allowing 150 pounds of butter for the keep of a cow, the average yield of the herd will be 90 pounds profit, and the best cow 197 pounds profit. In other words, Mr. Diehl's best cow is worth more than two of his average cows. D. H. O.

Prof. G. L. McKay, of the Agricultural College, Ames, Iowa, is to be in attendance at the State Dairy convention. Prof. McKay has made extended studies along the line of flavor in butter. Every Kansas butter-maker should try to attend the convention and learn what he can from Prof. McKay and others along this line. The scoring at the National Creamery Buttermakers' Association, in Topeka, last February, shows that Kansas butter-makers need to give more attention to flavor.

"Tuberculosis in Cattle and Its Control," by Prof. James Law, Cornell University, Ithaca, N. Y. Bulletin No. 150. Among the subjects treated are prevalence and relative importance of tuberculosis in man; general mortality; tuberculosis in animals; tuberculosis contagious; channels of infection; conditions which favor tuberculosis; symptoms of tuberculosis in cattle; the tuberculin test; measures for eradication of tuberculosis, and breeding healthy stock from parents with latent tuberculosis. Prof. Law is one of the leading authorities of the world on animal tuberculosis, and this bulletin should be read by every intelligent farmer. It will be sent free upon request. H. M. C.

"By-Products of the Dairy." Bulletin No. 57, Utah Experiment Station, Logan, Utah. A fifty-page bulletin, of which forty pages are devoted to details of experiments in pig-feeding with skim-milk and ten pages to calf-feeding experiments. In the pig-feeding experiments it was found that skim-milk had 63 per cent. greater feeding value when fed with grain than when fed alone. When 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. Hogs fed on pasture did much better than those fed in small pens. Young hogs were in every way the more economic producers of pork. Hogs weighing 200 to 225 pounds required 62 per cent. more food for a pound of gain than hogs weighing 38 to 100 pounds. In calf-feeding profitable results were obtained with skim-milk but not with whole milk. At 4 cents per pound live weight for calves, but 10.7 cents per pound was received for butter fat when whole milk was fed. With the gain in live weight at 4 cents per pound, calves returned 22 cents per hundred for skim-milk. This bulletin is sent free; send for it. H. M. C.

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The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's postoffice, should be signed with his full name, and should be addressed direct to our Veterinary Editor, Dr. Paul Fischer, Professor of Veterinary Science, Kansas State Agricultural College, Manhattan, Kas.

SICK SHEEP.—There is something the matter with my sheep. They act as if their feet were sore, and when they travel they go all humped up. But they seem to be hearty and look very well other ways. There are some more sheep in my neighborhood in the same fix.
Shaw, Kas. J. N. M.

Answer.—Examine the feet of your sheep very carefully and determine whether they really are sore. Find out where they are sore, and whether there are any visible excretions or bad odor. Examine the space between the toes, and the region above the coronet, with especial care. It is possible that your sheep have foot-rot. Report to me what you find.

CONTAGIOUS OR EPIZOOTIC ABORTION.—My cows have been dropping their calves since the first of April at from seven to eight months. I do not think it abortion, for in every case the calf is alive and lives from one to two days. In fact, I have one calf two months old now that was not a matured calf. My cows were well wintered and have been on good clover pasture all summer and seem in good condition every way. I have lost about one-third of my calves this way.
J. P. B.
Everest, Kas.

Answer.—Your cows have contagious or epizootic abortion. Abortion can occur at any time during pregnancy. When an animal aborts and the offspring lives we call it premature parturition. The treatment for contagious abortion consists essentially in the careful and liberal use of antiseptics and the strict observance of the laws of sanitary police. (See article on "Contagious Abortion" in Veterinary column of January 20.)

WARTS.—In regard to your request in Kansas Farmer of August 25, for more details concerning the warts on yearling steers, can say they are round, usually separate or solitary, although often close together, project vertically about one-half inch, rough on the end and of a whitish color. They are not of uniform size, but vary from one-fourth to three-fourths inch in diameter. On one steer I noticed a few warts on the flank, just in front of a hind leg, on the loose skin. The skin does not appear to be otherwise affected, as the hair grows close around the warts. Several smaller warts are on one upper eye-lid, but they do not limit its use. These warts are on both sides of his head and neck. Think the warts have a tendency to come out in clusters, though this is not very prominent.
C. J.
Kinsley, Kas.

Answer.—Paint these "warts" daily with a solution of 40 grains of bichloride of mercury in one-half pint of water. Be careful to cover the whole surface of the "wart" and also a narrow margin of the skin around the same. Keep this up until recovery sets in.

TUBERCULOSIS.—I have a registered Hereford cow, 7 years old, that for a little more than a year has been having lumps on her throat. Last summer the first one came on her left side at about the angle of the jawbone. It caused her to wheeze when she walked rapidly. When it grew to the size of an egg, I opened it and found a gathering of pus. I made a large cut and it all drained out and healed up, leaving a small hard lump. This summer another lump has come in the channel of the jaw and about in line with angles of the two sides. It is not quite so large as the one last year, and from outward appearances should give her no inconvenience. But now she wheezes all the time and can be heard for some distance. She does not eat much of the time, as it seems to affect her swallowing, but stands and breathes with some difficulty, and of course is not doing well. There are also one or two smaller lumps near the second one that seem to be just starting. I do not think it is lumpy-jaw. I have done nothing with this second lump because of its proximity to the jugular vein, and the opening of the first lump did not seem sufficient. The cow is rather wild and has to be handled in a squeeze chute.
L. B. P.
Englewood, Kas.

Answer.—The history and symptoms of this case point strongly to the exist-

ence of tuberculosis. I have directed that my recent bulletin on this subject be mailed to your address. You can then probably form an opinion of your own.

WARTS.—In answer to your questions, asked in the Farmer, in regard to the warts on my mule, will say that they are as large as a hulled walnut. There are two of them. One of them is between where the back-band of the harness works and the shoulder blade, about six inches from the backbone, on the right side. The other is on the right pastern joint, or ankle joint, of hind foot. The mule is 1 year old. The warts are raw and are bothered by flies. They appeared two or three months ago.
A. N. W.
Taw, Kas.

Answer.—Take arsenious acid, 2 drams; caustic potash, 1 dram; gum arabic, 1½ drams; water, a sufficient quantity to make a thick paste. Apply this paste in a thin layer over the whole exposed surface of the wart, using a wooden spatula for applying it. Be careful not to touch any other portion of the animal's body with it, nor your own fingers, as it is a very poisonous and corrosive preparation. Tie the animal in such a way that it cannot lick the warts thus treated. If the warts do not drop off within a week, repeat the application. Have the paste made by a druggist.

QUESTIONS.—(a) In the spring of 1894 I had a sorrel mare, 7 years old, that cut herself in the wire very badly, her right foot being nearly cut off, it being cut from the front just above the hoof down around the inside and down into the frog. It finally healed but left her with a club foot. I did not work her till the spring of 1895, but from then until the fall of 1896 she worked all right, not appearing to be lame. But in October, 1896, her leg swelled to the knee and I let her rest all winter. She soon got well and I have worked her from the spring of 1897 until last cultivating time, when she went lame, her foot and leg swelled up and then her foot just above hoof broke and ran pus in six different places. It broke in July and is still as bad as ever. At one time I bathed it once a day with blue vitriol, which seemed to help some. She is poor and very lame. I am feeding her new corn and alfalfa hay. She has a colt running with her.
(b) Have you ever heard any more of those ticks (ear ticks)? I have had but the three cases. But last spring a Mr. Becker had a big Texas steer that would not eat or drink, would lie down, rub his horns on the ground, bellow and then run around like mad, kicking at some imaginary object, shake his head, etc. I went and saw the animal myself. Mr. B. thought it was stalk sick. In about four days it died and Mr. B.'s son skinned it, and when he cut off its ears, he said "they were just full of those things." That was when I showed him those ticks I sent you. Now, did the ear ticks set him so crazy that he died of starvation?
E. R. S.
Kanopolis, Kas.

Answer.—(a) Your horse has a fistula of the lateral cartilages of the hoof. The only practical remedy for this, in your case, is time, patience, antiseptics and bandages; each ingredient in this formula is of about equal value. Under some circumstances a rapid recovery can be brought about by performing a skillful surgical operation and removing the cartilages directly. In your case that would, of course, not be practicable. Continue the use of sulphate of copper in saturated solution; inject it twice daily into every opening and use a knife, if necessary, to provide for perfect drainage wherever you can. As soon as the injections have acted long enough to produce soreness and bleeding discontinue the use of the copper sulphate solution and use 5 per cent. creolin solutions, and continue their use indefinitely. During all the time keep the hoof as dry as possible by providing a proper place to stand and by using absorbents in the form of absorbent cotton or tow applied with tightly and evenly-wrapped bandages. Apply the injections and renew the bandages and absorbent material twice daily. Feed animal easily digestible food and keep its bowels loose.
(b) No, I have heard nothing further of those ticks that you speak of, but I would still like very much to procure other specimens. Cases similar to the one you mention have, however, been observed. Gassner has observed and described a case where the ear of a cow was thus infected with a mite, *Dermanyssus avium*, and led to peculiar cerebral disturbances; and Ostertag found a related mite, *Gamasus auris*, in the ear of a cow that would shake her head uninterruptedly for hours at a time.

The attention of our lady readers is called to the advertisement of Boggs & Buhl (Dept. G. G.), Allegheny, Pa. Write them for catalogue and prices.

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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. **WEST DISINFECTING CO.,** 112 E. 57th St., N. Y. City, 1361 Indiana Ave., Chicago.

MARKET REPORTS.

Kansas City Live Stock.

Kansas City, Sept. 19.—Cattle—Receipts since Saturday, 8,338; calves, 999; shipped Saturday, 1,857 cattle; 452 calves. The market was steady to weak in the native division and active and steady in the quarantine division on desirable grades. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.

No.	Ave. Price.	No.	Ave. Price.
22.....	1,287 15.25	38.....	1,264 14.50
23.....	1,180 5.05	1.....	1,210 3.75

WESTERN STEERS.

49.....	1,067 14.55	50.....	1,302 14.50
26.....	1,023 3.80	151.....	1,063 3.65
18.....	954 3.60	14.....	904 3.35
74.....	993 3.30	1.....	1,180 3.25

NATIVE HEIFERS.

2.....	935 13.85	1.....	890 13.75
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NATIVE COWS.

1.....	1,150 13.25	1.....	1,290 13.00
3.....	1,016 2.75	7.....	971 2.50
1.....	700 2.40	9.....	878 2.25
1.....	900 2.00	1.....	750 1.00

NATIVE FEEDERS.

45.....	968 14.35	2.....	1,240 14.35
45.....	1,014 4.20		

NATIVE STOCKERS.

58.....	558 14.50	38.....	750 14.35
1 J.....	600 3.50		

Hogs—Receipts since Saturday, 2,055; shipped Saturday, 180. The market was strong and 5c higher than the opening Saturday. The following are representative sales:

57.....	287 13.85	65.....	315 13.82 1/2	25.....	208 13.82 1/2
62.....	259 3.82 1/2	76.....	280 3.82 1/2	74.....	255 3.81
59.....	283 3.80	63.....	273 3.80	40.....	212 3.80
63.....	242 3.80	65.....	256 3.77 1/2	5.....	224 3.77 1/2
70.....	242 3.75	82.....	223 3.75	73.....	174 3.75
74.....	202 3.75	84.....	184 3.75	77.....	205 3.75
75.....	250 3.75	16.....	227 3.75	44.....	195 3.75
83.....	282 3.75	80.....	235 3.75	78.....	227 3.75
82.....	247 3.75	64.....	234 3.75	7.....	175 3.72 1/2
66.....	325 3.72 1/2	75.....	250 3.72 1/2	46.....	267 3.70
85.....	242 3.70	5.....	124 3.50	5.....	142 3.50
1.....	120 3.50	12.....	183 3.25	1.....	280 3.25
1.....	340 3.25	1.....	370 3.25	1.....	580 3.25
1.....	300 3.25	2.....	300 3.25	2.....	235 2.75

Sheep—Receipts since Saturday, 6,097; shipped Saturday, 3,112. The market was active and steady, with stockers and feeders strong. The following are representative sales:

24 sw. lbs....	71 14.50	499 Utah.....	111 14.00
38 sw. sh....	103 3.90	101 stk. lbs....	62 3.85
45 stk. lbs....	48 3.50	71 sw. fdrs....	75 3.40
19 stk. lbs....	54 3.50	91 feeders....	90 3.30

Horses and mules—A heavy run of horses and a fair supply of mules came in and there was a large attendance of buyers. Southern buyers predominate. For the many inquiries the dealers are hopeful of a healthy business at fully steady prices during the week.

St. Louis Live Stock.

St. Louis, Sept. 19.—Cattle—Receipts, 5,007; market steady for natives and steady to a shade lower for Texans; native shipping steers, 4.00 @ 5.65; light and dressed beef and butcher steers, 13.00 @ 15.25; stockers and feeders, 3.00 @ 4.50; cows and heifers, 2.00 @ 4.80; Texas and Indian steers, 13.10 @ 14.05; cows and heifers, 12.00 @ 13.60.

Hogs—Receipts, 2,500; market strong to 5c higher; yorkers, 13.85 @ 13.95; packers, 13.80 @ 13.90; butchers, 13.90 @ 14.00.

Sheep—Receipts, 1,200; market steady to strong; native muttons, 13.75 @ 14.25; lambs, 14.00 @ 15.85.

Chicago Live Stock.

Chicago, Sept. 19.—Cattle—Receipts, 19,000; best firm; others 10c lower; beefs, 14.00 @ 14.75; cows and heifers, 12.00 @ 14.70; Texas steers, 13.10 @ 13.85.

Hogs—Receipts, 33,000; market active and steady to shade higher; light, 13.65 @ 14.07 1/2; mixed, 13.65 @ 14.10; heavy, 13.55 @ 14.07 1/2; rough, 13.55 @ 13.70.

Sheep—Receipts, 22,000; market steady to 10c lower; natives, 12.90 @ 14.50; westerns, 13.50 @ 14.40; lambs, 14.00 @ 14.25.

Chicago Grain and Provisions.

Sept. 19. Opened High'st Low'st Closing

Wht—Sept....	65	65 1/2	64 1/2	64 1/2
Dec....	62 1/2	62 1/2	62	62 1/2
May....	64 1/2	64 1/2	63 1/2	63 1/2

Corn—Sept....	29 1/2	29 1/2	29 1/2	29 1/2
Dec....	29 1/2	29 1/2	29 1/2	29 1/2
May....	31 1/2	31 1/2	31 1/2	31 1/2

Oats—Sept....	20 1/2	20 1/2	20 1/2	20 1/2
Dec....	20 1/2	20 1/2	20 1/2	20 1/2
May....	22 1/2	22 1/2	22	22 1/2

Pork—Sept....	8 15	8 15	8 15	8 15
Oct....	8 37 1/2	8 37 1/2	8 20	8 25
Dec....	8 37 1/2	8 37 1/2	8 20	8 25

Lard—Sept....	4 70	4 70	4 65	4 67 1/2
Oct....	4 70	4 70	4 65	4 67 1/2
Dec....	4 80	4 80	4 72 1/2	4 75

Ribs—Sept....	5 25	5 25	5 17 1/2	5 22 1/2
Oct....	5 25	5 25	5 17 1/2	5 22 1/2
Dec....	4 70	4 70	4 67 1/2	4 70

Kansas City Grain.

Kansas City, Sept. 19.—Wheat—Receipts here to-day were 303 cars; a week ago, 533 cars; a year ago, 421 cars. Sales by sample on track: Hard, No. 1, nominally 63 @ 64c; No. 2 hard, 61 @ 63 1/2c; No. 3 hard, 58 @ 61 1/2c; No. 4 hard, 54 @ 59 1/2c; rejected, 48 1/2 @ 59c; no grade, 55c. Soft, No. 2 red, 64c; No. 3 red, 60c; No. 4 red, 55 1/2 @ 59 1/2c; rejected, 51 @ 54c. Spring, No. 2, 55 @ 61c; No. 3 spring, nominally 57 @ 60c; rejected, nominally 50 @ 55c.

Corn—Receipts here to-day were 38 cars; a week ago, 27 cars; a year ago, 85 cars. Sales by sample on track: Mixed, No. 2, 27 1/2 @ 28c; No. 3 mixed, 27 1/2 @ 27 1/2c; No. 4 mixed, nominally 26 @ 27c; no grade, nominally 25 @ 26c. White, No. 2, 29 1/2c; No. 3 white, nominally 28 @ 28 1/2c; No. 4 white, nominally 27c.

Oats—Receipts here to-day were 41 cars; a week ago, 28 cars; a year ago, 30 cars. Sales by sample on track: Mixed, No. 2, 24c; No. 3 mixed, 22c; No. 4 mixed, nominally 20 @ 21c. White, No. 2, 25 @ 25 1/2c; No. 3 white, 24 1/2 @ 25c; No. 4 white, 24c.

Rye—No. 2, 47c; No. 3, nominally 44c; No. 4, nominally 42c.

Hay—Receipts here to-day were 38 cars; a week ago, 55 cars; a year ago, 26 cars. Quotations are: Choice prairie, 14.00 @ 15.50; No. 1, 13.75 @ 15.00. Timothy, choice, 17.00 @ 17.25. Clover, 15.50. Alfalfa, 15.50. Straw, 14.00.

Kansas City Produce.

Kansas City, Sept. 19.—Eggs—Strictly fresh, 11 1/2c per doz.

Butter—Extra fancy separator, 19c; firsts, 17 1/2c, dairy, fancy, 16c; store packed, 14c; packing stock, 10 1/2c.

Poultry—Hens, 7 1/2c; broilers, 9c per lb.; roosters, 15c each; ducks, 5c; young ducks, 6 1/2c; geese, 4c; goslings, 6 1/2c; turkeys, old, 9c; young, 9 @ 10c; pigeons, 50c per doz.

Fruits—Grapes, 17 1/2 @ 22 1/2c per peck. Peaches, 60 @ 80c per 1/2 bu. Apples, home grown varieties, 12.50 @ 3.00 per bbl; Canada, \$3.00 @ 3.50; Michigan, \$3.00; California Belleflower, \$1.50 per box.

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, 30 @ 50c per bu. Lettuce, home grown, 50 @ 60c per bu. Onions, new, 25 @ 40c per bu. Beets, 30c per bu. Cabbage, home grown, 85 @ 90c per 100-lb crate. Celery, 30 @ 15c per doz.

Potatoes—Home grown, 40 @ 50c per bu. in ear lots. Sweet potatoes, home grown, 60c 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.

FOR SALE—Three yearling English Berkshire hogs, \$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, \$8 per dozen. H. A. Thomas, Soranton, Kas.

FOR SALE—Eight Poland-China shoats, two sows, six boars, all eligible to record; price, \$5 each. Also, Cora Bess No. 88554, one of the most handsome and finely-bred sows in Kansas, and the mother of sixty pigs in seven broods. Removal, cause for selling. Write or come quick. F. S. Jackson, Eureka, Kas.

WE WANT RELIABLE MEN in every locality at once to sell to farmers, threshermen and mills our high-grade lubricating oil, 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.

GHOST 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 Cruickshank bull, My Lord 116563, bred by Col. Harris; sire Imp. Spartan Hero 77982; dam Imp. Lady of the Meadow (Vol. 30, p. 615). For a pure-bred Cruickshank 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 Bonz, Linwood, Leavenworth Co., Kas.

TO STOCKMEN—Feed Mills and Corn-Shellings 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. Moier's Barber College, St. Louis, Mo.

WILL EXCHANGE—Pedigreed fox terriers, greatest ratters bred, for Berkshires or Barred Plymouth Rocks. W. T. Ballagh, Nevada, Mo.

WE MAKE A GOOD FARMER'S SPRING WAGON, on 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 \$10. W. S. Powell, Moline, 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 Klever's 1st Model 18245 S. What's Wanted Jr. 2d 18534, and B's Black U. S. 19357. 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.

RED RUSSIAN SEED WHEAT—For sale at \$1.10 R per bushel sacked, at the Kansas Seed House F. Barteldes & Co., Lawrence, Kas.

DAIRY WAGON FOR SALE—Good two-horse covered dairy wagon, custom made. A. E. 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. E. W. Melville, Eudora, Kas.

SHORT-HORNS FOR SALE—Forty-six cows and 5 heifers, Cruickshank, Young Marys, Rose of Sharon and others; an extra lot. Nearly all were sired by the grand Cruickshank Royal Prince 100646. Six bulls in prospect for service, sired by Young Mary bull, Glendon 118371. Parties met by appointment. Theodore Saxon, St. Marys, Pottawatomie Co., Kas.

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

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

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

FOR SALE—Five first-class registered Clydesdale stallions. H. W. McAfee, Topeka, Kas.

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

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

FOR SALE OR EXCHANGE—Two Galloway bulls Address W. Guy McCandless, Cottonwood Falls, Kas.

640 ACRES ARKANSAS LAND—Two miles from station, to trade on Kansas farm. Will pay balance or assume incumbrance. E. W. Melville, Eudora, Kas.

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

LIVE STOCK AUCTIONEERS.

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

G. W. STORRS,

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

J. N. HARSHBERGER,

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

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.

PONTING'S ANNUAL PUBLIC SALE

At Homestead Farm, Moweaqua, Ill., Wednesday and Thursday, Oct. 19-20, 1898.

70==REGISTERED HEREFORDS==70

40 YOUNG COWS AND HEIFERS--30 BULLS.

28 HACKNEYS AND 20 DRAFT HORSES.

We believe that none better will be offered in this country this year. Write for sale catalogue that gives full particulars.

COL. J. W. JUDY,
COL. J. W. SPARKS, } Auctioneers.
COL. T. W. WARD,

TOM C. PONTING & SONS,
MOWEAQUA, ILL.

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

The Prize-winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District fair, 1893; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 8341, Black Joe 28603, World Beater and King Hadley. For Sale, an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

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. Laird of Linwood was by the greatest bred bull of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. Lord Mayor heifers bred to Laird of Linwood for sale. Also bred Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

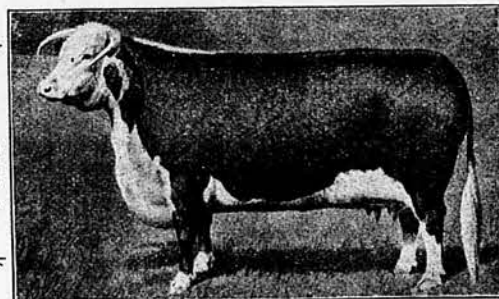
Address T. P. BABST, PROP., DOVER, SHAWNEE CO., KAS.

SUNNY SLOPE,

EMPORIA, KANSAS.

WILD TOM
51592,

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



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

Registered Hereford Cattle.

At the spring sales of 1898 we sold the highest-priced male and highest-priced female, and also had the highest averages for 5, 10, 20, 40, 60, 80 and 100 head. These averages were higher than that of any Hereford sale of recent years. Bulls 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.

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.

THAT NEW POULTRY HOUSE.

With the coming of the fall months comes reminders to many that winter, with its chilly blasts, will soon be with us again; and in looking over the farm to see what preparations for its advent are necessary, many will doubtless find that while the barns for horses and cattle and houses for the hogs are in reasonably good repair and will keep the stock fairly comfortable, at least, "the helpful hen" has largely been left to roost in trees, open sheds, on the wagon or farm machinery or any other place she could find; in other words, to shift for herself, and then the owner would often wonder why there were no winter eggs.

Practical poultrymen have long been alive to the fact that, to succeed with fowls, they must have warm and comfortable quarters. And I am glad to be able to say, from personal observation, that farmers are awakening to the fact that poultry-raising on the farm does pay, and that the fowls need as comfortable houses, built especially for their benefit, as any other class of stock. As evidence that the farmer is so awakening, one need only take a short trip through the country and observe the preparations made during the last few years, and still being made, for the benefit of their poultry. Of course, every farmer has not yet become fully aroused, but many have, and the leaven is still working; and I prophesy that in the next few years greater strides will be made in this direction than ever before.

But, while it is true that many have recognized the necessity of providing proper shelter, they have not put the thought on the matter they would be justified in doing, very little attention being paid to the convenience of the house either for the fowls or for the one caring for them. This is as important, in my estimation, as to have a house; and, while many are building new houses, they are of all kinds, sizes and shapes, little attention being paid as to the best plan as to cost, convenience or adaptability to the needs and requirements of the fowls.

I have been building a series of houses here at Excelsior farm this season, plans of which I give below, which, after much study and experimenting, I find gives me better satisfaction than anything I have ever seen or used. As will be seen, by reference to the cuts, the house is very compact, giving much room in a small compass, and with the minimum amount of roofing, which is considered by every one as the most expensive part of any building. It is also adapted to any size flock, as it can be built larger or smaller as the size of the flock may require, although where more than fifty fowls are kept it would be better to build more houses. The house shown is built double, affording comfortable quarters for fifty fowls, twenty-five on each side, and this number is enough to have together for best results. Each fowl will have nearly ten square feet of floor space, and as yard for each division is 25x100 feet, each fowl will have 100 square feet of yard room, which, by all authorities, is considered right for fowls in confinement. Fences shown by dotted lines in Fig. IV., F.F.F.

Each house is 16x18 feet on the ground, and second story is 12x16, with a hallway three feet wide running the entire length, the hall floor being raised eighteen inches above the sills. The dimensions, therefore, of each roosting-room being 8x9 feet, while the scratching-room beneath, on the ground, is 8x18 feet. The frame is of 2x4's, sills being doubled or 4x4. Siding is of No. 2 ship-lap, dressed side turned in, put on up and down; over this is placed a good grade of felt paper (I use "Neponset" black building paper), then finished with weatherboarding or drop siding, as fancy may dictate. Roof is also of the ship-lap, dressed side in, and finished with one thickness of black "Neponset" and one of "Neponset Red Rope Roofing," or it may be shingled over the first layer of paper. Floor of roosting-rooms is

also of ship-lap, or may be of matched flooring.

This method of building, together with the low roof of the roosting-room, makes a very warm house, and one which will not show frost on the inside in cold weather, to make it damp. House, of course, faces south or southeast, in order to have full benefit of the sun in winter. By reference to Fig. I. it will be seen that the extension of the scratching-rooms in front, beyond the roosting-rooms, is covered with glass, like a greenhouse or hot-bed. Floors of scratching-rooms are kept covered with cut straw or leaves, four to six inches deep, in which all grain is scattered, making biddy scratch for her living and thus obtain needed exercise. Floors of roosting-rooms are kept covered with sand or dry soil to facilitate cleaning and to absorb all foul odors, and are swept out thoroughly at least once a week and fresh sand or soil spread on them.

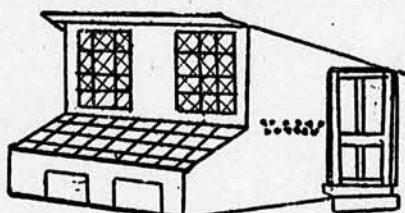


Fig. I. shows the house in perspective, the dotted lines indicating position of roosting-room floors.

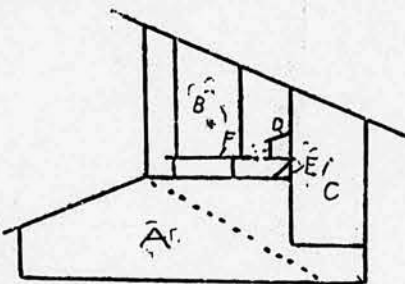


Fig. II. shows cross section of house, from which will be seen position of floors to roosting-rooms and hallway. A. is the scratching-room, extending full width of building, 8x18 feet, and under hall floor. B. is the roosting and nesting-room; C. the hall or passageway; D. shows position of nests, which open into hall to gather eggs; E. is the troughs for soft food, which is reached by fowls through rack placed at an angle of 45 degrees, slats being three inches apart, giving free access to trough, but prevents getting into it with their feet, and also crowding, each fowl having an equal chance. F. shows position of roosts, which are placed from twelve to twenty-four inches from floor, according to breed.

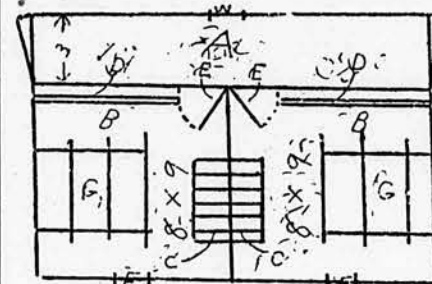


Fig. III. shows floor plan and arrangement of roosting-rooms. A. is the hall, 3x16; B.B. the roosting-rooms, 8x9; C.C. the trap doors, giving entrance to scratching-rooms below. These doors are hinged to open against the central partition, and are opened and closed by cords and pulleys, from the hall. D.D. are the feed troughs, over which are the nests, as shown in Fig. II. at D. E.E. are the doors from the hall to each room, hung to partition, and swinging back against same when open, and arranged to close themselves by spring hinges or cord and weight. F.F. are the windows, made removable for hot weather, and covered on outside with wire netting. G.G. are the roosts, arranged as shown, and hinged to side of house, to be raised when cleaning; outside supported by wires extending to roof or ceiling. Hinges are loose pin butts, pins of which can be slipped out and roost frames removed when necessary, without removing a screw.

Fig. IV. shows floor plan and arrangement of scratching-rooms, 8x18 feet. A.A. are the dust boxes, at least four feet square and six inches deep, kept supplied with road dust or sifted coal ashes. B. is the water fountain, placed in par-

How Relief Came.

This is the sequel of a terrible calamity which affected many sections of the country some years ago. A host of victims suffered disease and death. The survivors have now a new reason to rejoice.

About seven years ago the La Grippe visited various sections of the country in its deadly might scattering disease and death among its hosts of victims.

Most of those afflicted who escaped death then, have lived on in suffering, broken in health and ambition; for the after-effects of this disease are dangerous.

A large portion of the survivors have a feeling of oppression in the chest.

A little exertion causes a violent action of the heart, described as "palpitation."

There is mental anxiety, depression, blueness of the skin, indicating impaired circulation of the blood.

The sluggishness of its circulation impairs the functions of most of the organs; the stomach and intestines fail to perform their work, while the appetite and digestion become seriously affected.

This complaint has baffled eminent physicians and exhausted the results of pharmacopoeia.

Recently, however, a means for a cure has been obtained.

Among those who have been restored to health by it is Herman H. Eveler, of 811 W. Main Street, Jefferson, Mo., a resident of that city for thirty-eight years, well known as a successful contractor.

He was one of the victims of the "Grippe" seven years ago and has since been troubled with its after-effects.

"That he lives to-day," he says, "is due to a remarkable occurrence."

"I was taken with a malady just after the 'Grippe' visited this section and caused so

many fatalities about seven years ago.

"I was troubled with shortness of breath, palpitation of the heart and a general debility. My back also pained me severely."

"I tried different doctors and carefully followed their directions, but no benefit was apparent. I used numerous remedies that were highly recommended but no satisfactory results were obtained."

"I began to give up all hope of receiving relief. My condition was deplorable."

"In reading a St. Louis newspaper I noticed an article extolling Dr. Williams' Pink Pills for Pale People."

"After making inquiries regarding them I concluded to give the pills a thorough trial."

"I used the first box and was wonderfully relieved."

"I bought two more boxes and continued taking them."

"A marked improvement was soon noticeable; the shortness of breath, the palpitation of my heart and kindred ailments began to abate."

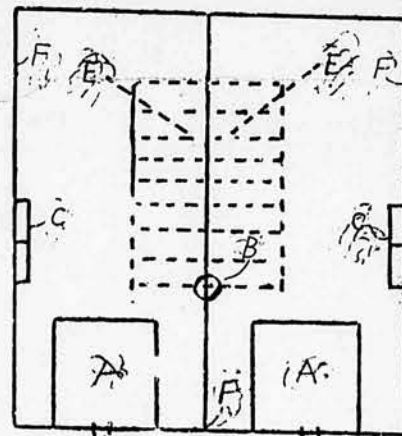
"After taking four boxes of these pills, I was restored to good health."

"I feel like a new man now, and can transact my business with increased ambition."

To add strength to his story Mr. Eveler made affidavit before Notary Public Adam Poutsong and he will gladly answer inquiries to those enclosing stamp for reply.

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

titution and accessible from both sides, and under which a lamp closet can be placed, to keep water from freezing, if



thought advisable. C.C. shows position of grit and oyster shell boxes; D.D. are doors, giving access to yards outside. E.E. are the ladders or stairways, connecting with trap doors above, and by which fowls pass up and down between roosting- and scratching-rooms.

In the hallway there is a space of two feet between floors of hall and roosting-room, in which is fitted a movable frame covered with netting, to facilitate putting in and taking out litter in scratching-room. A movable sash can also be placed in glass roof for same purpose. A small window, 2x2 feet, is also placed in hallway on north side of building (W. in Fig. III.) for light and ventilation in summer.

Nests and everything save walls and floors are removable for cleaning, making it easy to keep clear of vermin of all kinds.

From this detailed description it will be seen that everything necessary for the fowls' comfort has been thought of and arranged for, as well as convenience in caring for them. I have put much time and thought on this plan, and feel safe in saying I have the best-arranged house in this part of the country.

Some of the advantages may be enumerated as follows: The house is very warm in winter and cool in summer. It is so arranged that all care for the fowls is done from the hall—feeding, watering, gathering eggs, etc., none of the rooms having to be entered except to clean, which, with this arrangement, is a small matter. It is superior to a continuous house with many apartments, in that in case any disease makes its appearance, only two pens can be affected, the houses being built at least fifty feet

from each other. It is superior to the plan of having the house and scratching-shed side by side, in that it economizes space and roof, and the front roof of scratching-room being of glass, makes it warmer and lighter for the fowls in winter, when every bit of sun is needed.

I venture to say that in this house a flock can be kept confined all winter without any run outside whatever, and come out in spring in perfect health and vigor, if properly fed, and at the same time yield a larger return in eggs than if allowed full freedom. Another advantage is that there are no floors near the ground to harbor rats or other carnivorous animals.

If economy in building is necessary, old lumber can be used, so it is reasonably straight, and lined inside with tarred paper, or "Neponset," making it both warm and cheap. It is also possible that oiled muslin might be used in place of glass for roof to scratching-room, such as is used for hot-beds and cold-frames, but should be well supported underneath to keep it from bagging and holding water or snow.

From this description any one at all handy with tools ought to be able to build this house, from the plans here given, but in case further help is needed, I will send full working plans and details with bill of lumber, for 50 cents.

C. B. TUTTLE.

Excelsior Farm, Topeka.

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.

Will you kindly give us, through the columns of the Kansas Farmer, a practical method of getting rid of lice on chickens? We have been troubled with lice for many years, notwithstanding we have used many different "lice-killers" and insect powders. We have painted roosts, fumigated, washed sides of house and roosts with coal oil and carbolic acid, have dusted all of our poultry with insect powder, and still we have the lice with us. Frequently old and young get droopy and die, and we find that they are full of lice. I sometimes think that I will sell every chicken on the place and start again with some that are free from lice. But if you can tell us of a sure way of getting rid of the pests I am sure you will confer a great favor, not only on us but on many other Kansas Farmer readers.

The lice that we are troubled with are body lice of different colors, large and small.

Walnut, Kas.

Answer.—The editor's sympathy is with this correspondent. The fight is

"to the death"—either of the lice or the chickens. But do not give up. Keep everlastingly after them, and the lice must succumb finally. Nothing is said as to the house. It is possible that it is old and full of cracks and crevices, that it is almost impossible to get anything into to kill the lice, but which form the ideal place for them to propagate in. If fumigating is resorted to, the house must be made perfectly tight, the nearer air-tight the better. If the house is old and shakily, better make a bonfire of it and the lice, and build another on a better and more modern plan. See plans in this issue.

It would seem that in this case proper effort has been made and along the lines I have already suggested (see issue for July 7), but perhaps the insect powder used was old and had lost its strength, in which case the same amount of dirt would accomplish as much good. If the house is too good to destroy, and can be made perfectly tight, try fumigating with bi-sulphide of carbon, if you can get it. This works differently than the fumes of tobacco or other powders in that the fumes are heavier than air, and hence settle to the floor; therefore, place pan or dish of bi-sulphide on a box in the house, so as to reach all parts of it with the fumes. Then whitewash thoroughly with hot wash—if boiling, all the better—adding a good strong dose of carbolic acid to the whitewash. Having treated the house, now turn your attention to the fowls, and get them clear or the house will soon become infested again. Turn to issue of July 7, and read "Seasonable Hints," and follow out the suggestions there given. Try the barrel plan with a good fresh powder, or the box plan with liquid lice-killer, and report results. I have always found these methods to give good results. But whatever you do, do thoroughly—no half-way measures will be efficacious.

Lime Pickle for Eggs.

The season of high-priced eggs is almost here and some farmers will find it profitable to put some in pickle against the season of scarcity. They will answer for cooking and can be used when 40-cent eggs would be thought too expensive. The common way and the most suitable for farmers' use is to pack them in thick whitewash. Eggs are simply placed in a barrel and the lime wash, stirred and strained, is poured over them, then the barrel should be put in a cold cellar. If intended for market, the eggs should be very carefully cleaned when taken from the barrels. Only eggs that are fresh when packed will keep at all well by this method.

For winter use the best time to pack eggs is in early fall rather than in spring.

In making a mustard plaster, take a piece of lard and stir the dry mustard into the lard until it is a thick paste and will just spread. Spread on a piece of lawn and apply to the affected part. This will not blister.

Linens that have been stained by tea or coffee may be cleansed by moistening the spots with water and holding them over the fumes of a small piece of burning sulphur or a few sulphur matches. Wash immediately in water in which a little ammonia or soda has been dissolved. Stains that nothing else will remove are often taken out by the vapor arising from burning sulphur, but the material must be washed thoroughly at once.

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.

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The easiest-working, closest-cutting, simplest, strongest and handiest dehornor is the latest **IMPROVED CONVEX DEHORNER**. Never crushes the horn nor pulls it apart. Made on an entirely new principle. Catalogue free. **WEBSTER & DICKINSON**, Box 60 Christiana, Pa. Western trade supplied from Chicago salesroom.



Manly Strength Without Drugs.

Nothing is more inspiring to both men and women than manly strength.

There are millions of men to-day who look back upon their lives with regret. They find that from youthful errors or later excesses, overwork, business and family worries, they have robbed themselves of perfect manhood. They suffer from Drains, Nervous Debility, Impotency, Lamé Back, Varicocoele, etc., and nine out of every ten have gone through a tedious drug treatment. Reader, I have been a specialist for over 30 years, and have used every drug known to science for such, and say to you, as man to man, not one case in a hundred can be cured by drugs. Why do you, then, believe in them and pass by the one natural remedy without so much as giving it a thought? I refer to that potent force, Electricity, given direct to man by nature. In my wonderful

ELECTRIC BELT

and Electric Suspensory I offer a complete self home treatment which is now known and used the world over. I received over 5,000 bona fide unsolicited testimonials of absolute cures during 1897. Note a sample laid on my desk as I am writing this:

DR. SANDEN: I have been a sufferer from the effects of youthful indiscretion for about four years, and after a trial of one of your belts can say I am entirely satisfied with it, and can recommend it to all who are suffering from the troubles that proceed from that source as one of the best cures for them.

J. SMITH, Newtown, N. Y.

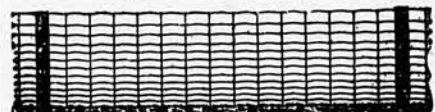
Belt is worn at night. It soothes, strengthens and cures you while asleep. Currents instantly felt by wearer or we forfeit \$5,000. Send for

Free Book,

"Three Classes of Men," which explains all, mailed in plain sealed envelope, along with this month's "Health World," containing hundreds of testimonials received in past few days, or, if you live near enough, drop in and consult me free of charge. DR. M. F. SANDEN, 826 Broadway, New York, N. Y.

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with patent self feeder and automatic block placer. No more crushed arms, hands or feet. \$12.50 in feed opening. Automatic condensing feed hopper. Strong, fast, durable and long lived. Catalogue Free. Write for what you want. **COLLINS PLOW CO.,** 1120 Hampshire St., QUINCY, ILL.



THE GREAT WAR will be followed by prosperous peace. Fix up the old farm. You'll need some new fence. The Page now sells at peace prices. **PAGE WOVEN WIRE FENCE CO.,** Adrian, Mich.



Assure between burrs in grinding is carried on chilled roller bearings. Large inside burr revolves twice to sweep's one. Ordinary length sweep. **DAIN MFG. CO.,** Carrollton, Mo.

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and we will send you this OUR SPECIAL HIGH GRADE 1898 Model Gents' or Ladies' Bicycle by express C. O. D. subject to examination. You can examine it at your nearest express office and if found perfectly satisfactory, exactly as represented and the most wonderful Bicycle Bargain you ever saw or heard of, pay the express agent the balance, \$18.75 and express charges.

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\$50.00. Strictly up-to-date. Covered by binding guarantee. Has all the good points and late improvements of all high-grade bicycles with the defects of none. Our SPECIAL Bicycle at \$19.75 is made by one of the largest, oldest, best known and most reliable bicycle makers in America. The identical same bicycle as is sold everywhere under their special name and name plate at \$40.00 to \$50.00, never less. The name of the maker is a household word among bicycle riders. You will recognize the bicycle the moment you see it as the same high-grade bicycle sold everywhere at \$40.00 and upwards. In offering \$5,000 at the unheard of price of \$19.75, we are pledged not to use the maker's name or nameplate.

DESCRIPTION. OUR SPECIAL 1898 Bicycle now offered at \$19.75 is made from the very best material throughout, only first-class mechanics are employed and the finish is such as can be found only in the highest grade wheels. FRAME is 24 inches deep, true diamond, (Ladies' is 22 inches, curve shape with two center braces) 1 1/2 inch highest grade imported German seamless tubing. FORK CROWN, drop forged, highly polished and finished and nickel-plated. HANDLE-BARS, very latest and best wood or nickel, up or down curve or ram's horn. WHEELS, highest grade, 28-inch. SPOKES, highest grade, 14-16 swaged. HUBS, latest large tubular, turned from bar steel. RIMS, highest grade non-warpable wood. TIRE, our own special guaranteed strictly high-grade single tube pneumatic, complete with pump and repair kit. CRANKS, highest grade forging, 6 1/2-inch throw, highly nickel-plated. PEDALS, handiest and best rat trap. BEARINGS, highest grade tool steel, highly finished. SPROCKETS, finest forgings, heavily nickel-plated, detachable. SADDLE, strictly high-grade, padded. Weight, 25 lbs. Full ball bearing with ball retainers throughout. Finished in the highest possible enamel in blue, black or maroon, and shipped complete with tool bag, pump, wrench, oiler and repair kit.

OUR GUARANTEE. We issue a written binding, one year guarantee, during which time if any piece or part given out by reason of defect in workmanship or material, WE WILL REPLACE IT FREE OF CHARGE. With care the bicycle will last 10 years.

SEND US ONE DOLLAR State whether Ladies' or Gents', kind of handle bars and color of finish and we will send you the bicycle by express C. O. D. subject to examination, you can examine it at the express office and if you find it equal to any bicycle you can buy elsewhere for \$40.00 to \$50.00, and such a bargain as you never saw before, pay the express agent the balance, \$18.75, and express charges. OUR FREE BICYCLE CATALOGUE shows a complete line of bicycles at \$12.95, \$19.75, \$22.50, etc. Also a full line of bicycle sundries, bicycle clothing, etc. **SEND FOR IT.**

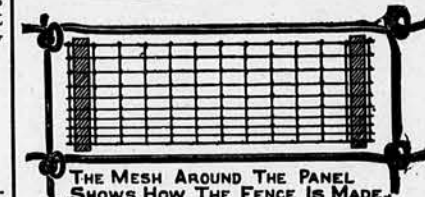
AS TO OUR RELIABILITY. We refer to the publishers of this paper, our customers everywhere, Metropolitan Nat'l Bank, Nat'l Bank of Republic, Bank of Commerce, Chicago; German Exchange Bank, New York; any business house or resident of Chicago. We occupy entire one of the largest business blocks in Chicago, employ 700 people, and we guarantee to save you \$20.00 to \$30.00 on a high-grade bicycle. Order today. Don't delay. Only \$5,000 to be sold at \$19.75.

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Every objection to hog waterers overcome. Valve eight inches in water; can not freeze; has a brass float which can not rust, water log, or allow mud to collect under it. Attachable to tank, barrel, box or pipe. Will water three hundred hogs a day, any number of sheep, calves, chickens, ducks, horses and cattle. Sent on trial, express prepaid, to be paid for if satisfactory. Costs nothing to try. Send for one. Our offer means something. Costs twice as much to manufacture as any other; retails the same, \$3.00. Address,

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PERFECT FARM FENCE Made of best doubly annealed galvanized steel wire. Top and bottom wires No. 9. All other wires No. 11. We use the strongest stay wire in any woven wire fence on the market—hence more strength and durability.

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Where we have no agents a liberal discount will be given on introductory order. Reliable farmer agents wanted in every township. Send for catalogue and prices.

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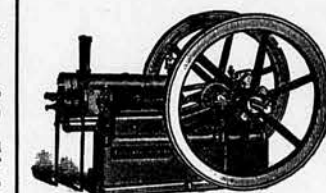
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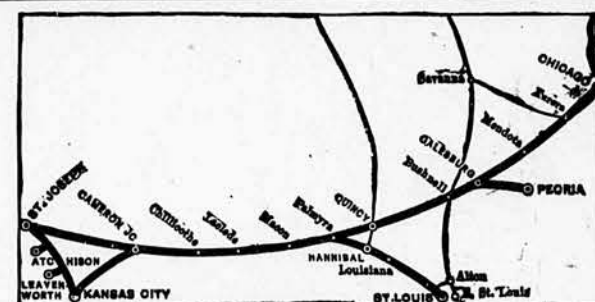


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Short-horn cattle, Percheron and Roadster horses and Shetland ponies—stock of each class for sale. A car-load of extra good young bulls.

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For sale, five young pure-bred bulls of serviceable age. Also one car-load of high-grade cows and one car bull calves.

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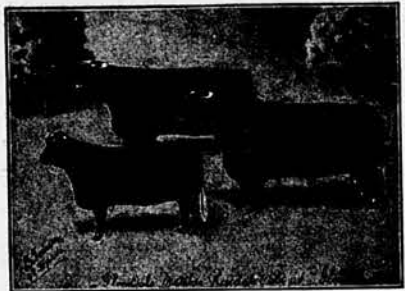
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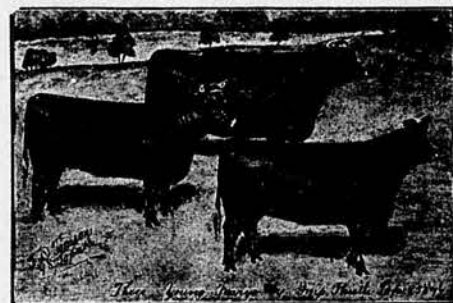
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Leading Scotch and Scotch-topped American families compose the herd, headed by the Cruickshank bulls, Glendon 119370, by Ambassador, dam Galanthus, and Scotland's Charm 127264, by Imp. Lavender Lad, dam by Imp. Baron Cruickshank. Young bulls for sale.

C. F. WOLF & SON, Proprietors.

ELDER LAWN HERD SHORT-HORNS.

THE Harris bred bull, GALLANT KNIGHT 124466, a son of Gallahad, out of 8th Linwood Golden Drop, heads herd. Females by the Cruickshank bulls, Imp. Thistle Top 83878, Earl of Gloster 74523, etc. Size, color, constitution and feeding qualities the standard. A few good cows for sale now, bred to Gallant Knight.

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THE STRAY LIST.

FOR WEEK ENDING SEPT. 8, 1898.

Reno County—W. S. Yeager, Clerk.

STEER—Taken up by I. J. Teter, in Hutchinson (P. O. Hutchinson), August 2, 1898, one black steer, medium size, Z on left shoulder, X I K on left hip; valued at \$25.

Wyandotte County—Leonard Daniels, Clerk.

HEIFER—Taken up by Nellie Ward Albright, in Kansas City (P. O. Eighteenth and State avenue, Kansas City), August 9, 1898, one light red heifer, 1 or 2 years old, with some brindle stripes, brands none; valued at \$10.

Clay County—J. G. Cowell, Clerk.

MARE—Taken up by John Emerich, in Athelstane tp., June 19, 1898, one sorrel mare about 4 years old, white blaze on forehead, white on all four legs, no brands; valued at \$20.

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.

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J. G. Peppard

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Single or car lots. First-class, all ages, at prices that will sell them. Will spare 50 breeding ewes—grand, useful, high-class ewes. Write your wants.

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

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

I must reduce my herds to the minimum on account of short feed and insufficient accommodations for winter, therefore will sell at prices that should be a big object to purchasers. My offering consists of tried brood sows, gilts and boars, all ages. Will sell singly or in lots to suit. The young stock is by my herd boars Prince Bismarck 1867, Seldom U. S. 18218, Duke of Weston and Corwin. Come now and get a bargain. Also, for sale thirty extra fine young Short-horn bulls, sired by Glendower 10388. None better in Kansas.

SHORT-HORNS FOR SALE.

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.

G. W. GLICK & SON, Atchison, Kansas.

COMBINATION SWINE SALE

At Girard, Kas., Wednesday, September 28, 1898.

Sixty-five Poland-Chinas, fifteen Chester Whites, five matured boars, fourteen sows, bred or with litters; the remainder young boars and gilts, close descendants of Claude, Hadley, J. H. Sanders and Longfellow, Columbian prize winners; Look Me Over and Kiever's Model, of boom price fame; King Perfection, Lall's Victor, Black U. S. and other noted hogs.

Sale will be held in comfortable building containing six thousand square feet under one roof in the city. To get full particulars, etc., write Wm. M. McDonald, Girard, Kas., for sale catalogue, now ready.

Easy terms to responsible buyers.

WILKIE BLAIR, Beulah, Kas. WM. M. McDONALD, Girard, Kas. J. W. WAMPLER, Brazilton, Kas.

COL. W. O. COLBORN, Auctioneer, Girard, Kas.

ARMOUR SALE OF HEREFORD CATTLE.

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.

K. B. ARMOUR, Kansas City, Mo.

4,500 — Registered and High-Grade — 4,500

HEREFORD CATTLE

Known as the Geo. H. Adams Herd, San Luis Valley, Colorado. The entire herd, including Registered, Pure-Bred and High-Grades, until further notice, will be offered at PRIVATE SALE,

IN LOTS TO SUIT PURCHASERS.

The herd, now aggregating about 4,500 head, consists of 450 Registered and Pure-Breds of the best and most fashionable families, whose progenitors and present representatives were selected from the best herds in this country and England. In this division there are over 100 serviceable bulls. The High-Grade division is pronounced one of the best in this country and consists of 1,650 cows, 90 per cent of which are seven-eighths pure-blood or better; 220 two-year-old heifers, 200 yearling bulls, 430 yearling heifers, 600 bull calves, 600 heifer calves and 350 off-colored individuals. THIS OFFERING will afford the cattlemen of the country an opportunity for fitting up small herds and arranging to breed their own stock bulls.

REASONS FOR SELLING AT THIS TIME: Having been actively engaged in the live stock business for twenty-nine years and always looked personally after the welfare of my live stock interests, I have concluded that age and health calls for a retirement, hence for these reasons, and these only, do I make this announcement.

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

GEO. H. ADAMS, Crestone, Saguache Co., Colo.

Superior Herd. Combination Sale of Poland-Chinas Crescent Herd.

AT HUTCHINSON, KAS.; TUESDAY, SEPT. 27, 1898.

Eighty-five Head of Up-to-date Poland-Chinas of Excellent Breeding and Individuality, Comprising a Draft of Sixty Head From Superior Herd and Twenty-five Head From Crescent Herd.

Superior herd was established in 1891, and this is a closing-out sale, and the offering was selected from more than a hundred head. It consists of three herd males, Princeton Chief 14543, Gen. Hindstretch 37247, and Hadley Faultless Corwin by Hadley Jr.; twenty-seven sows and gilts, one year and over, bred to above boars for fall farrow. Sows by Greenwood, Guy's Unfortunate, Cash Price, Longfellow Jr., Low Down Tecumseh, Lawrence C., C. J. Free Trade, Darkness Quality 2d, and Tecumseh Wilkes; thirty boars and gilts of spring farrow.

The Crescent herd draft consists of twenty-five sows and gilts, bred and open, and boars and gilts of March and April farrow. One choice yearling boar by Guy Darkness. Guy Darkness 18293 at head of herd, assisted by Best Nims 19612.

Breeders from a distance entertained free. Sale in tent at Wilson's barn. Sale to begin at 12 noon. Terms: All sums of \$15.00 or less cash, without discount; over that amount 5 per cent. off for cash, or a credit of four months on approved note with 8 per cent. interest from date. Write to either of us for catalogue.

COL. JAS. W. SPARKS, Marshall, Mo., and
COL. JAS. N. HARSHBERGER, Lawrence, Kas., } Auctioneers.

THOS. H. FOLEY, }
SAM W. HILL, } Hutchinson, Kas.

Grand Public Sale of High-class Poland-Chinas

AT LYNDON, KAS., MONDAY, SEPTEMBER 26, 1898.

Sixty head specially selected tops, consisting of bred and open sows, gilts and thirty extra selected boars, sired by Model U. S., Chief Tecumseh 2d, Hadley Jr., W. & H.'s Black U. S. and the I Knows.

Sale catalogue now ready to mail to all desiring it. Free entertainment to parties from distance at the Cottage House.

TERMS:—All sums of \$15 and under, cash, without discount; over \$15, nine months' time with interest at 8 per cent., or 5 per cent. off for cash.

COL. JAMES W. SPARKS, Auctioneer.

F. L. & C. R. OARD, Vassar, Kansas.