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

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We have a few very fine Poland-China Boars ready for service that we will sell you so cheap you cannot afford to buy a scrub. Sired by Knox All Wilkes and Highland Chief. Some fancy fall boar pigs by same sires.
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BRED FROM LARGE-BONED, BROAD-BACKED, LOW-DOWN, MATURED STOCK.

Sanders, Short Stop, Corwin, Black Bess, Black U. S. and Tecumseh Blood.

Choice Young Stock for sale.
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Mains' Herd of Poland-Chinas.

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

F. L. and C. E. OARD, Proprietors,

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

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Poland-Chinas

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Is still doing business at the old stand, where, for the past fifteen years, he has been breeding and selling a class of hogs that have been winners at the leading State fairs, and have been topping the markets in Chicago and Kansas City—the end of all hogdom. Has constantly on hand boars large enough for service and sows bred and unbred. Write for prices, which are always reasonable.

T. A. HUBBARD,

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POLAND-CHINAS and LARGE ENGLISH

BERKSHIRES. Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

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BERKSHIRES

Young boars and gilts bred in the purple for sale at prices that would astonish the natives. We keep nothing but the best. Get our prices and be convinced.
MANWARING BROS., Lawrence, Kans.

BLUE MOUND HERD

BERKSHIRE SWINE.

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

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.**

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Muscotah, Atchison, County, Kansas, Breeder of Pure-bred Poland-China Swine and Short-horn Cattle of the most desirable strains.

For Ready Sale Thirty Poland-China Bred Sows

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

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

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We breed POLAND-CHINA HOGS of the latest and best blood. Full of prize-winning blood. Largest hog-breeding farm in the West. Prices the lowest.

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The Prize-Winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District Fair, 1893; twelve firsts at Kansas State Fair, 1894; ten firsts and seven seconds at Kansas State Fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28608, World Beater and King bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

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EGGS FOR HATCHING—From high-scoring breeding yards of B. P. Rocks, W. Wyandottes and R. C. Brown Leghorns at low prices. A few good cockerels for sale. **P. C. Bowen & Son, Cherryvale, Kans.**

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PURE AND FINE. Eggs, \$1.50 for 13, or \$2 for 26.
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D. A. WISE, BREEDER OF BLACK LANGSHANS

AND PEKIN DUCKS. TOPEKA, KANSAS.

Eggs in season, \$1.50 per sitting. Residence and yards south of Highland Park.

Silver Wyandottes.

We are selling eggs from our prize-winners scored by Shellabarger & Savage, \$2 for 15; \$3.50 for 30. White P. Rock eggs, \$1 for 13.

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Partridge Cochins and White Leghorns

at Hutchinson show took sweepstakes in Asiatic and Mediterranean classes (silver cup and silver teapot); Shellabarger judge. Eggs, after May 1, \$1 per 15. Write for descriptive circular. Address, J. W. Cook or Carrie A. Cook, Hutchinson, Kans.

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FLORENCE, KANS. Houdans, \$1 per sitting of 13.
B. FIRMIN, Proprietor.

CANFIELD'S WHITE PLYMOUTH ROCKS WON

first pen, first cock, first cockerel and first hen at the Kansas State Poultry Show, 1899, besides the grand sweepstakes for best ten birds in the American class. Eggs, \$2 for 15, \$5 for 45. **M. L. Canfield, Belleville, Kans.**

GOLDEN WYANDOTTES and GOLDEN SE-

BRIGHT BANTAMS. Prize-winners at State Show, Topeka, January, 1899. Eggs, \$2 for 15; 30 for \$3.50. Eggs after June 1, \$1 for 13.

L. V. MARKS & CO., 501 Jackson, Street, Topeka, Kans.

WHITE WYANDOTTES

Have no equal as an all-purpose fowl. I have high-scoring birds and eggs from first prize-winners for sale. Prices reasonable. Address Jeff. Payne, Hutchinson, Kans.

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

ORCHARD PARK POULTRY YARDS—Barred P. Rocks exclusively. Prize-winning strain. Pronounced by the judge the finest he had ever seen. Eggs \$1.50 per 15. Cash with order.

MRS. J. R. WHITNEY, 1411 Massachusetts street, Lawrence, Kans. (Mention Kansas Farmer.)

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E. R. Lock's Barred Plymouth Rocks are still in it. Twice in succession my birds have won all of the prizes where shown. Write me for prices on stock. Eggs \$1 to \$2 per 15. Catalogue free for writing.
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BARRED PLYMOUTH ROCKS

From Prize-Winning Strains.

Eggs now for sale; sitting of 15, \$2. For further information address **J. P. JOHNSON, Junction City, Kans.**

CHOICE BREEDING COCKS and COCK-

ERELS.

Fifteen White P. Rocks, 15 Silver Wyandottes, 20 Brown Leghorns, 10 Light Brahmas, 10 S. S. Hamburgs, 10 Black Langshans, 5 Black Javas, 10 Pekin ducks. All strictly first-class. Some are scored by Hewes and others.

A. H. DUFF, Larned, Kans.

H. T. FORBES, L. C. FORBES,

...Breeder of...

THOROUGHbred BUFF COCHINS

Eggs and stock from prize-winners at Kansas State Poultry Show, January, 1899. Write for description and prices. Address **H. T. & L. C. FORBES, Topeka, Kans.**

ROSE POULTRY FARM—J. M. & C. M. Rose, Elm-

dale, Kans., breeders of Light Brahmas. Yard, 32 1/2 cockerels; females \$2 to \$4. B. P. Rocks, yard, 32 1/2 cockerels; females \$2 to \$4. W. C. B. Polish, 31 1/2 cockerel; hen \$3 and \$4. S. C. B. Leghorn, yard No. 1, 33 1/2 cockerel; first prize at Sedgwick, Cottonwood Falls '98, and Topeka '99; females \$2 1/2 to \$4. Yard No. 2, headed by cock 94 1/2 as a cockerel last year; pullets \$2 1/2 to \$4. No more stock for sale. Eggs \$1.50 per sitting of fifteen.

GEO. W. COOPER, BREEDER OF THE LORDLY

Black Langshan, 323 Lake street, Topeka, Kans. I won at our last state poultry show, January 9-14, with 107 Langshan competition, first on cock, first on cockerel, first on pen, tied first for pullet, tied second for hen, third on pullet, third on hen, and had the highest-scoring pen of chickens in show room. I have without doubt the best Langshans in the West. Eggs \$2 per sitting. Write me for prices on stock. Correspondence a pleasure. (Mention Kansas Farmer when you write.)

EGGS FOR HATCHING

Royal Blue Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, White Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Brown Leghorns, White Leghorns, Silver Spangled Hamburgs, Black Javas, White Guineas, Pearl Guineas and Pekin Ducks. Pairs, trios and breeding pens. Prices low, considering quality. Circular free.

A. H. DUFF, Larned, Kans.

EGGS FOR HATCHING.

FOURTEEN YARDS.

Buff Cochins, B. P. Rocks, W. P. Rocks, Black Langshans, White Wyandottes, Rose and Shiloh-Comb Brown Leghorns, Imperial Pekin Ducks and Mammoth Bronze Turkeys. Eggs \$2 to \$5 per sitting.

Circular giving matings and prices for 2-cent stamp. Guide to Poultry Culture and Catalogue of Poultry Supplies, 10 cents.

EXCELSIOR FARM, C. B. Tuttle, Prop., Topeka, Kansas.

PRIZE-WINNING LIGHT BRAHMA CHICKENS

...EXCLUSIVELY...

Our record for 1898-99: Won 5 out of 6 first premiums at State show in Topeka, including sweepstakes, in January, 1899. Won 6 out of 7 first premiums, including sweepstakes in Asiatic class, at Sedgwick (Kansas) show in December, 1898. Won 6 out of 6 first premiums, including sweepstakes, at Butler County show, held in Eldorado, December, 1898. Eggs \$1 to \$3 per sitting. Also breeders of Red Polled cattle. Address **CHAS. FOSTER & SON, Eldorado, Kans.**

ROCKS WHITE and

BLUE BARRED

Five Pens—Three Barred, Two White.

One pen headed by E. B. Thompson Ringlet cockerel; one by a grand Lash cockerel; one by a bird of the Conger strain. My White Rocks are from Madison Square Garden winners—large, pure white birds. Eggs, \$1 for 15, \$2 for 30, \$3 for 45, \$4 per 100. White Guinea eggs same. Write for descriptive circular and prices. Printed recipe for making and using Liquid Lice Killer, 25 cents. Address **T. E. LEFTWICH, Larned, Kans.**

Agricultural Matters.

PLANT BREEDING.

(Continued from April 6.)

PLANT VARIANTS: CLIMATE.

Most writers agree that climate may have a profound influence upon plants, and yet there is a great difference of opinion as to what that influence may be. The evolutionist who believes in Darwin's theory of the origin of species can scarcely refrain from believing that plants have been greatly modified during the past ages in order to be able to survive under the various unfavorable climatic conditions to which they have been subjected. Whether he looks upon this result as purely the work of natural selection, or as the result of a combination of natural selection with the qualities that have been impressed upon the organism by environment, he must agree that the plants which now inhabit the earth are very different from those that were here during the carboniferous epoch. Mr. Darwin was a believer in the transmission of acquired characters to offspring, and yet he did not seem to have placed a sufficient estimate upon characters that may be acquired by direct influence of climate. On page 244, Vol. II, of his "Animals and Plants Under Domestication," he says: "Moreover, it does not appear that a change of climate, whether more or less genial, is one of the most potent causes of variability; for in regard to plants Alph. DeCandolle, in his 'Geographie Botanique,' repeatedly shows that the native country of a plant, where in most cases it has been longest cultivated, is that where it has yielded the greatest number of varieties." Notwithstanding the fact that he has made the above statement, I have been able to find in this same work at least twelve citations of facts of variation attributable to climate, many of which he assigns to that cause, and later in the volume he devotes ten pages to acclimatization.

The subject of the acclimatization of plants has given rise to much discussion. The disputes that have arisen between authors as to whether acclimatization ever occurs have been largely due to a misunderstanding of what the term ought to include. I quote Bailey's definition: "Acclimatization.—The act or aid of man in inuring or habituating a species or variety to a climate at first injurious, or the state or condition of being thus inured or habituated." Acclimation differs from acclimatization only in the fact that unaided nature is the means of bringing about the former, while man directs the latter.

There are a great many ways in which plants may be made by climate to vary. Some of these variations may be temporary and some constitutional; some may be transmitted to the offspring and some may perish with the individual. I believe, with Thomas Andrew Knight, that "The influence of climate will depend less on the aggregate quantity of heat than on its distribution in different seasons of the year." It is well known that countries with continental climatic conditions usually have very diversified floras. Most of our valuable cultivated plants are believed to have originated in countries with just such climatic conditions. The small grains are believed to have originated in central Asia, maize and potatoes in the plateaus of the Andes, and the common orchard fruits are referred to western Asia.

Since plants are dependent upon their surroundings for their bodily temperature and have no independent temperature of their own, as is the case with animals, they are much more closely limited to certain temperature conditions than animals. Those persons who say that acclimatization does not occur, expect the plant to be able to survive transplantation from a country of one extreme, to another with as great an opposite extreme. This is an unreasonable demand upon the plant.

Alfred Russell Wallace, in the Encyclopaedia Britannica, proposes the correct method of procedure for the acclimatization of plants. He says: "We must transport as large number as possible of adult, healthy individuals to some intermediate station and increase them as much as possible for some years. Favorable variations of constitution will soon show themselves and these should be carefully selected to breed from, the tender and unhealthy individuals being rigidly eliminated."

"As soon as the stock has been kept a sufficient time to pass through all the ordinary extremes of climate, a number of the hardiest may be removed to the more remote station and the same process gone through, giving protection if necessary while the stock is being increased, but as soon as a large number of healthy individuals are produced, subjecting them to all the vicissitudes of climate."

Dr. Hooker proved by experiment that the same species of conifers and rhododen-

drons grown in England from seed obtained at various elevations of the Himalaya mountains manifested different degrees of hardiness corresponding to the elevation of habitat of parent. Darwin cites Naudin as having said that "The races of melons, squashes and gourds which have long been cultivated in northern Europe are comparatively more precocious and need much less heat for maturing their fruit than the varieties of the same species recently brought from tropical regions."

Every farmer knows that some varieties of corn are better adapted to his immediate neighborhood than others. It is also known by agriculturists that varieties become better adapted to a certain climate, after having been cultivated for some time under the influence of that climate. Last summer, I was informed by an intelligent farmer that the Turkey wheat grown in Kansas to-day is not very much like the Turkey introduced a decade ago. He said that the grains of the original Turkey wheat were long and pointed like rye, and very dark and dull in color. The grains of this variety grown recently in Kansas are plump and bright, and highly improved in quality over the original variety.

The next plant variant which I hope to discuss is crossing. This subject should be of special interest to plant breeders, because it comes much more completely within the control of man than do soil and climate.

GEO. L. CLOTHIER.

Cornell University, April 10, 1899.

(To be continued.)

The Economy of Cutting Corn and Feeding the Fodder.

(Continued from March 2.)

Baled corn fodder, when stored away in barns, soon imparts to the fodder an agreeable flavor that is derived from the ear remaining in the resting place prepared by nature for it, that is not obtained any other way. Loose fodder can be kept in the barn for a long period and gets better as it gets older, but the barn must have a tight roof on it, for if the fodder gets wet it will heat and consume itself, same as stable manure will, and perhaps the barn will also be destroyed. The cost and labor of handling and threshing corn fodder has stood in the way of its more general use to a great extent. Then again, when it has been shredded or threshed in large bulk out of doors, it has in many instances failed to give satisfaction, because it failed to keep good, and moldy corn stover is not very tempting, if not really injurious.

Where a farmer owns a small thrasher of his own, there are numerous advantages to be derived by doing his work all himself and at a time when all other work is stopped. One of the most important advantages is in the cheapness as compared with the expense of the regular hired thrasher, which is about as follows, on twelve acres:

Hauling fodder to thrasher	\$10.00
Thrasher bill, \$1 per acre	12.00
Labor of threshing, storing corn, stacking stover, one day, four men	5.00
Board, 10 cents per meal	3.30
One team and hand to haul corn	2.00

Total, for twelve acres \$32.90

or about \$2.75 per acre, and as the stover will average about two tons per acre, it makes the corn hay cost about \$1.37 per ton.

Many claim that seven acres is all that can be threshed in a day, and place the cost of the shredded stover at \$4 per acre, or \$2 per ton. When the farmer owns his own machine and does not have to hire any help, the cost of threshing his corn fodder is simply his own work in a time when he could be doing nothing else, and without reckoning the cost of barns, and machinery used, the corn hay simply costs the expense of shocking it, or 40 cents per ton. However, if he should hire this work all done, the expense would not exceed \$2 per acre, or \$1 per ton, which is very cheap hay. My own barn has not sufficient storage capacity as yet to enable me to do all my threshing out of the barn, and I do most of the work directly from the field, with a small threshing machine that is housed in a lean-to built up against my horse barn, and the power is furnished by a three-horse tread power, but my two largest horses furnish all the power needed. One team is put in the power, while the other team is driven to the field for fodder, and the load is driven up to a window that slides to one side, where the fodder can be unloaded right on the feed table and pushed right into the feed rolls as fast as one would usually handle it if he were to pile it up beside the wagon. My thrasher is sixteen feet long, with a swinging or swivel straw stacker thirty-six feet in length, that is set to carry the stover at right angles and up into the second story of the horse barn, where it takes care of itself until a load of corn fodder is all run through, when it is shoveled away from the end of the carrier, but the mow will hold twenty tons or more, or enough to run me two weeks when entirely full. The

throat of the machine is about twelve inches wide and the feed rolls crush the stalks and will feed about six to ten at a time into the cutting cylinder with as much speed as an ordinary thrasher will, and the revolving knives cut the ears and stalks up into any lengths desired, from one-fourth inch to four inches long, then the cut fodder passes through or between a fourteen-inch cylinder and its concave, that runs with great speed, tearing the cut pieces up and usually taking the shive off from the pith, and where this is done the pith is eaten by the stock. The thrasher cylinder throws the torn-up fodder out onto a set of wire shakers that are about two feet long and three feet wide, when the shelled corn drops down and the fodder travels on over the vibrating screens into the straw-carrier and up into the second story of the stable. The shelled corn passes through two three-fourth-inch vibrating screens that take out all pieces of heavy stalks, then the corn passes through a powerful blast of air from a rapidly revolving fan three feet long, which entirely drives out any light dirt into the straw stacker, then another quick-moving screen, with holes about three-eighths of an inch in diameter, takes out all cut kernels, particles of dirt that are always on the bottom of the stalk, and the hail or pieces of ice that may be in the snow, if snow is among the fodder; then the cleaned shelled corn is elevated up eight feet, carried over the machine into a large bin in the stable six feet away, or turned and run the other way into a wagon standing at the side of the shed, where it can be hauled away and stored, fed, or sold.

Threshed fodder, or stover, as it is called, should be fed to horses in tight mangers; cattle can be fed in the yard in troughs 18 by 3 by 3 feet; sheep can be fed in troughs 2 feet wide, 1 foot high and 18 feet long, with a raised partition to keep them from jumping into it. These troughs can be easily tipped over and any refuse turned out, or this refuse can be saved and ground up in a mill, together with enough shelled corn to make it feed down into the grinders, when the entire corn plant is utilized. I have shown that the average waste of corn fodder at the experiment stations is about 20 per cent, but as they feed under much more favorable conditions than a common farmer does, it is probable that a farmer only gets about 50 per cent of the fodder when fed as it commonly is fed.

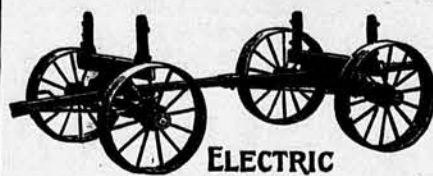
After carefully estimating, I believe I succeed in using all but 25 per cent, and I have just completed arrangements whereby I can grind and use the entire corn plant without one-tenth of 1 per cent loss, practically no loss at all that can be observed. As threshed, and without grinding the refuse, my loss of 25 per cent is about 5 per cent more than the average loss of silage, and everyone thinks that if he "only had a silo he would be all right, as silage will be eaten up clean," when, as a matter of fact, there is 6 per cent less loss than I suffer, and I can entirely consume the whole plant without a particle of waste by grinding the cut stover with the shelled corn and feeding the combined product as meal.

If this is not done, the 25 per cent of refuse can be used as bedding and the horses and cows will be bedded down to about three inches in depth, as only a very little of the bedding is spoiled by use, as the corn pith is such a wonderful absorbent. You know that compressed corn pith is used in our modern battleships to prevent them leaking when perforated by shot, on account of the wonderful power of absorption pressed corn pith possesses, yet as a compressed sponge cannot absorb as much moisture as a loose one can, by the same rule loose corn pith is a better absorbent than the compressed article. I never dreamed that I would be able to bed my stock so well, as it seems as if only a man of great wealth could afford to thus lavish the bedding under his stock. As soon as the bedding is soiled, it is ready to haul out as manure and used at once, and one gets ahead just a year in the use of his manure and saves the enormous loss of twelve months decaying in the yard, as corn fodder fed whole will take a year to decay so it can be handled easily as manure, and is sure to be alive with grubs, worms that will work great injury to the next crop, if not entirely destroy it.

Perhaps many of you have read in the Eastern papers about cement floors in horse stables, in order to save the liquid manure, as this liquid manure is very valuable, yet you never thought you would be able to have one in your own stable, but would like to have. Now, with the threshed corn stover refuse three inches deep under your horses and cows, there is no use for cement floors and their objections, as a plank floor is much better if littered with cornstalk pomace than the best cement floor on earth. I would not have one at any price, and I consider any writer who advocates one as behind the times. Why don't these same writers util-

Best.

If you want the best low down wagon you should buy the Electric Handy Wagon. It is the best because it is made of the best material; the best broad tired Electric wheels; best seasoned white hickory axles; all other wood parts of the best seasoned white oak. The front and rear hounds are



ELECTRIC

made from the best angle steel, which is neater, stronger and in every way better than wood. Well painted in red and varnished. Extra length of reach and extra long standards supplied without additional cost when requested. This wagon is guaranteed to carry 4,000 pounds anywhere. Write the Electric Wheel Co., Box 46, Quincy, Illinois, for their new catalogue which fully describes this wagon, their famous Electric Wheels and Electric Feed Cookers.

ize the cornstalk for bedding and prove that they are progressive and in advance in agriculture? The manure saved in this way and applied to the tilled land once in four years, or one-fourth each year, is worth much more to the land than ten growths of cornstalks would be if plowed under after pasturing them in the field.

I see no reason why any farmer who cuts twenty acres of wild hay should not own and operate a corn thrasher, as I have described. On the twenty acres he would average only about one ton per acre, and if he hired it put up it would cost him \$1.25 per ton, or per acre, and if the hay cut more than a ton per acre, the cost per acre would be increased. Now, I have shown that corn can be put in the shock for 80 cents per acre, and a good average acre of corn will yield two tons of fodder per acre that is far superior to prairie hay, and twenty acres would produce 800 bushels of corn, worth \$200. This sum would pay two-thirds of the cost of a complete outfit, which is only \$300, so I see no reason why any farmer who puts up twenty acres of wild hay should not take a step forward and be in advance of those who write about cement floors.

J. CLARENCE NORTON.

Morantown, Kans.

(To be continued.)

How to Grow and Feed Sorghum and Kaffir Corn.

Paper by J. B. Harmon, read at Farmers' Institute, Valley Falls, Kans., December 2, 1898.

The term "sorghum" is used to include a large genera of plants, species of which are native in Asia, Africa and America.

The sorghums are divided, more or less distinctly, into two classes—the saccharine sorghums, or those that have sufficient sugar in them to pay to manufacture into molasses and sugar, and the non-saccharine sorghums, those that are poor in sugar and are used principally for their seed.

The ground should be plowed and thoroughly harrowed and leveled, so the harvesting machinery can be run low and avoid the high stubs that bother so much in raking when the crop is handled in that manner.

Before planting, one should first decide whether the crop is to be grown especially for seed, forage, or to get the most of both. If forage alone is wanted, it is best to drill from one to two bushels of cane seed per acre, according to the fertility of the soil. A great many use Early Amber, as this variety, if sown thick, does not grow too tall to be bound with an ordinary self-binder. The Folger is probably the sweetest, while the Collier is the rankest and produces the greatest yield.

If seed is the principal object, Kaffir corn should be planted. The red and white varieties have proven the best. Plant with a drill planter in rows three and one-half feet apart and six inches apart in row. Cultivate same as corn.

When both fodder and seed are desired, go over the field twice, planting between rows the second time, or stop up enough holes in a grain drill to make the rows the right distance apart. This may be cultivated with one horse and shovel plow. But I would not recommend trying to get both seed and fodder. Better plant half of the ground in Kaffir and grow for seed, and drill the other part in Kaffir's sweeter cousin—cane—as its yield is far greater and it is relished better by the stock.

When the seed matures Kaffir should be cut with a corn binder, sled cutter, or any other method, and put in large shocks, allowed to cure thoroughly, and then threshed.

After running through a separator with the concaves removed, the fodder makes excellent feed for cattle. Where Kaffir is grown on an extensive scale it is left in the field until it is well cured and then topped and put in cribs as other corn.

In all plants the nutrition is first stored in the leaves and then transferred to other

parts of the plant. This fact accounts for the high nutritive value of the leaves and blades. After a plant ripens a large percent of the soluble nutrients are soon leached out by the dews and rains unless it is stored or protected in some way.

Kaffir stays green until the seed matures, thereby enabling one to save both seed and fodder. While with corn, you must either cut it up before the ear is mature and necessarily diminish the yield, or lose a good share of the blades while the ear is ripening.

The average yield of Kaffir corn on the Agricultural College farm, at Manhattan, for the last nine years has been 45.9 bushels per acre, for corn 34.2 bushels per acre. One great advantage Kaffir corn has over corn, and which doubtless accounts for the better average yield, is its power to send out new flowering stalks if the first are not set with grain. If caught by a drought it simply remains dormant until the rain comes, and then it begins again where it left off. Not so, however, with corn. A few unfavorable days when it is flowering and fertilizing will materially diminish the crop, and no amount of favorable weather afterwards will redeem it.

Sorghum should not be cut until it is well matured and the sugar has developed in the canes. If too tall to be bound with a self-binder, remove the binding apparatus and let the reel fall it back on the table, and, when full as it will hold, stop and pull it off by hand. Have men stationed around the field to shock it up and tie the shocks. This method is quite speedy and is vastly better than the old way of raking and shocking with a pitchfork. Sorghum of the ranker varieties yield sometimes as high as six to eight tons to the acre, and stock of all kinds eat it up, stalks, blades, and all.

One thing must be scrupulously guarded against, and that is letting stock eat second-growth sorghum or Kaffir after it has been frosted. It seems to contain some deadly poison that is not well understood. A teaspoonful of aconite, given in a pint of warm water, is said to save them if given in time. No evil results have been reported from the second growth after it has been cured as hay.

Sorghum and Kaffir, like so many of our common feed-stuffs, are too poor in protein to constitute the entire food, but should be fed along with some food which contains a higher per cent of protein, as alfalfa, bran, or oil meal, to balance up the ration.

In a pig-feeding experiment at the college farm, at Manhattan, last winter, it was found that 83.7 bushels of corn was equal to 100 bushels of Kaffir corn. The pigs gained 10.7 pounds on one bushel of Kaffir, while they gained 12.3 pounds on the same amount of corn. Owing to the better average crop of Kaffir for the past nine years it would have produced 454 pounds of pork per acre, while corn would have produced but 402 pounds per acre. On account of the small, hard seeds of Kaffir and sorghum, they will not be so thoroughly masticated and digested unless they are ground extremely fine. Rating Kaffir at 25 cents per bushel, it proved to be worth 3¼ cents more per bushel to grind it.

Selection of Seed Corn by Cross-Breeding.

Editor Kansas Farmer:—It will pay the farmers of Kansas to test the value of the following method of selecting seed corn: Two or three rows are planted in the middle of the field, using seed of a different variety from that used in the remainder of the field. The tassels of the corn in these rows are pulled out before they develop pollen, so that the ears will be fertilized with pollen from the remainder of the field. Seed from these rows is selected for next year's planting, and it is claimed that the yield has been increased by at least ten bushels per acre. Colonel Dudley, of Topeka, has done a great deal in this line, and reports excellent results. If the yield of the Kansas corn crop could be increased ten bushels per acre it would mean several million dollars added to the value of the crop, and obtained by only a very little increase of labor expended. About fifteen farmers in the vicinity of Manhattan have agreed to co-operate with the Kansas Experiment Station in testing the method this year; but why should not five hundred or a thousand farmers all over Kansas join in the work? It will require very little labor. Any farmer can find a different variety of corn from his own by going three miles, or less, away from his home; and the work of pulling out the tassels will be little more than the work necessary to cut the weeds out of the same number of rows. Farmers, give this matter your careful attention, and then plan to take up the work. The members of the station council will gladly correspond with you in regard to any further information you may need.

R. W. CLOTHIER.

Kansas State Agricultural College.

The Farmers' Institute.

The institute is one of the most valuable means the Agricultural College has of reaching the farmers directly, giving the results of experimental research in such shape that they can be discussed and questioned from every side. The college will furnish one or two men and print the programs free of charge for any community that will work up an institute. Some one in the neighborhood must work up the program and make all general arrangements and arouse an interest. The men who come from the college will expect to answer all questions, from feeding the baby to fixing the sewing machine, repairing the wheelbarrow, planting flower seeds, or gathering the crops.

The most interesting and successful institutes that have been held the past year have been dairy institutes. To these only experts in dairying go from the college, and every topic pertaining to dairy interests is taken up and discussed, such as the feeding of the dairy animals so as to obtain greatest milk yield at minimum cost; the care of milk in winter and summer; butter-making on the farm; handling of milk for the creamery; value of feed-stuffs and manner of handling calves; raising them on skim-milk; feeding skim-milk to pigs and fattening hogs; the care of milk utensils; bacteria and their relation to dairying; sanitary milk production; the Babcock test and its influence on dairying; the effects of shelter and kindness on milk cows; and numberless such questions are discussed from the standpoint of men who have had practical experience in these things and have kept records of results, knowing whereof they speak. Dairying is coming to be recognized as one of the greatest industries in Kansas, and any man who expects to make the most out of it must post himself on all sides of the question; but the one thing of most importance to the farmer is the care and feed of his cow. I would like to see the farmers of Woodson County go to work this coming summer and fall, and work up at least three institutes, notify the college of the kind and about the time when wanted, and the college will furnish one or two good men for each occasion. It is worth the effort. A number of you are interested in the Yates Center Creamery and are hoping to see it succeed. Why not take this chance to gather new light on the subject? It will cost you nothing but a little effort, and may be of untold benefit to your creamery industry.—Ed. H. Webster, in Yates Center News.

The Stock Interest.

THOROUGH-BRED STOCK SALES.

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

APRIL 27—G. W. Glick & Son, Powell Bros., and John McCoy, combination sale of Shorthorns, stock yards sale pavilion, Kansas City.

Sheep in Allen County, Kansas.

Editor Kansas Farmer:—As you are receiving reports of the sheep industry from several places, I will report from the great grass country. As the Wilson bill went into business most of the sheep men went out of business. Some, however, who had the mutton breeds, continued to watch and wait for better times, and some began to cross their fine-wool sheep with the mutton breeds. Two of my neighbors who had the Merino sheep asked me what to do, as they wanted to cross their sheep with the mutton breeds, in view of the source of profit, and wanted to finally terminate in the Shropshire sheep. I told them to cross first with the Cotswold and then with the Shropshire. They began by buying a large Cotswold ram, but they got impatient and began using a Shropshire ram on their Merino and Cotswold grade ewes. Last July when lambs were in demand I sold my Cotswold wether lambs at home for \$4.75 per 100 pounds, and they averaged 72½ pounds at 5 months old. Their lambs were not large enough to justify selling them at that time. However, they sold at \$3 per 100 pounds two months later, their lambs averaging 80 pounds. Now they are determined to use the Oxford ram of large size as a cross to secure the size at as early an age as possible.

While I continue breeding the pure Cotswold and grades, I have, in addition, recently purchased some registered Oxford ewes and a ram. I hope to better my profits by so doing. I shall breed some of each pure and try the cross, to see which will make the most profit by selling the lambs before weaning them, as it will not pay me to wean them and fat again on grain, and I can make my lambs weigh an average of 100 pounds at weaning time without grain, if the ewes do not have too many twins. I have a ram shipped from Illinois that is a remarkable getter of twins and

occasionally triplets. This multiplies the flock rapidly, and, by using a little grain, not so many ewes are required to build up the flock. We have had a few ram lambs that weighed 135 pounds at 6 months old. Our wool crop last year averaged 11 pounds per fleece, and sold in St. Louis at one-half cent advance above quotation for Kansas wool, which at that time was 17½ cents. The demand for sheep is so great in this locality that no ewes are for sale.

Iola, Kans.

A SUBSCRIBER.

Improved Conditions in the Horse Market.

Editor Kansas Farmer:—Arrivals of horses at all the leading markets in the United States are very much smaller than they were at this time last year. In Chicago alone the receipts for the first three months of the year 1899 are less by 4,477 than the receipts for the same period of 1898. The shortage, too, has been experienced right in the very teeth of the best demand and the highest prices that have prevailed since 1892. This proves beyond doubt that the horses are not in the breeding districts. If they were to be had the shippers would have obtained them and sent them in, for the demand has been considerably greater than the supply in most grades. In fact, the horse market is really in better shape now than it ever has been, and in proof of this it may be mentioned that during the past seven days more horses actually changed hands at prices of \$100 and upwards than ever changed hands at such prices in any previous week since the horse market was established in the Western metropolis. This speaks far louder for the healthy condition of the trade than anything else that could possibly be said.

The market is better now than it ever was, and for all good sorts more money is paid than was ever paid, both at auction and at private sale. Of course, we are not speaking of trotting horses. The fortunate thing about this is, moreover, that the best is still not yet. We have not reached the point where the supply is as seriously impaired as it will be in twelve and twenty-four months, and the man who is fortunate enough to have some good horses to sell in 1900 and 1901 is going to get prices for them such as he never dreamed of. Last week the inquiry and the prices paid were the best of this good year in the Chicago horse market—indeed, better than they ever were in the palmiest days of the horse market in this country. From all over the country the cry is the same. The horses are not in the breeding districts where they once were to be found, and instead of having them to sell, the farmers are actually buying again in order that

"Winter Finds Out What Summer Lays By."

Be it spring, summer, autumn or winter, someone in the family is "under the weather" from trouble originating in impure blood or irritated condition of the system.

All these, of whatever name, can be cured by the great blood purifier, Hood's Sarsaparilla. It never disappoints.

Abscesses—"I am past 54 and my good health is due to Hood's Sarsaparilla and Hood's Pills, which purified my blood and healed the ugly abscesses that troubled me." Mrs. BRITTON C. ESTELL, Southard, N.J.

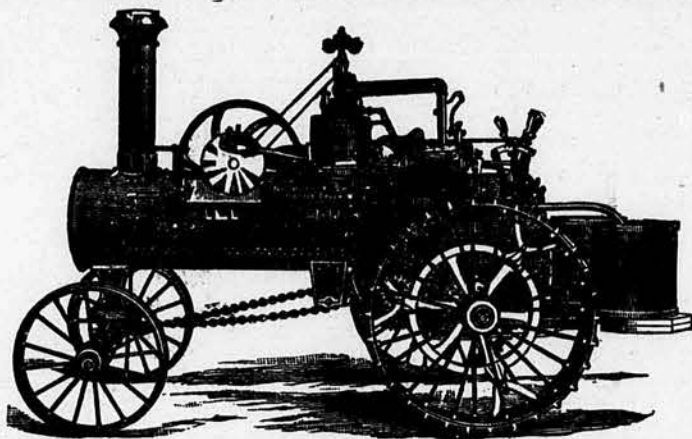
Dyspepsia—"My husband doctored a long time for dyspepsia with only temporary relief. The first bottle of Hood's Sarsaparilla helped and the second cured him. It cured my sick headaches." Mrs. MARY A. CLARK, Wilmington, Vt.

Hood's Sarsaparilla
Never Disappoints

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

they may have power to do their spring work. A big shipper who hitherto has done a large business in drafters related that of late he has made a trip over twelve of the best counties of Iowa without getting what he wanted. During the past week 100 more horses were shipped direct to Europe from Chicago than were shipped during the same week of 1898, the figures being 575 for the week ending April 8, 1899, and 475 for the week ending April 7, 1898. A year ago there was a large speculative export trade, but now dealers are confining their operations strictly to orders in hand. As more horses are now going out, proof is presented that the surplus abroad has been consumed, and that orders are again urgent. Indeed, the export demand could hardly be in better shape than it is right at present. These figures are supplied from official sources and can not be doubted. Prices are bound to go much higher and the probabilities are that by this time next year horses will be selling all the way from 30 to 50 per cent better than they are now. Of course, some slight reaction is to be expected when the spring trade is over but it will not amount to much at its worst.

Chicago, Ill., April 10, 1899.




The Nichols-Shepard TRACTION ENGINE

Nothing that helps to make a perfect road and thresher engine has been left out or slighted in the construction of the Nichols-Shepard Traction Engine. Everything has been done that science, skill and experience could suggest to add to its effectiveness, power, durability and safety from explosion and fire. The boiler is of the very best selected steel, thoroughly well made and provided with every approved safety appliance. The fire-box is surrounded by water—top, bottom and sides. The draft-damper is so made that sparks and ashes can't drop out, and the smoke-stack is fitted with patent bonnet and spark-arrester. Every part is strong, durable and is thoroughly tested.

Detailed descriptions and many illustrations of the Nichols-Shepard Traction Engine and of the Nichols-Shepard Separator and other threshing machinery are contained in large catalog—mailed free.

NICHOLS & SHEPARD CO., Battle Creek, Mich.
Branch House at KANSAS CITY, MISSOURI,
with full stock of machines and extras.



LUMBAGO
IS EASY TO
GET
AND JUST AS EASY TO
CURE
IF YOU USE
St. Jacobs Oil

Shorthorn Breeders' Opportunity.

If the Shorthorn breeding fraternity is alive to its present interests, or as progressive as to its future welfare as the Hereford breeders are, there will be a regular rally of Shorthorn breeders present on the occasion of the joint sale of Shorthorn cattle, to be held at Kansas City, Mo., on Thursday, April 27, 1899, by G. W. Glick & Son, Atchison, Kans.; Powell Bros., Lees Summit, Mo., and John McCoy, Sabetha, Kans.

The special significance of a large gathering of the Shorthorn clans at this particular sale is apparent for the reason that the combination of consignments come from three representative Shorthorn herds and among the oldest-established ones in the West. Not one of the parties making this sale has had less than twenty years' active and continuous experience in breeding Shorthorns, standing faithfully by this noble beef breed through all its vicissitudes for a quarter of a century. That they have succeeded in breeding typical animals of the most desirable strains is evidenced by the fact that breeders who visit their herds have always paid them the prevailing top prices at private sale, and many good herds throughout the West to-day have their female foundations or herds headed by stock from the different establishments represented in this sale.

This joint offering comprises but a limited number of mature cows, several having calves at foot. Most of the 44 females are heifers, bred or ready for service. The combined bull offering of 24 head is probably the best in its entirety ever offered at a Kansas City sale of Shorthorn cattle, in fact, for good breeding and individual quality, a better or more serviceable lot of Shorthorns never has, in the opinion of the writer, been offered at public sale in Kansas City. A representative of this paper has visited each of the herds represented at this sale and therefore has no hesitation in urging the presence of Shorthorn breeders generally, with the belief that they will receive as much benefit as their fellow breeders who contribute the offering.

The catalogue tells the whole story of the breeding of the animals offered so well that there is little to add except the foregoing about the joint offering and a very brief reference to each consignor. Ex-Governor Glick, of Atchison, is one of the oldest breeders in Kansas and has one of the best Bates herds in the country. His draft consists of an exceptionally bred Bates herd bull, Waterloo Duke of Atchison 127452, and 23 Bates and Bates-topped females, of the Duchess, Princess, Sanspareil, Belina, Filberts, Lady Sale 2d, Kirklevington, and Lady Jane families, the latter being of the famous milking strain. Many of these females are in calf to the Great Duke bull, the 53d Duke of Airdrie, the head of Shannon Hill herd.

The draft from the herd of John McCoy, of Sabetha, Kans., consists of an exceptional lot of 7 serviceable bulls, including the straight-bred Cruickshank herd bull, Imperial Knight 119669. This bull has proven a grand sire, as will be seen by his produce offered. He is as active as a yearling, a very easy keeper, and a sure sire, having made more money for Mr. McCoy than any bull he ever owned. Fifteen females are included, all heifers except 2 fine and serviceable cows. Among the young bulls is Field Marshall 133389, sired by Imperial Knight and out of Vernie, a great cow, having produced 4 other bulls, all of which are now herd headers. The other bulls that are sure to attract special attention are Romeo 135390, Thistle Top 135392, Free Trade 135385, Hustler 135386, and Baron Victor 135383, all sired by Imperial Knight. The females are Scotch-topped and choicely bred, a very serviceable lot. Among the dams of the offering are several that are extra milkers. Mr. McCoy's offering is quite creditable, as might be expected after twenty years' successful breeding on one farm.

The draft from Powell Bros., Lees Summit, Mo., consists of 6 females of Bates and Scotch-topped breeding, and 21 bulls ready for service and not a bad one in the lot. This firm is the "Abe Renick of the West," and one of the old reliable Shorthorn breeding firms in Missouri. All of the

bulls except 2 are of their own breeding, sired by their great herd bull, Baron Champion 122702, by Valley Champion out of Kate Washington 12th, tracing to imported Young Phyllis. Among so many good bulls it is hard to select, but breeders looking for herd bulls should note closely catalogue No. 7, 33d Duke of Cedarview; No. 16, 31st Duke of Cedarview; and No. 34, Duke of Cedarview.

Messrs. Powell and their associates in this sale are simply offering to Shorthorn buyers some of the very best specimens of their own breeding, and as such should have a liberal patronage.

Gossip About Stock.

Walter Roswurm, breeder of Poland-Chinas, Council Grove, Kans., writes that he is much pleased with his advertising in the Kansas Farmer, and that his herd boar, Hadley Model T. 21927, is proving quite satisfactory, and the herd generally is doing well.

Sam W. Hill, owner of the Crescent Herd of Poland-Chinas, Hutchinson, Kans., writes: "My hogs are doing splendidly. My herd boar, Darkness, is proving himself a good breeder. Litters sired by him average nine to the litter. I have fifty pigs by Guy Darkness, and forty by Best Nims, and more to follow. Although my pigs were farrowed during February and March, when the weather was cold and stormy, yet I have had very good success in saving them."

The attention of the beef cattle breeders is again called to the public sale of registered Hereford cattle that will take place at Belton, thirty miles south of Kansas City, Mo. The offering will consist of forty-two bulls and sixty-three heifers. The owners, Messrs. Scott & March, have made provision for a special train via the Memphis Route, which will leave the Kansas City Union depot at 8 a. m., reaching Belton at 9:20. Train will leave Belton on return at 7 o'clock p. m., and reach Kansas City at 8:15 p. m. This is the latest public sale of registered Herefords announced to take place in the West at this time. Individually and collectively it is the best offering yet made by Scott & March. Keep in mind the date—Monday, April 24, 1899.

There is quite a wide range in the prices brought by drafters in the Chicago market, much depending on the size and quality of the offerings. They must be big and they must be shapely to sell to the best advantage, and they must be very fat. Recently G. W. George, Monticello, Iowa, had in a load of eighteen and received for them an average of \$152 per head. M. Newgass & Son sent in a draft of twenty-three from their feeding depot near Wayne, Ill., and received an average of rather over \$220 per head. This last lot ranged in price from \$165 to \$325 and in weight from 1,600 pounds to 2,000 pounds. A. L. Ramp, New York and Buffalo, took the best two at \$325 and \$300 respectively. The horses were grade Shires and Percherons and were the best load placed in the auctions for some time. They were specially fitted for sale and very fat.

Owing to the lateness of this spring almost everywhere in the great agricultural belt of the United States, many farmers find that they will be forced to buy horses so that they may be able to rush through their spring work and get to work planting corn. Those who find they must buy will do much better to buy pure-bred registered mares than to buy common or grade stock. The estate of M. W. Dunham, Wayne, Ill., has a collection of pure-bred recorded Percheron mares that are young, sound, and attractive in every way, from which intending purchasers may make their selections. These mares are in splendid shape and those who prefer older and tried brood mares can also be accommodated. On this rising horse market, the purchase of Percheron mares at the prices asked ought to be as good an investment as a farmer can make, even if he never put a harness on them; but when he can make them earn their keep, he is bound to make a very good thing out of such a purchase. The selection is large and the prices right.

Veterinarians Know Its Value.

Pomona, Cal., June 7, '97.
The Lawrence-Williams Co., Cleveland, O.: Since I have practiced my profession (veterinary surgeon) in this place, I have had occasion to prescribe your "Gombault's Caustic Balsam," contrary to my usual method of practice, which is to avoid the use or recommendation of any proprietary medicine, but experience has shown me its value. When I came here in '93 the remedy was unknown. I think if I can make some arrangement with you for an exclusive agency for this community, I can push the sale of the same in a way that will be highly satisfactory to you and profitable to myself. If you will come to some understanding with me please advise me of the terms you are willing to give.

WALTER P. KELTY, V. S.

Kansas Hard Wheat Flour in Favor.

After a five months' trip abroad Mr. C. F. Hall, a stockholder of the Modern Miller, a valuable miller's journal, has returned to Kansas City. He visited important cities of Great Britain and western Europe and thoroughly investigated the condition of the flour and grain export trade from this country. The principal object of Mr. Hall's trip was to learn about the prospects of flour trade abroad, especially for winter wheat flour. He sees great possibilities for Kansas and the Southwest to build up an immense export business in grain.

"The spring wheat flours of Minnesota," said Mr. Hall, "have the call, especially in the London market, where very little of our soft winter wheat flour is sold. Ireland and Scotland are markets for soft winter wheat flour, but in London I found Kansas hard wheat flours steadily increasing in favor, and if Kansas can continue to produce fair crops of good milling wheat, and millers look carefully after the trade, they will be able to gain a lasting trade and prestige for their flours in that market."

"It is well known that Minneapolis millers have in past years been heavy purchasers of Kansas hard wheat flour, and through their hands it has reached Europe as a Minnesota product."

"Some of the largest concerns in London have recently turned their attention to the Kansas hard wheat flour and are now seeking connections with leading mills grinding Kansas hard wheat. They must have only the purest grades of hard wheat flour in order to handle them successfully, as the bakers control the trade of London and are very particular. No mixtures will go, and it behooves the millers of Kansas to adhere strictly to the pure stuff in looking for this foreign business."

"The only way to build up and maintain a steadily profitable trade abroad is to follow the flour shipments to the seaboard and see that they are handled with promptness. If this is done a much larger trade can be secured, and that should be sufficient object to cause millers to inaugurate a reform in this matter. It is a heart-breaking matter for importers to be forced to wait three or four months for the receipt of cargoes that should reach them in six weeks."

Mr. Hall said that the ships taken off during the war with Spain are again to be secured and grain export shipments can be handled without delay.

Mr. Hall says that Holland is a good market for lower grades of winter wheat flour and feed-stuffs. In Germany the protective tariff duty practically bars American flour, but feed-stuffs are practically free and are in great demand. Since the German army began to use corn bread the common people are using it, and the market for corn is improving. Every importer in Germany wants corn and lots of it, for it is used extensively for stock feeding.

In Belgium there is some talk of an abrogation of the protective tariff on flour imports if the party now in power can be ousted at the next election.

The wheat crop in Belgium, France and Germany is reported to be in excellent condition, with good prospects of an average yield.

Need of a Wheat Lister.

Editor Kansas Farmer:—Now that wheat is so far advanced that we can tell which is alive, I wish to call the attention of my brother farmers to the fact that where press-wheels have been used, other things taken into consideration, wheat lives better than where they were not used. Even wheat sown with a drill without press-wheels shows a perceptible difference in the rows where the drill wheel has been running over the ground. In such a field we will see, if drilled with an eight-hoe drill, every seventh and eighth row considerably greener than the rest. One of these rows the wheel passed over after the grain was sown, and that is much greener than the other, which was passed over before the grain had been sown, although the latter is much greener than the rest of the field. With the exception of these two rows and in the hollow places, where some animal has been tramping or where from some reason a hoe has made the furrow for the row a little deeper, there may not be a green spot in the field, and in this part of Kansas there are many such fields. If you go across a wheat field now you will be sure to find wheat perfectly uninjured in a hollow two inches deep, and the winter just past has been severe. This proves that winter-killing can be avoided if listed east and west in furrows of that depth. But the proper machine for doing the work is not made.

I suggested in a former article on this subject, which appeared in Kansas Farmer of January 12, how drills should be made in order to do the work, and I believe it would be just as easy for the manufacturers to make a drill for doing that work as anything else, provided they know just what we want. The disk drills seem to be



Many people burn the candle of life at both ends. Some men who never go into vicious dissipation use up their energies just as much by overwork or late hours; and nearly all

women are compelled by circumstances to use up their vital powers beyond all reason: It may be in housework; or social demands; or the bearing and rearing of children: At any rate the candle of life is too rapidly consumed.

Some people need to have their natural vigor constantly reinforced in the same proportion that it is used up. They need the fortifying help of Dr. Pierce's Golden Medical Discovery. It is a powerful alternative and invigorant of the digestive functions and liver; it cleanses the blood, and makes fresh blood and healthy flesh. Nervous, debilitated women should take it in conjunction with Dr. Pierce's Favorite Prescription which is specially designed for female weakness and nervous troubles.

Mrs. Sallie Kauffman, of Virgil City, Cedar Co., Mo., writes: "I had suffered from displacement of internal organs and female weakness for one year. Had a bearing down sensation and very disagreeable feeling after my second child was born; I could be on my feet only a few minutes until he was six weeks old, then I commenced taking Dr. Pierce's Golden Medical Discovery and 'Favorite Prescription.' I took seven bottles in all. After taking the first bottle I felt much better. I think I am entirely cured of all my troubles. I can do all my work and am on my feet all day. I am in much better health now than I have been in four years; am fleshy and gaining strength very fast."

By writing to Dr. Pierce who is chief consulting physician of the Invalids' Hotel and Surgical Institute, of Buffalo, N. Y., careful professional advice will be obtained free of cost and specially adapted to the individual case. Dr. Pierce's great 1000-page Medical Adviser will be sent free for 21 cents; the cost of postage.

fashionable now, and it seems to me the disks have to be made one-half larger and be put one-half farther apart, or twelve inches instead of eight. They would scour as well then as they do now, and using eight disks would make it cover one-half more ground, but they will run heavier on account of running deeper. They ought not to be made heavier than four horses can pull with ease, so if eight are too many let us have less, but by all means let us have the implement—let us have the wheat lister.

The only argument against listing wheat that I have ever heard is that ground will drift and cover the wheat plant. It is true, ground does drift badly sometimes, but wheat has winter-killed badly many a year, but never was it a total failure—at least I have not found it so. There were always some hollow places where it lived, and those places, whether drifted full or not, furnished the plants that made the wheat crop for that year. Let us watch the drifting this year.

S. O. THOMPSON.

McPherson, Kans.

A MONSTER MEETING

Of the Modern Woodmen of America, in the New Convention Hall, Kansas City.

The Head Camp Meeting of the Modern Woodmen of America, during the week beginning June 6, at Kansas City, Mo., promises to be one of the largest attended meetings ever held in the West. The Kansas City committee on arrangements have secured the new Convention Hall with a capacity of twenty thousand people for its sessions. One hundred thousand visitors are expected. Thirty-five bands and seventy-five Forester teams (uniform rank) with fully fifteen thousand marching men will be seen in line Thursday morning, June 8, in the great parade. Band and Forester team contests will extend through the week. The prizes are the largest ever offered. For Forester teams: First prize, \$500; second prize, \$200; third prize, \$100; fourth prize, \$75; fifth, \$50. Local Kansas City teams are excluded. Band prizes: First prize, \$150; second prize, \$100; third prize, \$50. All delegation bands admitted. Special railroad rates to this meeting.

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WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending April 17, 1899, prepared by T. B. Jennings, Section Director:

GENERAL CONDITIONS.

A warm, drying week, the average temperature for the State being 60°. A few light showers occurred over the State, except in the extreme southeastern counties, the rainfall in Chautauqua, Montgomery, Labette and Cherokee ranging from one to over three inches. The weather has generally been fine for farm work, and the ground is in good condition.

RESULTS.

EASTERN DIVISION.

Corn-planting is progressing in southern and beginning in the central counties. Oats are coming up in southern counties. Plowing, oats-sowing, and potato-planting are becoming general. Wheat has improved and promises about half of a crop; wheat sown early or in cornstalk fields is in much better condition than that sown late or on plowed ground. Pastures are slowly turning green. Apples, pears, cherries and plums give good promise; peaches a fair promise south, none north.

Allen county.—A fine week for farm work; much flax sown.

Anderson.—Soil too wet first of week, in fair condition the last; preliminary work, mostly, being done; wheat in the Pottawatomie bottoms is very promising.

Atchison.—Some wheat winter-killed, proportion not determined; clover badly damaged; a small acreage of oats being sown.

Bourbon.—Plowing well advanced, for this season; a small crop of oats will be sown; grass growing rapidly; one-third of the clover killed by the hard winter.

Chase.—Favorable week for wheat, alfalfa and oats; corn-planting begun; potato-planting in progress; apple trees leafing.

Chautauqua.—A fine week; wheat and oats improving, corn- and potato-planting progressing; apricots, plums and some peaches in bloom.

Cherokee.—Wheat improving slightly; oats coming up well; some corn planted; apples, pears, plums and cherries promise well; blackberries winter-killed.

Coffey.—A fine week for farm work; plowing progressing; some corn planted

Woodson.—Much plowing done; some corn planted.

Brown.—Oats being sown; fall wheat spotted, all late-sown winter-killed, early-sown in favored fields a fair stand; grass starting well; old clover badly winter-killed.

MIDDLE DIVISION.

The wheat has improved and now promises about two-thirds of a stand; some has been, and some will be plowed up for spring crops. Corn-planting is in progress in the south, beginning in the central counties. Potato-planting is nearly finished. Oats and barley are generally sown, and in the south are coming up. Peaches are in fair condition in the south, though generally killed in the north; other fruit trees are uninjured.

Barber.—Corn-planting in progress; general condition of wheat unchanged; rye doing well; oats coming up; range grass growing slowly; condition of fruit favorable, except blackberries; nectarines and some plums in bloom; grapes backward.

Butler.—Much plowing done; corn being planted; oats are up, a good stand, acreage small; grass starting, pastures late; apricots in bloom.

Cloud.—Oats-sowing in progress; corn-planting will begin by the 18th; conditions not favorable for wheat, much of it was killed, the rest has grown well, but rain is badly needed.

Cowley.—Corn-planting progressing; oats up and look well; grass growing rapidly; wheat improving, though badly damaged; apples, cherries and plums not hurt, other fruits damaged; alfalfa growing finely.

Dickinson.—Favorable week for farm work; much plowing has been done; oats and potatoes are being put in rapidly; about one-third of the wheat will be plowed under; grass starting and trees leafing.

Edwards.—Wheat dead in spots, but half a crop expected; oats- and barley-sowing progressing; grass appearing slowly; high winds are damaging wheat.

Ellis.—Early wheat looking well, half of the late wheat on plowed ground is dead.

Harper.—Favorable week for spring work; corn-planting in progress; many wheat fields being plowed for spring crops; grass growing rapidly.

Harvey.—A fine growing week; corn-planting fairly under way; oats up; what

WESTERN DIVISION.

Wheat promises from a half to three-fourths of a crop, but rain is needed for it. Alfalfa is growing well, range grass slowly. A large acreage of oats and barley is being sown. Peach trees were generally killed in the northern counties, more or less injured in the southern. Other fruits but little injured.

Clark.—Grass and alfalfa have grown very rapidly; first of week cattle suffered much from heat and heel flies, but their condition is improving with the growing grass.

Decatur.—Wheat in good condition, some little damage but not more than usual; small grain nearly all sown; corn-planting begins next week.

Finney.—A growing week; range grass coming out well; fruit blooms just appearing; ground in fine condition for work.

Ford.—Wheat looks bad; peach trees severely injured by cold winter; cattle doing well.

Gove.—Good farming weather; ground in fine condition; grass starting slowly; wheat damaged more than was suspected.

Gray.—Spring wheat- and barley-sowing nearly finished; fruit prospects poor; range turning green; windy.

Greeley.—Soil under surface damp for two feet; grass and winter grain starting.

Hamilton.—Fruit not so badly injured as was feared; wheat looks fair, not much killed; alfalfa is fine, but we need rain.

Kearny.—Some wheat injured by the high wind; barley sown in February is doing well; alfalfa growing rapidly.

Logan.—The warm weather is bringing the grain and grass up well.

Morton.—Prairie grass starting; no peach blossoms; plums and cherries all right; a few apricot blossoms; but little spring plowing done; live stock poorer than usual but losses light.

Ness.—Favorable week for farm work; ground in fine condition; a large acreage of oats and barley being sown, some oats coming up; some early-sown barley rotting in the ground; grass starting; live stock doing well; potatoes nearly all planted; much corn in.

Norton.—About one-fourth of the wheat is damaged, that sown in stubble or cornstalk fields seems all right; reach trees nearly all killed; considerable spring wheat and oats sown this week.

Rawlins.—Alfalfa growing very slowly.

Thomas.—Favorable for farm work; late-sown wheat just coming up, will be poor stand; spring grains nearly all in; range grass beginning to show; some gardens made.

Trego.—Wheat is looking better, though probably but half a stand; a larger acreage than usual of barley and oats will be sown; range grass grows slowly.

Wallace.—Everything doing well.

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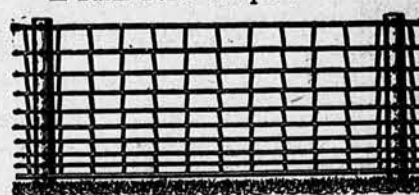


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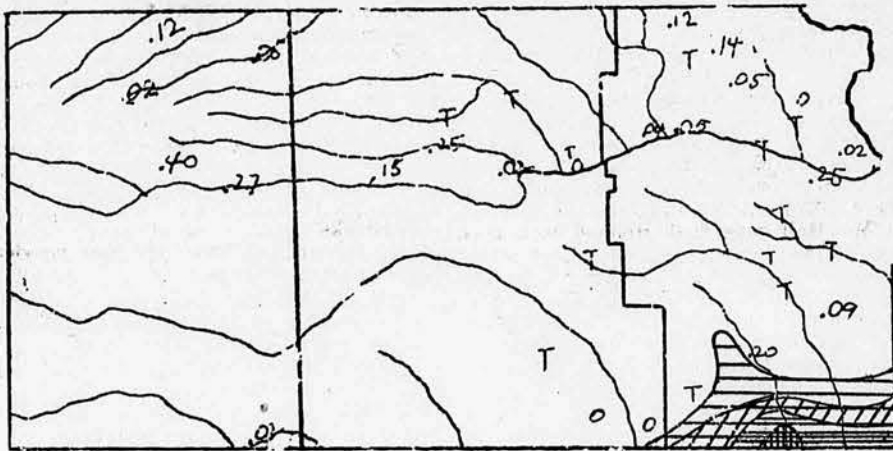
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ACTUAL RAINFALL FOR WEEK ENDING APRIL 15, 1899.

and oats sown; grass starting; wheat improving.

Crawford.—Warm, growing week; oats about sown; but little plowing for corn has been done.

Douglas.—A favorable week; wheat improving; oats-sowing, plowing and some planting where ground is favorable; fruit trees and bushes not injured so badly as first believed.

Elk.—A good week for spring work; grass starting well.

Franklin.—A good week for farm work; oats practically all sown; flax-seeding in progress; many plowing for corn, some planting; gardening begun.

Greenwood.—The favorable week has been improved; some corn planted in the south; oats doing well; prairies showing some green.

Jackson.—Wheat promises a half crop now; oats-sowing begun, a small crop.

Jefferson.—Weather fine; oats-sowing, potato-planting, and gardening in progress; wheat, small crop, looks well.

Labette.—A growing week; oats coming up fairly well; about half the corn is planted; some peach trees in bloom; grass is starting; gardens generally made.

Leavenworth.—Vegetation slow; ground wet; no planting done; wheat not promising; pastures becoming green; stock in moderate condition.

Marshall.—A fine week; a large acreage of oats being sown; wheat has not improved as was expected and many fields are being plowed up or sown to oats; most of the clover is killed; apple trees in good condition; peach buds are dead.

Montgomery.—A growing week; apples leafing; plums and peaches beginning to bloom; prairie grass starting; the wheat crop as a whole not good; a large acreage of corn planted this week; oats coming up.

Morris.—A growing week; wheat looks very much improved; corn-planting in progress; early apple trees beginning to leaf; peach trees badly injured; plums, cherries and pears all right.

Nemaha.—Plowing progressing; a large proportion of oats has been sown; most of the wheat was winter-killed, the ground will be planted with spring crops.

Osage.—Much plowing and planting has been done; pastures are looking green; gardening in progress; apple prospect good.

Pottawatomie.—A warm, favorable week for all spring work; wheat is developing better than expected; potato-planting has begun.

Riley.—A warm week; oats being sown; grass and winter wheat growing well.

Shawnee.—Potato-planting and oats-sowing progressing; tame grasses growing well; trees turning green.

Wilson.—Corn-planting in progress; trees and prairie grass showing green.

wheat there is is growing fairly well; apricots in bloom.

Kingman.—Favorable weather for crops; wheat is showing green but is thin on the ground.

Marion.—Wheat improving; oats all sown, coming up with a good stand; corn-planting well begun.

Mitchell.—Oats-sowing and potato-planting progressing; about one-third of the wheat is damaged; alfalfa starting well.

Osborne.—Wheat growing rapidly; some fields of wheat look well, others that looked dead are coming out and promise half to two-thirds stand, though some fields are entirely gone; potatoes are nearly all planted; oats and barley are sown; gardens are being made.

Pawnee.—Wheat killed more than expected, but remainder growing rapidly; oats and barley generally sown and coming up; corn listing in progress; apples and cherries promise full crop; plums and pears fair; many peach trees killed; grass starting very slowly, needs rain.

Phillips.—Wheat and rye doing well; alfalfa in fine condition; farm work progressing slowly.

Reno.—Growing week; corn-planting in progress; wheat looking well.

Republic.—Oats-sowing progressing rapidly; wheat is somewhat spotted, early wheat, where protected, looks well, will be two-thirds of a stand, some few places have been sown to oats; protected alfalfa looks well.

Rush.—Wheat much improved, failure may not exceed one-fourth of acreage; potato-planting nearly finished; will be large acreage of oats and barley.

Russell.—Grass growing rapidly; nearly one-half of the wheat was winter-killed, all of it needs rain; potatoes largely planted; corn-planting begun.

Saline.—Alfalfa growing well; wheat improving, bottom land in fair condition, about half the upland will be plowed up and put in other crops, the rest of the upland wheat will be thin, with a few exceptions; apples, cherries, plums and pears now promise well.

Sedgwick.—Wheat somewhat damaged but can make a good crop; a larger acreage of corn that usual will be planted; oats and barley coming up in good condition; corn-planting generally began the 10th; earliest apricots beginning to bloom; peaches will have a good show.

Stafford.—Conditions very favorable for wheat and it made a good growth; early-sown barley and oats are coming up; but little corn planted.

Sumner.—Wheat outlook but little improved.

Washington.—Early wheat looks well, late-sown badly, most of it was late-sown and much of that will have to be plowed up; oats mostly in; corn-planting not begun.

The Home Circle.

OH! WHY SHOULD THE SPIRIT OF MORTAL BE PROUD?

Oh! why should the spirit of mortal be proud?
Like a swift-fleeting meteor, a fast-flying cloud,
A flash of the lightning, a break of the wave,
Man passeth from life to his rest in the grave.

The leaves of the oak and the willow shall fade,
Be scattered around, and together be laid;
And the young and the old, and the low and the high,
Shall moulder to dust, and together shall lie.

The infant a mother attended and loved;
The mother that infant's affection who proved;
The husband, that mother and infant who blest,
Each, all, are away to their dwellings of rest.

The maid on whose cheek, on whose brow,
In whose eye,
Shone beauty and pleasure, her triumphs are by;
And the memory of those who loved her and praised,
Are alike from the minds of the living erased.

The hand of the king that the scepter hath borne,
The brow of the priest that the mitre hath worn,
The eye of the sage, and the heart of the brave,
Are hidden and lost in the depths of the grave.

The peasant whose lot was to sow and to reap,
The herdsman, who climbed with his goats up the steep,
The beggar who wander'd in search of his bread,
Have faded away like the grass that we tread.

The saint, who enjoyed the communion of heaven,
The sinner, who dared to remain unfor-given,
The wise and the foolish, the guilty and just,
Have quietly mingled their bones in the dust.

So the multitude goes, like the flower or the weed,
That withers away to let others succeed;
So the multitude comes—even those we be-hold
To repeat every tale that has often been told.

For we are the same that our fathers have been;
We see the same sights that our fathers have seen;
We drink the same stream, and we view the same sun,
And we run the same course that our fathers have run.

The thoughts we are thinking, our fathers would think;
From the death we are shrinking, our fathers would shrink;
To the life we are clinging, they also would cling;
But it speeds for us all like a bird on the wing.

They loved—but the story we cannot un-fold;
They scorned—but the heart of the haughty is cold;
They grieved—but no wall from their slum-bers will come;
They joyed—but the tongue of their glad-ness is dumb.

They died—ay, they died; and we things that are now,
Who walk on the turf that lies over their brow,
Who make in their dwellings a transient abode,
Meet the things that they met on their pilgrimage road.

Yea! hope and despondency, pleasure and pain,
We mingle together in sunshine and rain;
And the smile and the tear, and the song and the dirge,
Still follow each other, like surge upon surge.

'Tis the wink of an eye, 'tis the draught of a breath,
From the blossom of health to the paleness of death,
From the gilded saloon to the bier and the shroud!
Oh! why should the spirit of mortal be proud?

Written for Kansas Farmer.

THE OLD CLOCK.

BY OLA HEDGES.

"Hasn't Mary a clock?" I inquired of Grandma Tompson, as I glanced around Mary's neat sitting-room. "No," said her mother. "We thought of giving her one for a wedding present, but changed our minds, and she's always done with her watch. My father gave me a clock when I was married—a nice one, one of those great, tall, old-fashioned ones. They were new-fashioned then, but we didn't have any place to put it, so it stood on the floor in the sitting-room until Mary was big enough to creep everywhere, then whenever she could get in there she was right at that clock, until I couldn't stand it any more, and I had John get a small one and put the big one up in the garret. Of course we didn't wind it any more and it stood just as it was when it run down. It was just 2 o'clock. I've always thought

since father died that that clock stopping there was a warning, but maybe it wasn't; but anyway it stayed there a couple of years and nobody thought of touching it.

"One day 'long late in the summer John was putting up hay over at father's, and after dinner he says: 'Sary, father wants you to come over there this afternoon.' I was making tomato preserves and had a lot on the stove, and I says: 'I don't see how I can. Tell him I'll come to-morrow.' 'Well,' says John; 'but he seemed real anxious.' I would have gone if I could have seen into the future for one minute, but I couldn't. We might all do differently if we could see ahead. But I had those tomatoes scalded, and if I left them they would be spoiled; so I made up my mind to go in the morning. John had been gone about an hour, and I was standing by the table washing some cans, when I heard something upstairs like a clock. I listened and heard it strike 1—2, just as plain as I ever did. I just stood and trembled. The new clock didn't strike, and Mary had never heard one, but she dropped her playthings and began to dance around and ask, 'What is that? what is that?' But when she looked at me she seemed to get frightened and began to cry. I got her to playing again, and then I went upstairs and looked at the old clock. It wasn't running, and I made up my mind that something must have shook it; so I shook it, and stepped on the floor; then I struck the corners and thumped it all over, but it wouldn't strike; then I thought of bugs or mice getting into it and I opened it, but I didn't find anything. I tried to make up my mind that I had imagined it. People do when they are alone sometimes, you know; but then if I had imagined it, would Mary have imagined it, too? I went back to my work, but I felt nervous and as though something were wrong, and just as I was putting the lids on my preserves one of the men came over to tell me that father was dead. I thought of the clock and looked to see what time it was. It was just half-past 3, and the old clock had struck 2.

"John told me, afterwards, that father came out to the gate when he was going by and asked for me, and he seemed real disappointed; but when they started on he went back to the house, and when they came back he was sitting in his chair as though he were asleep. John passed him to go into the house, and, noticing that he looked strange, went to him. He was dead, and had been for some time.

"Some folks think I am foolish and superstitious, but I know that father died at 2 o'clock and that the old clock struck. I might think it was imagination if I had been alone; but Mary was too little to think of such things.

"When we moved over to the river we had a mantel shelf in the dining-room where the old clock just fit, and so we set it up there and wired the top so that it wouldn't jar. Our boy, Jim, wanted to wind it up, but I wouldn't hear to having it running; but he opened it and set it at 4 o'clock. I took the key and set it at 4 o'clock, and I wouldn't touch it to set it again. Well, nothing came of it until along in the winter and we all went to church but Jim. It was Sunday and Jim wouldn't go; said he didn't like the preacher, and he wanted to read, anyway. When we came back Jim came running out and says, 'Mother, the old clock struck 4.' I asked him if he wasn't meddling with it, but he says, to this day, that he was lying on the lounge in the other room and it struck as if it were running.

"I made up my mind that some of my folks was dead, and I worried about it a good deal for a while, but as we heard nothing for a month or so, I had almost forgotten about the clock, when we got a letter saying that my sister in Michigan had died on the very day and hour when the old clock struck.

"They can't make me believe there is nothing in it," said grandma, as she took little Jim up and commenced to rock him in her arms, "and if they were to tell me that the old clock had struck again I would know something had happened to Mary." Mary was in Omaha and grandma was keeping house for her during her absence.

Cirolets.

I have a dress of light blue Henrietta, faded and soiled, but not in the least worn. What can I do to make it fit for use? The pattern is small.

A good way would be to dye the Henrietta a dark blue with some reliable dye, carefully following all the directions that come with the dye. You could probably purchase a few yards of some light-weight plaid (dark blue and white, or dark blue and old gold, or a fancy plaid) to use with the Henrietta. You would require new lining. In a recent Ladies' Home Journal there was rather a pretty idea for making

over a skirt. The lining would have to be cut exactly like one of the new skirt patterns (Butterick's are as good as any), the plaid material cut to fit the lining to a little above the knees. Then cut the Henrietta to fit the upper part of lining, ending in points at front and side—or straight, as fancy may dictate. The joining of the two parts of the skirt might be finished by gimp or a tiny ruffle. The waist and sleeves may be made of the Henrietta, with high collar, sleeve trimmings, and belt of the plaid. If your figure would permit, the front of the waist might be slightly pouched and a bolero of the plaid worn over. I have a very pretty pattern of a bolero, which you could have on sending a stamped and addressed envelope to the Farmer office.

What would you advise a girl to do under the following circumstances: For some years I have been acquainted with a young man of unexceptionable character and a professing Christian. He courts my society and for three years now has been inviting me to drive with him to various places—church, socials, etc., yet he never gets any further. I am 25 years old, and would be glad to cast in my lot with him should he ask me, but he has never asked me to. Ought I continue to associate with him and so let the world suppose we are engaged?

Junction City, Kans.

This touches a difficult subject, and I could not do better than refer you to an article in the Christian Endeavorer World, by Mrs. Alden, a week or so ago, on this very subject. Have you not a mother or father or faithful friend in whom you can confide? Might not they be able very tactfully to give him a hint that he is not behaving quite honorably in taking your company and so preventing you from learning to love, perhaps, some better man, that is, if he wants nothing more than your occasional companionship? Send a stamp if you would like a more lengthy and private reply.

Paxico, Kans.

ENGLISHWOMAN.

All inquiries for answers required from "Englishwoman" should be addressed to "Home Circle Department," Kansas Farmer, Topeka, Kans. Where a personal answer is required, by mail, kindly enclose with the question a stamped envelope or a 2-cent postage stamp.

The "Mule-Wife."

In the year 1670, in the street known to-day as La Puerto Falso de Santo Domingo, and in the house bearing the number 3, lived a priest, but not as a priest lived he, for, wicked man, contrary to the rules of his order and religion, he surrendered to the weakness of the flesh and took unto himself a wife, but this marriage was not sanctioned by the church, and, notwithstanding the angel of this bishop and his people, he still pursued his evil courses.

Now there lived in the street Las Rejas de Balvanera, below the university, a blacksmith, a holy and religious man, as no doubt all blacksmiths are, and he was one of the sinful priest's best friends; and all in vain were his expostulations to the latter on the wickedness of his conduct, for, as he himself afterward said, "one might as well have preached to the moon."

But all pleasure, sinful or not, must be paid for at some period. "Be sure thy sin will find thee out," says some one; and listen to how this wicked man was made to see the error of his ways, though, unfortunately, he was not the principal victim.

One stormy night the righteous blacksmith was awakened at the hour when "church yards yawn and graves give up their dead" by a loud and clamorous knocking at his door. Arising from his virtuous couch he opened the window and in an angry voice asked who dared disturb an honest citizen, who paid his taxes, at this hour of the night; but he received no answer. As mad as a hatter—and everybody knows that hatters are the maddest people in the world—he descended and opened the door, where he found two negroes holding a small black mule, which they said belonged to his friend, the priest, who, desirous of making a journey early in the morning, requested as a special favor that the mule be shod.

The blacksmith, not over-well pleased at being awakened at such an hour, consented to shoe the mule. Soon the shoes were ready, and quickly they were nailed to the mule's feet; not peacefully, however, was this done, for the mule "kicked like a mule," and it was only by tremendous blows from the negroes, blows enough to kill an ordinary mule, that the operation was performed. Again, and as if to let it know that the work was done, was it severely beaten, and so cruelly that the smith had to interfere. Bidding the negroes good night, the honest and virtuous blacksmith returned to bed, but not to sleep, for this strange conduct of the priest in sending a mule to be shod at midnight and by two negroes, sur-

prised him too much to permit the drowsy god to come.

At break of day the smith, anxious to see his friend before he set out on his journey, hastened to his house, but, much to his surprise, found him asleep.

"What, still asleep, and you have such an important journey to make?" he cried, awakening his friend.

"A journey, hombre! you must be dreaming. Who told you that?" inquired the clergyman.

The smith related what had occurred the previous night. His friend laughingly assured him that he must have been deceived, for, first of all, he had no black mule, and, lastly, no negroes in his service, and that some rogue had had his mule shod at his (the priest's) expense.

As this was too good a joke to keep, the honest clergyman decided to tell it to Juana, who would enjoy the story at the smith's expense, the latter always having been an enemy of hers. So he hastened to her room, and, much to his surprise, found her dead.

Seizing one of her hands he dropped on his knees at her bedside, and horrified he was to see that it was stained with blood and black from innumerable blows, and that the other hand was the same, but his surprise and horror were even greater when he observed that mule's shoes were fastened to each. The smith now entered the room, and he was struck with horror when he perceived that the shoes fastened to her hands and feet were those he had so carefully and firmly hammered on the mule. Great Jupiter! How did this occur?

As can be easily imagined, the astonishment of the citizens was great when they heard of this strange affair. A woman shod like a mule! Had anyone ever heard of the like? And in crowds flocked the wise men of medicine and theology to hear the blacksmith relate the wonderful tale and to see the mule-shod woman. After many learned discussions all agreed that Juana had been punished by Divine Providence for her sins; that an agreement must have been entered into between Divine Providence and his Satanic Majesty, whereby the latter would undertake the work, and that the two negroes were especially sent for that purpose. Everything was now satisfactorily disposed of; the smith returned to his forge, but never again would he shoe a mule. The priest, who ought to have been punished, entered a monastery, where by his exemplary manner of life, he led many into the paths of virtue and righteousness. But from that fatal night the neighbors, whenever they hear of a woman forsaking the narrow path to enter the broad one, always very charitably say that she will meet the fate of Juana, who, for her sins, was converted into a black mule and shod as one.—Two Republics.

Nasal Catarrh quickly yields to treatment by Ely's Cream Balm, which is agreeably aromatic. It is received through the nostrils, cleanses and heals the whole surface over which it diffuses itself. Druggists sell the 50 cent size. Trial size by mail, 10 cents. Test it and you are sure to continue the treatment.

Announcement.

To accommodate those who are partial to the use of atomizers in applying liquids into the nasal passages for catarrhal troubles, the proprietors prepare Cream Balm in liquid form, which will be known as Ely's Liquid Cream Balm. Price including the spraying tube is 75 cents. Druggists or by mail. The liquid form embodies the medicinal properties of the solid preparation.

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If you use dyes that claim to color both cotton and wool with the same dye, you run the risk of spoiling your goods, or of getting colors that will fade right out. They may dye cotton, but they will only stain wool. Diamond Dyes will always give satisfaction.

Sample card of colors and direction book for home dyeing mailed free on request.—Wells, Richardson & Co., Burlington, Vt.

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The Young Folks.

WHAT IS GOOD.

"What is the real good?"
I asked in musing mood.
"Order," said the law court;
"Knowledge," said the school;
"Truth," said the wise man;
"Pleasure," said the fool;
"Love," said the maiden;
"Beauty," said the page;
"Freedom," said the dreamer;
"Home," said the sage;
"Fame," said the soldier;
"Equity," said the seer.
Spoke my heart full sadly:
"The answer is not here."
Then within my bosom
Softly this I heard:
"Each heart holds the secret;
Kindness is the word."
—John Boyle O'Reilly.

Written for Kansas Farmer.

YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 57.

AN AMERICAN CELEBRATION.

It had been my intention last year to thoroughly describe the manner in which the loyal American citizens celebrate Washington's birthday anniversary in Germany. An event occurred in the history of the United States—and of the world, one might say—which made such a description impossible, as the occasion was not observed according to previous program arranged, on account of the horrible fate which befell the battleship Maine, and her brave sailor men in Havana Harbor, February 15, 1898.

In one short year since that date, war had been declared between the United States and Spain; Germany had been inclined to favor her Spanish cousins, and show disfavor to American interests; the war had been successfully terminated in America's favor, and Germany had become wonderfully impressed with the importance of Your Uncle Samuel. Everything seemed to transpire favorably for the regular American celebration in Berlin on February 22, and I am enabled to complete the description of the day begun in my letter, number 19.

Greater preparations were made for this celebration than ever before, as it was determined that a welcoming reception should be tendered the new Consul General, Frank H. Mason, who had recently been appointed to Berlin by President McKinley, to fill the vacancy caused by the death of Consul General Goldschmidt, a few months ago.

All the American Consuls in Germany, journeyed to Berlin on February 22, to pay proper respect to the "Father of his Country" and the new Consul General. The last named individual, however, was no stranger to Germany, as he had been Consul at Frankfurt for a long time and is quite popular with Americans in Germany, to nearly all of whom he is well known.

From 3 p. m. till 6 o'clock the usual reception was held at the home of Ambassador White. Every American heart whose owner drove up Lenne street in the Thiergarten that afternoon, was treated to a thrill of patriotic pleasure at the sight of the large American flag which floated from the balcony of the Ambassador's residence.

Our party did not arrive till nearly 5 o'clock and found the rooms comfortably filled with only Americans, and it did one good to hear so much English spoken, and see so many familiar American faces. It seemed, for the time being, that we were actually, as well as constructively, in United States territory again.

The Ambassador and Mrs. White received alone. Mrs. White, being in mourning for her mother, was dressed in a very handsome black silk, with short train and diamond ornaments. Mrs. Jackson, wife of the first Secretary of the Embassy, and Miss Ruffner, her niece, assisted through the rooms in entertaining the guests.

On account of the fact that many of the visiting Consuls were unaccompanied by their wives, the gentlemen figured in the majority; but I did not hear a single lady make the least complaint on that score. Ladies are so very unselfish.

The rooms were most artistically and beautifully decorated, but the dining room eclipsed all the rest. The long table was exquisitely arranged, the most beautiful one I ever saw. There were many kinds of lovely flowers, which, with the elegant plate and the many good things spread thereon for the guests, all enhanced in appearance by the colored shaded lights, presented a view which suggested that Aladdin had rubbed his lamp, and the genii had spread the feast. The meat dishes were of various kinds, among which stuffed pheasants abounded, flanked by salad dishes arranged in fantastic designs. The largest cakes on either end of the table were frosted in patriotic style, representing the American flag.

At one end of the room coffee, tea and chocolate were served, and at the opposite were provided wines for those inclined in

that direction. I was fortunate to have as my escort at table Consul and Mrs. Monaghan and their company afterward through the rooms. Consul Monaghan is located at Chemnitz and is the only Democrat Consul in Germany retained by President McKinley's administration. He is considered one of the cleverest men ever here in consular service, and he is certainly one of the wittiest men I ever have had the pleasure of meeting. He gave us part of his speech and many of his jokes, while at table, in an undertone, of course, which he afterward delivered at the public entertainment in the evening at the Kaiserhof hotel. He proved to my entire satisfaction that an American by the name of John Smith discovered Ireland, and not St. Patrick at all, and many other similarly authentic historical items not usually found in school readers or encyclopedias.

Although the hour passed delightfully in such good company, our party had to hasten home at 6 o'clock in order to prepare for attending the principal celebration of the day, which had been arranged for 8 o'clock, at the Kaiserhof hotel, and one of our number was on the program for the evening entertainment.

At the appointed hour we were at the big hotel, which is one of the finest in the city of Berlin. Already the rooms were well filled with pretty and beautifully dressed women and handsome men; for in a foreign land every American woman is pretty and every American man is handsome—to an American.

At 8:30 everyone adjourned from the reception rooms to the banquet hall which was tastefully and appropriately decorated with American and German flags. A raised platform at one end of the room bore amid a beautiful arrangement of evergreens, the bust of Washington, and one of Kaiser Wilhelm II. was placed in the midst of a perfect thicket of lovely plants at the opposite end of the room. The Kaiser and George seemed to solemnly smile at each other, as though silently enjoying the occasion, and I am almost sure I caught them both slyly winking an eye or two at each other as if to indicate their humorous satisfaction at the peaceful aspect of national affairs, which permitted them to occupy the same room on so public an occasion; and that whatever the differences between them might have been during the past year, they now did not want nor expect Samoa trouble.

The committee in charge of the celebration were named on the program as follows:

Hon. Andrew D. White, Ambassador.
Frank H. Mason, Consul General.
William M. Griscom.
Otis B. Boise.
Stephen H. McFadden.

The Ambassador was "Master of Ceremonies," and after the 250 Americans were seated at the tables he announced the names and presented in turn the four individuals who were to amuse the company for an hour.

First was Mr. Hugh McGibeny, of New York, who sang an American song: "The Battle Cry of Freedom," by an American composer, George F. Root. The second on the program was Miss Celeste Nellis, of Topeka, who played a piano solo, "Exhilaration," written by an American, Wm. H. Sherwood, of Chicago; this was followed by a song, "Samson et Delila," by Miss Bigelow, of Boston. Judging from the title of the song I should presume that Samson was dreadfully indiscreet as to his diet.

After the music the principal speaker of the evening, Mr. Selden Long Haynes, was introduced by His Excellency, the Ambassador. I cannot give extracts of his speech, but it was well received, as also were the music and singing which preceded it. The German papers which had reporters present, mentioned in flattering terms everything connected with the celebration.

The "exercises" had all been in English, the supper which followed was entirely in French, according to the menu cards; of the items were:

Consomme en tasses,
Turbot se hombarde,
Poularde rotie,
Salade—Compote,
Vanille et Fruits glace, etc.;

but it tasted just as nice as though it had been entirely in some other language.

During the progress of the dinner a pleasant little ceremony was introduced entirely separate from the memory of George Washington. The various Consuls had joined in procuring a "loving cup"—a present to Consul General Mason as a token of sincere regard and esteem. The "loving cup" was an extremely beautiful work of art by the Meriden Britannia Company, of Meriden, Conn.; it bore an inscription testifying the high regard and esteem in which the recipient was held by his brother officers.

The presentation speech was made by Consul Peters, and as I wish to retain a list of those present, I'll name them here:

Consul General Cole (Dresden), Consul Pitcairn (Hamburg), Consul Barnes (Cologne), Consul Ozmun (Stuttgart), Consul Erdmann (Breslau), Consul Monaghan (Chemnitz), Consul Peters (Plauen), Consul Sawter (Glauchau), Consul Moore (Weimar), Consul Hughes (Coburg), Consul Winter, Consul Harris and Vice-Consul General Johnson (Dresden), Consul Warner (Leipzig), Consul Anderson (Hanover), Consul Albert (Brunswick), Consul Liefel (Freiburg), and Consul Stern (Bamburg).

Following the presentation the following toasts were responded to: "The Day We Celebrate," by His Excellency, Ambassador White; "The Emperor," by Consul General Cole; "The President," by Consul Ozmun; "The Press," by Consul Stern; "The Ladies," by Consul Anderson. Consul Monaghan's humorous speeches caused much merriment and conducted greatly to the enjoyment of the occasion.

Consul General Mason was described by the Berlin Anzeiger, the next day, as follows: "Herr Mason steht gegenwaertig im 53 Lebensjahre. Als junger Mann von 18 Jahren zog er in den Krieg und trug vier Jahre die Waffen seines Vaterlandes. Er schied als Hauptmann aus der aktiven Armee und bekleidet heute die Charge eines Generalmajors." This information is intended exclusively for my German friends who read this in America, and I am told there are several who follow my letters closely.

We had enjoyed the "exercises" in English, the supper in French, and now all adjourned to the big ball room where a German band discoursed lovely German music and a very large quantity of German dancing was indulged in. However, only the young folks and the older ones took an active part and none of them danced much after 3 o'clock in the morning.

A GERMAN CELEBRATION.

In my letter number 21, April 7, of last year, I gave a short description of the birthday ceremony in honor of Queen Louise. This year on March 10, the beautiful statue in the Thiergarten was more gorgeously decked with roses and flowers than ever before. The day was warm as a May day in Kansas and the people improved the occasion to practically through the park in the vicinity of the statue; all desiring to show loving respect to the only Queen of Prussia they care to remember.

Besides the decorating of the statue there was held a "festlichkeit" in the "New Opera House" in the evening. The object of this latter ceremony was to thoroughly celebrate the day and also to raise a sum of money to assist in building a statue of the beloved Queen in Tilsit, where the "Peace" treaty between France and Germany was signed, July 9, 1807.

This entertainment was given under the auspices of the "Queen Louise Verein," which is composed of Berlin's most fashionable and select circle of society ladies.

The "New" opera house is in the Thiergarten, near the capitol, and directly in front of it is the "Monument of Victory," erected in 1872 to commemorate the Victory of Sedan.

Enough tickets had been sold to furnish people to fill the opera house several times, but we were fortunate in getting comfortable seats in front of the stage. The Emperor and Empress had promised to attend, but again they disappointed the people by not exhibiting royalty. The boxes were all crowded with military officers in full uniform, and there were decorations enough of theater and officers to give the affair a quite important appearance.

Along the sides of the room were many fancy booths, presided over by handsome German ladies in silks and diamonds, who had articles and refreshments to sell, the same as a church festival in Kansas. I cannot take space to fully describe it all

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nor the stage performance, which was of a nature to commemorate Queen Louise, her husband, Frederick William II., and the famous people of their time. We had to do only a little imagining and we really saw those people as they were nearly one hundred years ago.

In the midst of the performance a "pause" was enjoyed, and no theater performance in Germany is ever complete without one "pause" or more, to give a chance for eating and drinking. Countess Von V. in silks and diamonds was serving baked beans and other army food of Queen Louise's time; the Baroness X. was serving all kinds of fragrant sausages, raw ham and other ambrosial refreshments; Frau Obergeneralsmajor A. was superintending the beer and cheese, "und so weiter."

The ladies, of course, were magnificently robed and made it more interesting by having their liveried footmen standing in the background.

The second part of the program consisted of fancy dances in costume, by society young ladies on the stage, after which the dancing entertainment was open for all and German feet flew swiftly till long, long after midnight, to the music furnished by the royal band of 125 men.

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KANSAS FARMER

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BARLEY AS FEED—FISH.

Editor *Kansas Farmer*:—As we are readers of the *Kansas Farmer* and have been for twelve years and expect to be for many more unless financially embarrassed, and as we consider this will not be our dilemma if we follow the advice of the *Kansas Farmer*, and as we have often written for advice before and the same proved successful, so we will ask your advice on two subjects:

First—We would like to know the value of barley as a feed and the fattening qualities compared with oats, and for what kind of stock it is best. Should it be ground or soaked before fed, and is the straw of any use for feed?

Second—We have a fish pond about complete, dug by the side of an ever-flowing stream. It is sub-watered and has a sand bottom and will never go dry and never overflow. We want to put fish in it. What kind do you think is best for our own use? Some object to carp on account of the amount of bones and because the meat is not as good to eat as that of other fish. Please give us your best advice and publish the same in the *Kansas Farmer*. Where can we get our fish and what will they cost?
J. B. WAMPLER.
Harper, Kans.

Taking up these inquiries in the order in which they are propounded, the editor may be able to throw some light on them.

First, the composition of barley and oats may be compared, and with them we may place common Dent corn, which is, perhaps, to be considered the standard feed of America.

TABLE I.—Composition of Barley, Oats and Corn.

	Dry matter in 100 lbs.	Digestible nutrients in 100 lbs.			
		Protein.	Carbohydrates.	Fat.	Total digestible.
Barley...	89.1	8.7	65.6	1.6	75.9
Oats.....	89.0	9.2	47.3	4.2	60.7
Corn.....	89.4	7.8	66.7	4.3	78.8

It will be seen that the total digestible nutrients in 100 pounds of barley exceed those in 100 pounds of oats by more than fifteen pounds. There are also wide variations in the composition of the two grains, making their values for feeds depend largely upon the nature and demands of the animals to be fed and the purposes for which they are to be fed.

Protein is recognized as the muscle—lean meat—and milk former. Carbohydrates and fats are fat-producing feeds, but are not of equal value for this purpose. One pound of fat is estimated to equal 1.75 pounds of carbohydrates in producing fat. Multiplying the figures representing the fats in the above table by 1.75, and adding, we have as relative digestible nutrients 78.7 for barley and 68.0 for oats. For fattening purposes these grains may be assumed to stand about in the relation of these last figures, provided the animals receive protein enough to meet the demands of health, vigor, and muscular development. It will be seen by comparing either barley or oats with corn that the latter is a more fattening feed but contains considerably less protein.

It is to be remembered that no one feed

constitutes a complete, or perfect, ration. The relative value and the suitability of any feed for a given animal will depend, in some measure, upon the composition of the feed to be used with it. To illustrate: If the animal be a pig of the Poland-China breed, he may make good gains on corn. If he have a liberal supply of skim-milk with his grain—skim-milk being rich in protein—he will almost surely make better gains from corn than from an equal weight of either barley or oats. Any other breed than Poland-China will probably be found to lack in thrift if fed on an exclusive corn ration and will, not unlikely, do better on barley than on corn, the demand for protein being much more completely met by barley than by corn and being more imperative for every other breed than for the Poland-China.

Alfalfa is rich in protein, and it has been found at the Kansas Experiment Station that, for the purpose of balancing the grain ration of pigs, it is exceedingly valuable and is relished even in the form of dry hay.

A good deal of attention has been given to the problem of determining the proper proportions for balanced rations for several kinds of farm animals under varying circumstances. If it were definitely known just how much protein, how much of the carbohydrates, and how much fat any animal requires, the feeding problem would be greatly simplified. A German investigator, Wolf, is the author of tables dealing with this subject, and, while these tables are not taken as entirely accurate, they are, for lack of better, generally used as the basis for computing rations.

TABLE II.—Standard Rations per 1,000 Pounds Weight for Some Animals (after Wolf).

	Digestible food materials.			
	Total organic matter.	Protein.	Carbohydrates.	Fat.
	Lbs.	Lbs.	Lbs.	Lbs.
For horses moderately worked	22.5	1.8	11.2	.6
For milch cows	24.0	2.5	12.5	.4
For fattening steers (average)	25.0	2.7	14.8	.6
For fattening swine (average)	23.8	3.9	23.0	.6

To facilitate comparison of these estimates of requirements with the food elements furnished by the grains under consideration, the table of feeding standards is presented below to show what should be the composition of 100 pounds of feed for horses, milch cows, fattening cattle and fattening swine:

TABLE III.—What 100 Pounds of Feed Should Contain.

	Digestible food materials.			
	Total digestible.	Protein.	Carbohydrates.	Fat.
	Lbs.	Lbs.	Lbs.	Lbs.
For horses moderately worked	60.5	2.7	49.8	8.0
For milch cows	64.1	1.7	52.0	10.4
For fattening steers (average)	72.4	2.4	59.2	10.8
For fattening swine (average)	90.3	7.2	77.2	13.1

The modification of Wolf's table presented in table III places it in terms readily comparable with the exhibits of composition of the grains under consideration, as shown in table I. Considering barley, which contains 75.9 pounds of digestible nutrients in 100 pounds of the grain, it is seen that in this total it is above the requirements for horses and for milch cows, rather above for fattening steers, and considerable below for swine. The last named, it will be noticed, requires a very concentrated food. It is true, however, that the swine can manage a feed which contains considerable "roughage."

Considering the components of the di-

gestible portions of barley, it will be seen that the protein—which is 8.7 pounds per 100—is a little above the 8 pounds required in 100 pounds of horse feed and is below the requirements for each of the other animals named. The carbohydrates of barley are 65.6 pounds per 100, being above the requirements for every animal except swine. The fat in barley is low, but carbohydrates perform much the same function as the fats and are readily converted into fat in the animal economy, so that the low percentage of fat in barley is not necessarily a serious objection.

Oats contain but 60.7 pounds of digestible nutrients to 100. This amount is below the requirements of every animal except the horse. For the horse it is almost exactly right, according to theory. Experience corresponds with theory on this point. Oats contain more protein than does barley, and more than the horse requires. In carbohydrates oats are a little under the theoretical requirements of the horse, but this deficiency is fully made up in the excessive proportion of fat. Considered from every point of view oats are almost ideal horse feed. For milch cows oats are good, though somewhat deficient in protein for the cow. The carbohydrates and fats of oats taken together are about right for the cow. For fattening steers and swine oats contain too little of the fattening materials, i. e., carbohydrates and fats.

Corn is seen to be a concentrated feed, having, in each 100 pounds, 78.8 pounds of digestible nutrients. In this respect it is too rich for an exclusive feed for every animal except the pig, for which it is a little too low. But in protein corn is below the requirements of every one of the animals under consideration. In carbohydrates and fats it is excessive for all except the swine, and for him it is nearly right.

Barley is easily balanced as a ration for the horse, by the addition of hay or fodder. These bring down the proportion of digestible constituents by adding "roughage." If the hay be alfalfa, which is rich in protein, the ration of barley and alfalfa may be made nearly as ideal as oats for the horse. Barley and alfalfa may be made almost ideal for the cow. If alfalfa is not at hand, prairie hay and wheat bran may be fed with barley to both horses and cows. Barley and prairie hay make good feed for both horses and cows, but bran is needed with them to make the ration as perfect as one of oats. Barley is suitable for fattening steers, and, if bran or oil meal be added to bring up the protein, fattening steers should do well on barley—better than on oats, and better than on corn unless a good deal of some feed rich in protein be added to the corn. It has been seen that swine require very concentrated feed. Barley is, in this respect, better than oats for swine. Swine require feed rich in protein. In this respect barley is better than corn. It should be remembered that Wolf, the author of the tables taken as standards, was a German, and that swine receive feeds richer in protein in Germany than in this country. Here we have the corn-fed hog. He does not bring as much per pound as the protein-fed hog of other countries, but he is produced cheaply. Doubtless we shall be able to improve the quality and price of our pork, as well as the healthfulness of our swine, by introducing more protein in their ration. For this purpose barley is good, alfalfa is good, wheat bran is good, oil cake is good.

It is readily seen that barley is a more fattening feed than oats, a less fattening feed than corn, a feed that may well be used largely if it can be produced cheaply.

Barley as it grows in Kansas is a hard grain. One of the most extensive users of this grain for feeding purposes is Col. C. D. Perry, of Englewood, Kans., who has found that barley, as well as Kaffir corn, is best prepared by crushing between rolls. This is better than grinding for these hard grains, for it makes little fine dust and no hard granules, and leaves the grain in soft thin flakes, which are exceedingly well digested by all kinds of animals. Soaking is practiced by some, but the majority of expert testimony does not favor soaking.

Second.—The fish pond described by our correspondent leaves little to be desired—except the fish. The authorities will doubtless tell him to procure carp, because they multiply rapidly and grow rapidly. The editor would advise channel cat, croppie, and black bass on account of their better flesh. It will, however, be well to write to Hon. George Wiley, Kansas State Fish Commissioner, Meade, Kans., both for advice and to apply for fish for the pond. Write, also, to the United States Fish Commissioner, Washington, D. C. The Government is doing much to encourage fish-raising, and, no doubt, our correspondent can get abundant information and a start of fish without expense from that source.

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

NEW VIEWS OF TRUSTS.

No subject is more discussed in public prints and from the platform than are the trusts. The vigorous thoughts presented in another place in this paper by ex-Governor Crawford will meet a hearty response in the minds of thousands of readers. But while he may agree with this veteran thinker, it will not be well for the reader to blind himself to the fact that trusts are rapidly increasing, are crowding small, and even large, independent concerns out of business; that they are attracting a large portion of the capital of the country by the promises of the trust promoters that large dividends are sure on account of the trust's ability to produce cheaply and to throttle competition. It need not be denied that these trusts will pay large dividends for a time—whether from earnings or from sales of stock will not greatly concern the promoters. Prudent people are also observing that the trusts are being capitalized at enormous figures, in most cases far beyond the real values of the properties represented by the stocks.

Notwithstanding the facts in the case, there are those who are ready to defend the trusts, and, since they are likely to be with us for these many years and their defenders are likely to increase in numbers and to change from defenders to advocates, it will be well to take note of their manner of defense. The president of the United States Export Association appeared a few days ago before the Congressional Industrial Commission and expressed his views, as follows:

"I used to think the combinations of capital would abrogate competition, but experience has shown that, instead of abrogating competition, it has elevated that force to a higher plane.

"If a combination of capital in any line temporarily exacts a liberal profit, immediately capital flows into that channel, another combination is formed and competition ensues on a scale and operates with an intensity far beyond anything that is possible on a small scale, resulting in breaking down the combination and the decline of profits to a minimum.

"We must have this organization of industry if we would keep up with the procession in the march of the world's trade. There are 1,440,000,000 people in the world, of which we have 75,000,000, possessing a larger purchasing power than any similar number elsewhere, and a larger producing power, because we command the great forces of nature and of brain power embodied in machinery to a greater extent than any other nation.

"With a consuming power of 75,000,000 we have a producing power of 150,000,000. Our problem is to keep our labor and capital continuously and remuneratively employed by preserving our home market and reaching out for a place to dump our surplus among the other 1,365,000,000, each of whom has some wants. There are natural wants and educational wants. The former are principally those of the stomach, and in supplying these we have to compete with the fertile lands and cheap labor of the whole world."

In direct reply to a question regarding the effect of trusts for good or evil, he said: "I believe they are powerful agencies for good. There is much that is bad in them which we should try to eliminate.

"There is good in all, and none is all good. The only trusts which have succeeded for any length of time have been those which have been conducted on a far-sighted basis of moderate margins of profit, relying upon a large turn over and the economies resulting from the command of large capital intelligently administered."

The enormous over-capitalization of the trusts and realization of the fact that, as correctly pointed out in the above quotation, they will introduce competition on a gigantic scale, and that they will probably be made the subjects of restrictive legislation, as are railroads, so that only the best managed will ever earn dividends—these have called forth from the East a note of warning. This note in effect says that the trusts, having destroyed independent industries and the opportunity to invest money and labor in them, and having themselves proven sinking places for the money invested in them, will, in the not distant future, be the cause of such destruction of confidence as will make every investor afraid; that the timid first, and later the wise, will withdraw their money from both investments and loans, hiding it away in safe-deposit vaults, in old stockings, and in holes in the ground, thus causing a panic. It is suggested that the inflation of trust values exceeds in absurdity and in aggregate amount every speculative inflation ever known in this or any country, and that by so much as the inflation is excessive and widespread, in so much will the depression be excessive and widespread and the panic severe.

No writer has undertaken to predict the day or the year wherein the suggested calamity is to come. The *Kansas Farmer* is not certain that it will come at all. But

there are a few observations which will be timely, whatever the future. (1) Trust stocks are not desirable investments for the savings of our kind of people. (2) Freedom from debt is always safe. (3) In time of depression and panic a debt often sweeps away the property it represents and everything else the debtor possesses.

The reader who takes the earliest opportunity to get out of debt and resolutely keeps out of debt will find himself in the best possible position to withstand both the direct and the indirect effects of the surely-coming and omnipresent trusts, whatever these effects may be. The person who is out of debt is always in luck.

PERILS OF IMPERIALISM—TRUSTS.

The Kansas Farmer is able to place before its readers some thoughtful observations on the war with Spain, the Philipinos, colonial empire, the tariff and trusts, by ex-Governor Samuel J. Crawford. Governor Crawford's services to the State of Kansas have been ably performed and notably valuable. He is a keen observer of events and a careful thinker. His office is at the national capital, his home is in Topeka, and his spare time is spent on his farm, in Cherokee County, Kansas. He was for many years president of the Kansas Farmer Company, and, while he never took an active part in the management of the paper, he has never ceased to feel an almost paternal interest in its readers. He has decided views on public questions. His thoughts are similar to those of many other earnest people, and, while not as often seen in print as the hurly-burly get-off-the-earth style of writing, are worthy of careful consideration. Governor Crawford's observations are as follows:

Where are we drifting and what will be the end? The situation, it seems to me, has become serious, if not alarming?

When the present Administration came into power, the United States was at peace with all the world. Business was flowing smoothly in regular channels, and the people, with the exception of those engaged in agriculture, were happy, contented and reasonably prosperous. But these conditions were of short duration. A spirit of unrest began to manifest itself, and, for reasons not necessary to mention, it was soon fanned into a flame, which speedily developed into a demand for war with Spain.

Resolutely the Administration faced the storm, but Congress weakened and war was declared. Then there was but one course to pursue, and that was speedily adopted.

The Cuban ports were blockaded; two hundred thousand volunteers called into service, and, with the old army, rapidly concentrated at points convenient for active operations.

Dewey moved on Manila, and Sampson, Schley, and Shafter on Santiago. The Spanish fleets were destroyed in "one time and two motions," and the Spanish army rounded up on the hills of Santiago and made prisoners of war.

On the 12th day of August the protocol of peace was signed and the war with Spain became a thing of the past. But alas the end was not yet! The real war, with all its horrors and evil consequences, had but just begun.

The purpose of the war with Spain, as officially proclaimed to the world, was forgotten or thrown to the winds, and a new policy inaugurated. Annexation, expansion, and colonial empire rang through the press of the country and rolled as a sweet morsel under the tongues of jingoes; and, as a result, our Government was unexpectedly plunged into a war with a people on the other side of the globe, who had received us with open arms and hospitable hearts. Was this right? Was a war with the Philipinos necessary? Are we justifiable in prolonging this war with a strange people in a remote part of the world, who are struggling for the God-given right of self-government? Are we justifiable in sacrificing the lives of so many of our brave young men in a cause that we know is not just? The Americans are fighting in the Philipinos with a courage and gallantry seldom equalled and never excelled. But for what are they fighting? Is it for the purpose of civilizing and Christianizing those people? Is it for the purpose of teaching them how to govern themselves? Or is it for purposes such as led Cortez to Mexico, Pizarro to Peru, Napoleon to Moscow, and Philip to the Philipinos?

These are questions worthy the careful consideration of every American citizen, because, sooner or later, they will come home to us in force sufficient to demand attention.

Dewey went to the Philippine Islands under the flag of humanity, and as a friend to help drive away the invaders, who, for three hundred years, had been oppressing the people.

When that work was accomplished, he should have sailed away, and left them to

establish a government for themselves, "with powers derived from the consent of the governed." But, as we all know, he did not do this. He staid until reinforced by a large army which landed and took possession of the country.

The people were invited to surrender their arms, and told that we would give them a government with all the modern improvements.

Having felt the weight of foreign oppression and drank deep of the bitter cup of wormwood and gall for three centuries, they naturally objected. They asked for peace; they begged for liberty; they implored us for the right of self-government, but all in vain. We were there to stay—peaceably if we could, forcibly if we must.

Becoming convinced of this fact, they prepared for war, and the battle began. Who fired the first shot, we know not, nor does it matter. Everybody knows why and for what purpose it was fired, and we all know that it is a war to the knife, and the knife to the hilt. For two months the battle has raged almost incessantly, with the end—God knows where. To my mind it is a wanton, cruel, wicked war, that ought to be brought to a close at once.

Suppose, at the close of the Revolutionary War in this country, France had attempted to do with our fathers what we are trying to do with the people of the Philipinos—what would they have said? What would they have done? Just what the Philipinos are doing—died in the trenches. But what is it all for? What would we do with these God-forsaken, disease-stricken islands if we had them? What would we do with the eight million inhabitants who have, from the very nature of things, lost confidence in our government? We can kill them, but that is an expensive operation, because it is a game at which two can play, and will cost us many valuable lives and countless millions of money before the work is finished. In fact, it has already cost us many times more than all the islands are worth, even if we had need of them. But we do not need them. We have here at home the best agricultural, mineral, fruit and stock growing country on the face of the globe. West of the Mississippi lies two-thirds of the territory of the United States, but sparsely occupied and largely undeveloped. In the mineral region of that country alone, which extends from the eastern base of the Rocky Mountains to the Pacific and from Mexico to Alaska, there is room for three hundred million people, with an adjoining agricultural country rich enough, if properly cultivated, to supply the people of this country and all Europe combined.

The undeveloped mineral resources of either one of the States in the mineral belt of the West would, if developed, be worth more to the people and Government of the United States than all the islands of the sea.

Then why sacrifice good, honest, valuable, young American lives in the Philipinos by the thousands and money by the millions for a country that is not worth a dam? (I mean the smallest coin in India.) What, I ask, is the necessity for such a sacrifice? Up to the present time the war with Spain and the Philipinos has cost us no less than ten thousand lives, and, with obligations assumed, not less than six hundred millions of money, and what have we gained? Nothing, I answer, except the everlasting hatred and eternal vengeance of devoted friends whom we relieved from the galling yoke of Spain. Should we attempt to annex the Philipinos or govern the people thereof we shall, judging from the past and present, have a permanent guerrilla war on our hands, the same Spain has experienced for centuries in these same islands. Spain has paid the penalty of her colonial folly in blood and treasure. Many of her brave young men lie buried there; many have been wounded and crippled for life, and now, after a struggle of three hundred years, she goes home broken, dishonored, and ruined.

Then why should we, in view of all the surroundings, attempt to step into her old shoes? Would it not be more prudent, more honest, more profitable, and more in keeping with our "promise" to the world, for this Government to call home its troops and leave the people of those islands to govern and take care for themselves?

The colonial empire experiment of every nation that has tried it, from the Republic of Rome to the downfall of Spain, should be a warning to us.

The United States, being the child of colonies that wore the yoke of oppression, should least of all attempt to fasten that yoke upon others. The plea that we can govern a strange people in a remote part of the world better than they can govern themselves is not well founded. That we have a good Government, when properly administered, no one will dispute; and that our people, as a whole, in point of intelligence, integrity, and enterprise, are the equal, at least, of those of any other country, is also true.

And yet, our Government and people,

great, intelligent, and strong, are, at this moment, confronted with abuses that menace the one and threaten the ruin of the other. I mean the trusts that are now sounding the death knell to competition in trade.

They are numbered by the hundreds and are increasing at an alarming rate. They have absorbed almost every legitimate business and industry in the country and hold a complete monopoly thereon.

They recognize no superior power, not even the subservient legislature that created them.

They defy the laws of the United States and dispute the right of Congress to interfere with them.

They shut out competition and raise prices on the things they have for sale at will.

They shut out competition and purchase the things they wish to buy at their own price. In brief, each trust is a law unto itself, owing allegiance to no superior. Nor is their monopolistic power over the commerce and trade of the country the only bad feature of the trusts. Many of them have capitalized their concerns at a fictitious valuation largely in excess of the real value, and then sold their watered stock to innocent purchasers.

These are serious things that ought to be checked or controlled in some way by the General Government before they go too far.

They have already crippled the agricultural industry of the whole country. Thousands of farmers have been driven from their farms, because, under existing conditions, they found it impossible to make a respectable living thereon. And tens of thousands who own good farms find it impossible to keep even with the world, under the ordeal of the tariff and trusts combined. Products of all kinds are grown in abundance, but the trusts fix the price on substantially everything the farmer has to sell, and on all he is obliged to buy, such as machinery, lumber, farm implements, binding twine, harness, shoes, sugar, coffee, tea, coal, oil, and other things essential. All these are brought under the ban.

Last week ten trusts were organized in New York in one day, under the laws of New Jersey, which seem to have been enacted to order.

Of these, one was a thrashing-machine trust, with a capital of thirty million dollars. This, of course, destroys all competition in the sale of such machines, and leaves the farmer at the mercy of the trust. But this is only one article of the many the farmer is obliged to have.

If this Government is powerless at the feet of these trusts, then the farmers should demand the repeal of the tariff duty on farm machinery, implements, and such other things as they need in their business. It is hard enough for them to submit to tariff duties under lively competition, but under both the tariff and the trusts they are doomed.

The tariff shuts out foreign competition, and the trusts shut off home competition, so between the two they are riveted as if in a vise.

If the tariff duty were taken off all farm implements and other things essential to the farmer, it would relieve him to some extent, even though the trusts continue to hold their grip, because that would let foreign manufacturers in to compete with our trusts, and that, in turn, would cripple their monopoly.

The truth is, our tariff law, for many years, has made combinations possible and manufacturers rich at the expense of the consumers; and now it has bred a brood of vultures which threaten the life of trade. Both the tariff and the trusts need heroic treatment.

The Government and people of the United States never faced a more dangerous, insidious foe. And unless the one is speedily modified and the other destroyed, the consequences will be appalling.

Then, in view of these and some other things that might be mentioned, would it not be advisable for us to first learn how to govern ourselves and correct our own abuses before we go abroad to reform, the world and re-map the universe?

Would it not be more consistent for us to practice humanity at home and relieve the distress of our own people before we start around the globe as humanitarians, on a wild-goose chase?

Would it not be better for all concerned to stop the war in the Philipinos, and stop our foolishness in Cuba and Porto Rico, and bring home our army and navy? And, then, when the tariff is modified, abuses corrected, and the trusts abolished, hold a peace jubilee and announce to the world that we shall hereafter attend to our own affairs?

An exceedingly valuable bulletin has just been issued by the department of entomology of the State University. In it Prof. S. J. Hunter has presented in a practical way the subject of the "Honey

Bee and Its Food Plants, with Special Reference to Alfalfa." A chapter of great value is contributed by A. L. Duff, of Larned, Kans., on "One Year Among the Bees." Readers of the Kansas Farmer will recognize the name as that of the Apiary editor of the Kansas Farmer, and will need no further assurance than their acquaintance with him to satisfy them of the merit of this chapter. All interested in bees and honey should write to the University, Lawrence, Kans., for copies of the "Honey Bee."

ALFALFA, GRASSHOPPERS.

There has just appeared from the department of entomology, University of Kansas, a valuable publication entitled "Alfalfa, Grasshoppers, Bees: Their Relationship." This volume is the work of Prof. S. J. Hunter, of that department, and comprises 175 pages, and over 100 beautiful illustrations expressly prepared for this publication.

Professor Hunter has been given the direction of several quarter sections of alfalfa land, and has caused them to be disked in the spring, after frost has left the ground and before vigorous growth has set in, the ground being in suitable condition to work. The alfalfa land so worked last year produced: First crop, average, one and one-fourth tons; second crop, average, one ton per acre; while adjoining land not so treated averaged three-fourths ton first crop, and one-half ton second crop. Not only was the yield greatly increased by this method of culture, but the native grasses were also killed. The details of the manner of conducting this method of alfalfa culture are fully set forth. Farmers have been called upon to give their part of the work and benefits derived therefrom.

The Kansas Farmer has received the announcement from Mr. and Mrs. F. D. Coburn, of the marriage of their daughter, Miss Tina Louise Coburn, to Mr. Frank Davis Tomson, on Tuesday, April 11, 1899. The Kansas Farmer rarely notices marriages, but Miss Coburn has been so prominently connected with the agricultural interests of Kansas, in the capacity of assistant secretary of the State board of agriculture, that the farmers of the State feel a personal interest in her doings and happiness. Mr. Tomson, too, comes near to the readers of the Kansas Farmer on account of his connection with the paper as live stock artist and advertising solicitor. His efficiency in these lines attracted the attention of that sterling agricultural paper, the Iowa Homestead, which paper, it was found, needed his services several hundred dollars a year more than they were needed by the Kansas Farmer; so, wishing Mr. Tomson and the paper to which he went happiness and prosperity, we bade him Godspeed. Mr. Tomson soon located his headquarters at Cedar Rapids, to which pleasant city he takes his bride. May their path of life grow brighter as the years come and go.

Hog Millet is No Good for Northwest Kansas.

Editor Kansas Farmer:—I see hog millet is again recommended in your paper. I have tried it three years and failed every time, when all other millets succeeded. I secured the seed at great cost from the North, fitted my finest ground, drilled it, and it was cut at the right time, but it was so short that I could not get it raked together. German millet grew three feet in same field. I must say it is the finest-looking seed I ever saw, but it is a sure failure here. I saw fifty patches in this county in 1897 and all were failures. In 1898 ours just started up and died down, when again German millet grew two to three tons in the same field. So I say it is no use here. J. H. SAYLES.

Norcat, Kans.

Beware of Ointments for Catarrh That Contain Mercury,

as mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is ten-fold to the good you can possibly derive from them. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and is made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials free.

Sold by Druggists; price 75 cents per bottle.

We can save you money, if you want most any paper or magazine, in connection with Kansas Farmer. Write for special club list.

Horticulture.

KANSAS EXPERIENCE IN ORCHARDING.

From "The Kansas Apple."

E. M. Gray, Perry, Jefferson County: I have lived in Kansas forty years; my orchard of twenty acres has been planted twenty years. For market, I prefer Ben Davis and Jonathan on poor land, and Missouri Pippin and Winesap on rich land. For family orchard, Early Harvest, Red June, Winesap, Grimes's Golden Pippin, Missouri Pippin, and Huntsman's Favorite. Have tried and discarded Grimes's Golden Pippin, Lawver, Winesap, Missouri Pippin, and Huntsman's Favorite; they are not profitable, are too small when grown on poor land. I prefer yellow clay bottom, with an east, south or northern aspect. I prefer large, healthy, two-year-old trees, planted with a lister, subsoil plow, and spade. I cultivate my orchard to corn, small fruit, potatoes and nursery stock seven years, with a cut-away disk harrow, and cease cropping after eight years. I plant nothing in a bearing orchard. Wind-breaks are essential; would make them of Russian mulberry, Osage orange, or cedars, by planting two rows of them on the south and west sides of the orchard. For rabbits I keep a shotgun and dogs. I do not prune; don't think it beneficial. I do not thin my apples while on the tree, but think it would pay. My trees are in mixed plantings; my Ben Davis are fuller and redder planted close by Jonathan the Winesap. I do not fertilize my orchard, but think it would be beneficial, and would advise its use on all exhausted soils in old orchards. Do not pasture my orchard; would not advise it, don't think it would pay. My trees are troubled with flat-head borers, and my apples with curculio. I do not spray. I dig borers out with a knife.

Pick my apples by hand; have light-weight men climb the trees and pick in meal sacks, then lay on tables. Sort into two classes: First, perfect, well-colored, smooth, and good size; second, wormy, fair, and small size. Pack in three-bushel barrels, well rounded up; mark the variety of apples on the barrel with a stencil; haul to market on a hay-frame wagon. I sell in the orchard, wholesale, retail, and peddle; sell the best to highest bidder; sell the culls to driers or ship south or west. My best markets are where apples are scarcest. Do not dry any; it does not pay. Don't store any; I have to repack stored apples before marketing, losing about one-twelfth of them. Do not irrigate. Prices have been from \$2 to \$2.75 per barrel; dried apples, 5 cents per pound. I employ men at 75 cents per day. Apple growing in Kansas, on high prairie land, is not very profitable to the grower, unless he has a good wind-break on south and west sides of his orchard. In 1880 I planted twenty acres of apple trees of many varieties; Ben Davis and Jonathan were the only ones that paid me on high land. In 1895 I planted thirty acres to apples; fifteen acres on upland and fifteen acres on second bottom, sloping east and north. On the upland I put nothing but Ben Davis and Jonathan; on the bottom I planted Ben Davis, Missouri Pippin, Mammoth Black Twig, Gano, Winesap, and Jonathan—cross-fertilizing the Ben Davis every fifth row with the Mammoth Black Twig, Jonathan, and Winesap. I believe that cross-fertilization is beneficial to an orchard in making fruit more plentiful, larger, smoother, better color and quality. It is believed by many that Ben Davis, Jonathan and Winesap are self-fertilizers, and don't require crossing; that being the case, they should have the cross near by, in order to not decrease the species or run it out. Professor Darwin says self-fertilization is abhorrent to nature, and the same rule that applies to small fruits is equally applicable to apples. Why not?

Fruits and premium awards are my best advertisers. I have succeeded in carrying off most of the awards in every show I exhibited at, and have premiums on file to show for some. All my fruits are set for cross-fertilization, and I shall continue to set that way. Many have said and will say they see no difference; perhaps they are not close observers, and have given the subject little study. I have given the subject twenty-five years' study and experience, and think I am not mistaken. I think there is more money to be made on our high upland in pears, small fruits, and stone fruits. They pay me better than apples. The Grimes's Golden Pippin would be a

good apple to grow if the trees did not die after two or three crops. The Lawver apples fail to hang on the trees. The Missouri Pippin will not stand up on our high land unless surrounded by wind-breaks; they look here like a Kansas cyclone had passed through them—the limbs all blew off last fall. Winesaps fall off badly, and are affected with bitter rot. For trial purposes, I recommend Mammoth Black Twig, Gano, and York Imperial.

Canker-Worm Traps.

Editor Kansas Farmer:—Last spring the Department of Entomology at the Kansas State Agricultural College fastened to a number of trees Pratt's canker-worm traps in place of the ordinary carpet-paper bands. These traps are nothing more than a narrow width of the common wire screening with slits along one side so that the screening can be fastened to the trees with a flange at the lower side. By using carpet tacks of a good size, the traps can be made very firm and tight, so that there are no passage ways through which the female moths can continue their ascent up the tree. Last year the orchards in which the traps were placed were not infested to any extent by the canker-worms, so that we were not able to give the traps a good test. They caught quite a number of the moths, but did not prevent them from depositing eggs either on or just above the screening. The worms from the eggs so deposited were of course able to ascend the tree. The mesh of the wire screening does not prevent the young worms from going through. The traps are quite durable; those put on last year in but a few instances needed attention this spring; a tack here and there was all that was necessary to put the traps in good condition. They will probably last for three seasons. Where these traps of wire screening are used it is necessary to visit the traps quite often to collect and kill the female moths, and to spray once or twice with kerosene emulsion the region about and under the traps to kill the young worms, and the eggs deposited by the entrapped females. The time for spraying must be determined by the fruit grower himself.

PERCY J. PARROTT.
Kansas Experiment Station, Manhattan, Kans.

Ringed Grapes.

Editor Kansas Farmer:—This process is the removal of a small section of the bark surrounding the cane for the purpose of obstructing the downward flow of sap, which is thereby caused to accumulate in excessive quantities in the portions of the cane above the ring, and to supply these portions richly with food materials. Experiments were tried last summer to test the results of ringing on several varieties. The rings of bark were removed in the period between June 27 and July 5, when the grapes were from one-third to one-half grown. The width of the ring removed in most cases was one-half inch, but on some canes only one-fourth inch. The following notes taken at the time of ripening indicate the results on each variety:

Concord showed the fruit on the ringed canes to be slightly larger and a day or two in advance of the fruit of the rest of the vine.

Cambridge showed the fruit on the ringed canes to be larger, of better quality, and two or three days earlier than that on other canes.

Brighton showed no difference in quality or size, but three days difference in earliness.

Columbian Imperial showed very great difference in size, the berries averaged one-fifth larger on the ringed than on the unringed canes, while the ringed canes ripened fruit two weeks earlier than other canes of the same vines.

Agawain showed only a slight difference in size and earliness.

Herbert showed no difference except that the fruit on the ringed canes was poorer in quality than the rest.

Moore's Early showed no perceptible difference in size, quality or earliness.

Niagara showed the fruit on the ringed canes to be two days earlier and slightly superior in quality to that on the unringed canes.

The Delaware showed better and earlier fruit on the ringed than on the unringed canes, but showed the best fruit where only a small section of the bark had been removed.

The best results were obtained on canes where the bark overgrew the sections from which it had been removed. Where the bark overgrows the section about the time the fruit begins to ripen the surplus food material in the cane is drawn away into the lower parts of the vine and the fruit ripens with only a normal quantity of food material present. If the section is not overgrown, the excess of food remains, the fruit is forced to ripen with this excess on hand, and hence ripens improperly.

The width of the section of bark to be

\$100 Reward.

For many years we have advertised this reward for any case that Tuttle's Elixir would not cure, and also will refund your money if you are not satisfied in every possible way that your expenditure was a wise one.



What can be fairer? Could we afford to do this, or would this paper admit our advertisement unless we can do all we claim?

Tuttle's Elixir

cures curbs, splints, colic, all lameness, contracted and knotted cords, callous of all kinds, scratches, and all similar troubles.

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

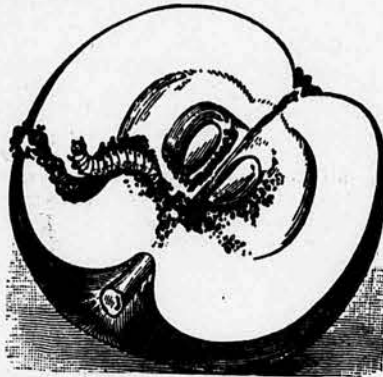
DR. S. A. TUTTLE, Sole Proprietor,
27 Beverly Street, Boston, Mass.

removed should vary according to the vigor of the cane and the variety. On strong canes of vigorous varieties three-fourths of an inch is not too much, while on feeble varieties one-fourth of an inch may be sufficient.

W. L. HALL.
Kansas State Agricultural College.

Spraying Fruit Trees.

The question of spraying fruit trees to prevent the depredations of insect pests and fungus diseases is no longer an experiment but a necessity.



Our readers will do well to write Wm. Stahl, Quincy, Ill., and get his catalogue describing twenty-one styles of Spraying Outfits and full treatise on spraying the different fruit and vegetable crops, which contains much valuable information, and may be had for the asking.

STARK BROS. have a 74-YR. Record. Fruit Book Free
STARK BROS. PAY FREIGHT
Stark, Mo. We

Forest Tree Seedlings for Sale.
Ash, Maple, Elm, Box Elder and Japan Catalpa, ranging in size from four to eighteen inches.
ROBERT W. FURNAS,
Brownville, Neb.

TREES! Apple, Peach, New Grapes, Cherry, and a full line of Fruit Trees, Grape Vines, Small Fruit Plants, Evergreens, Roses, at low prices
Address J. F. CECIL, Nurseryman,
North Topeka, Kans.

Best Corn for Kansas.

One Kansas customer says: "Your C. Y. Dent Corn is two weeks earlier than, and will make ten bushels per acre more than our native corn alongside." Twenty-six best kinds. Catalogue, two samples and proof free.
J. C. SUFFERN, Seed Grower,
Voorhies, Ill.

700,000 BERRY PLANTS FOR SALE 700,000
My stock of old and the cream of the new Strawberries for 1899 is first-class. Also Raspberries, Blackberries, Gooseberries and Pear Trees. Send for price list.
B. F. SMITH,
Box 6, Lawrence, Kans.

PEACH TREES 4 to 6 ft. at 3 1/2 cts.; 3 to 4 ft. at 2 1/2 cts.; all 1 yr. from bud, healthy and thrifty; no scale. Official certificate accompanies each shipment. Sample by express if wanted. Can ship any time. Trees kept dormant till May 10th.
R. S. JOHNSTON, Box 17, Stockley, Del.

SEND TO B. P. HANAN,
Arlington, Reno Co., Kans., for
PRICE LIST of SURPLUS NURSERY STOCK
at the Arlington Nursery, on the C., R. I. & P. R. R., 17 miles southwest of Hutchinson.

TRY EXCELSIOR
Strawberry. Immensely productive and earlier than Hoffman. A seedling of Wilson, pollenized by Hoffman, plant and fruit both showing larger other varieties. Columbia Asparagus roots; Peach, Apple and Pear trees. Write for Catalogue, etc.
Harrison's Nurseries, Berlin, Md.

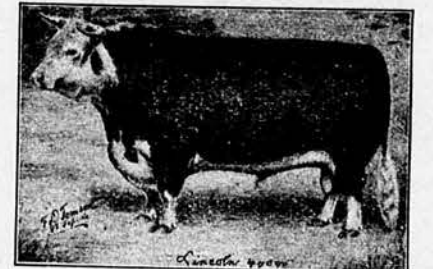
PRICES THAT TALK.

Choice Re-cleaned Clover Seed, \$3.90 per bushel.
Choice Re-cleaned Timothy, \$1.20 per bushel.
German Millet, choice, 80c per bushel.
Choice Re-cleaned Cane Seed, \$1.20 per 100 pounds.
Bags, 15c each.
Dwarf Essex Rape, 15c per pound.
Artichokes, choice variety, 50c per bushel.
Potatoes, choice Red River Ohio, \$1.15 per bushel.
Seed Corn, Golden Cap, \$1 per bushel.
Other best varieties. Address

A. A. BERRY SEED CO.,
Drawer L. Clarinda, Iowa.

CLOVER CLIFF FARM.

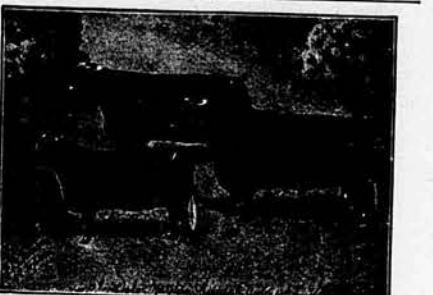
Registered Galloway Cattle. Also German Coach, Saddle and Trotting-bred horses. World's Fair prize Oldenburg Coach stallion, Habbo, and the saddle stallion, Rosewood, a 16-hand, 1,100-pound son of Montrose, in service. Visitors always welcome. Address
BLACKSHERE BROS., Elmdale, Chase Co., Kas.



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



CEDAR HILL FARM.
Golden Knight 108086 by Craven Knight, out of Norton's Gold Drop, and Baron Ury 2d by Godoy, out of Mysie 50th, head the herd, which is composed of the leading families. Young bulls of fine quality for sale; also offer a choice lot of grade bull and heifer Shorthorn spring calves.
C. W. TAYLOR,
PEARL, DICKINSON CO., KANS.

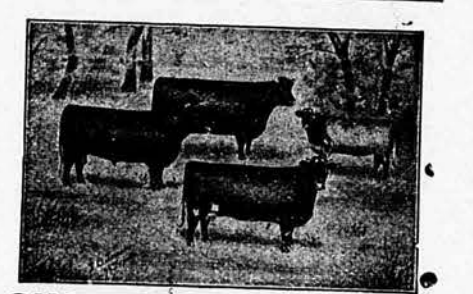


GLENDAL SHORTHORNS, Ottawa, Kans.
Leading Scotch and Scotch-topped American families compose the herd, headed by the Cruickshank bulls, Glendon 119370, by Ambassador, dam Galanthus, and Scotland's Charm 127264, by Imp. Lavender Lad, dam by Imp. Baron Cruickshank. Young bulls for sale.
C. F. WOLF & SON, Proprietors.

ELDER LAWN HERD OF SHORTHORNS.



THE HARRIS-BRED BULL, GALLANT KNIGHT 124466, a son of Gallant, out of 8th Linwood Golden Drop, heads herd. Females by the Cruickshank bulls, Imp. Thistle Top 83876, Earl of Gloster 74523, etc. Size, color, constitution and feeding qualities the standard. A few good cows for sale now bred to Gallant Knight. Address
T. K. TOMSON & SONS, DOVER, KANS.



SHORTHORN CATTLE.
I have combined with my herd the Chambers Shorthorns and have the very best blood lines of the Bates and Cruickshank families. Herd headed by Baron Flower 114352 and Kirklevington Duke of Shannon Hill 126104. The Cruickshank Ambassador 110811 lately in service.
Best of shipping facilities on the A. T. & S. F. and two branches of the Missouri Pacific Railways. Parties met by appointment.
B. W. GOWDY, GARNETT, KANS.

CANDY CATHARTIC
Cascarets
REGULATE THE LIVER

365 Days a Year.

Some men who keep cows declare the price of a cream separator to be too high. Did you ever stop to think that you pay as much or more for a twine binder and only use it three or four days in a year? A Safety Hand Separator only costs \$100 and is used with profit every day in the year. Look into this matter. Send for Catalogue No. 19. It's free.



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

In the Dairy.

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

How to Raise the Dairy Calf on Skim-milk.

February 16, the Agricultural College became the owner of the first Guernsey calf ever born on the college farm. This heifer calf weighed 81 pounds at birth, was sired by Campbell's King 4951 and out of a scrub cow purchased in Lincoln County, Kansas. The same morning the members of the dairy class were informed concerning the new arrival and each one asked to prepare an essay on the way this calf should be handled from an economical standpoint to make a good dairy cow. From a number of very good essays the following has been selected as the best, and was written by Mr. J. A. Reh:

"One of the cows at the college farm dropped a half-blood Guernsey heifer calf, the first one of that breed born on the farm. The question arises whether we can raise this calf on skim-milk and make a dairy cow of it, and, if so, how will we proceed to do it?"

"The calf may be left with the cow four or five days. The colostrum, or first milk, is needed as the first food for the calf. It is not difficult to teach the calf to drink, even when it has been with the cow for a week, if it is allowed to get quite hungry before the first feed is offered. Whole milk should be fed at least three times a day, beginning with not over ten pounds, and ending with fifteen pounds daily. When it is two weeks old a small quantity of skim-milk may be added to the whole milk and gradually increased until, by the time it is three or four weeks old, skim-milk only is fed.

"By this time it will have learned to nibble a little hay and chop, which, if provided fresh daily, soon will be taken liberally. Allow no more grain in the feed-box than will be wholly consumed between feeds. The milk given to the calf should always be sweet and warm, from 90° to 100° F. If creamery skim-milk is fed it is better to have it pasteurized. Skim-milk is very much improved by the addition of a little flax seed jelly, made by pouring boiling water on a quantity of flax seed and covering the vessel and allowing it to stand for twenty-four hours. A tablespoonful may be added at first and gradually increased to half a pound a day. The pail the calves are fed from should always be kept clean and frequently scalded to remove sour and putrid particles.

"It sometimes occurs that a calf's digestive organs become deranged. If it shows in costiveness, the milk should be given cooler, but if too loose, at a higher temper-

ature and in smaller quantities. To the decreased quantity two raw eggs may be added, or the eggs may be given alone night and morning. It is not well to resort to medicine too hastily, as the hot milk in small quantities rarely fails. Where several calves are fed together they should be tied, as that makes feeding more convenient and prevents their sucking each others' ears.

The calf should be taught to eat grain by placing a handful of ground oats, shorts or other feed in its mouth immediately after supplying the milk. A calf intended for a model dairy cow should not gain over one and one-half pounds per day for the first four months, and less thereafter. After the calf is five months old the milk may be entirely withdrawn, if the vigor of the calf will warrant it, if not, it should be continued another month. The ration of the skim-milk should never exceed twenty-four pounds daily.

"Timothy hay and corn are not the right kind of food for the dairy calf; they are too fattening. Alfalfa or clover, silage and a little straw should constitute the roughage. Bran, barley and oats are excellent for the small allowance of grain required. It should have plenty of exercise and free access to pure water and salt.

"The object of the method of feeding outlined above is, first, to reduce the cost of raising the calf as compared with whole milk, and, in the second place, we desire to develop our heifers into good dairy cows. For the latter purpose we should aim to give bulky foods which will develop the digestive organs, yet, at the same time, keep the calf growing and thriving without tendency to become fat."

The Skim-milk Calf.

Paper by J. R. Marshall, read before Farmers' Institute, Boyle, Kans., December 1, 1898.

In raising a skim-milk calf, let it run with its mother until her milk is good. Then take it away and feed it the milk right from its mother until the calf is about 2 weeks old. Then commence to mix skim-milk with the whole milk until the calf is about 4 or 5 weeks old, then feed it all skim-milk. If in changing the milk the calf should become sick, break a raw egg in its milk. It may be necessary to do this for two or three days. The vessel that the calf is fed from should be shallow and we should keep putting in the milk. This prevents the calf from getting too much milk at once. When the calves are young they should be fed three quarts daily, but fed three times a day. As they grow older it can be increased to four or five quarts, fed twice a day. The milk should always be warm and sweet. The calves should be put in stanchions, so as to keep them from spilling their milk and from being disagreeable to their feeder, and from sucking their ears or butting each other about.

They should be fed oats and shelled corn twice a day and they should have all the hay or fodder that they can eat, if it be winter; if summer, they should have good pasture. They should have a good, warm place to sleep and be out of the storm and cold in cold and stormy weather.

The place where the calves are kept should have plenty of windows to let in light and sunshine.

Cleanliness in the Dairy.

By A. L. Smith, dairy student, 1899, Kansas Agricultural College.

Some one has said, "Cleanliness is next to godliness." This may be true, especially with us farmers who are engaged in dairying. We, as dairymen, wish to realize the greatest income possible from our dairy stock and produce, and, to do this, requires a great deal of care.

Milk is a great medium for the growth and development of bacterial germs; but in order for these germs to develop, the temperature of the milk must be kept between 50° and 100°. They thrive best at 75° to 90°. Most of them are killed at 155°, and below 50° their growth is checked.

It has been proven that cases of typhoid fever originated from germs transmitted from a well (where the dairyman simply rinsed his cans), through the milk to the customer. Milk is almost entirely free from germs while it is in the healthy udder of the cow, but as soon as dirt and dust are allowed to get into the milk while milking and handling the milk, if the temperature is right, these microscopic plants will grow as fast as toadstools on a moist, warm summer night, and will sour the milk in a very few hours.

How is all this brought about? Simply by mistakes. Some of us may milk immediately after feeding, while the dust from the hay and straw is circulating through the air, each mote carrying a load of bacteria. Others, perhaps, merely rinse their utensils with cold water, thus having germs to begin with, and others probably have poor places to keep their milk until ready for use.

Now, how shall we remedy these mistakes? A great improvement can be made

ALL ABOUT CREAM SEPARATORS

Why the improved and patent protected "Alpha" disc machines are as much superior to the older types of separators first made by the De Laval Company and now by several imitators as are such older pattern machines to gravity setting.

Send for new March, 1899 De Laval catalogue.

THE DE LAVAL SEPARATOR CO.

Western Offices:
RANDOLPH & CANAL STS.
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GENERAL OFFICES:
74 CORTLANDT STREET,
NEW YORK.

Branch Offices:
1102 ARCH STREET,
PHILADELPHIA.

at least by putting into practice one word, "cleanliness." Suppose we do as some one has suggested, and reverse things—feed after milking; use a damp cloth on the cow's udder; milk in a clean, sweet stable; wear clean overalls while handling the milk; use utensils that have been thoroughly cleaned and scalded; then keep the milk in a clean, cool place. Would not this plan slight the bacteria by the thousands? Swift said, "Cleanliness from head to heel." Would not this be a good motto for the dairyman?

Feed Versus Test.

Mr. L. N. M., Fulton, Kans., writes: "Reading your article on 'Alfalfa vs. Millet for Milk,' I notice that alfalfa milk tests .5 per cent higher than the millet milk. I have been preaching to my patrons that butter fat could not be fed into milk. Is the theory exploded, or how shall I explain this to them?"

Because Mr. Carlson's milk tested 4.6 while feeding alfalfa and only 4.1 while feeding millet, it does not necessarily follow that this variation is due to the quality of the feed. Any change in surroundings, feed, care, etc., is likely to produce a variation in the per cent of butter fat. Just a year ago this month, the Agricultural College purchased twelve cows from Lincoln County, Kansas, and, in order to observe the variation in quantity and quality of the milk caused by the change of surroundings, feed, etc., we kept an accurate account of the weight and test of each cow's milkings for twelve days. One cow's milk tested 1.5 per cent for the first milking and 11.1 per cent for the sixth milking, a difference of 9.6 per cent. What was true of this cow was true to a greater or less extent of all the cows purchased, and we found that it was from a week to ten days before they returned to normal.

While it is true that fat can not be fed into milk under normal conditions, it is, nevertheless, possible to feed fat out of milk for a short time by a poor quality of feed. Having thus reduced the quality of the milk by poor feeding, it would then be possible to get it back to normal by good feeding; but when it reaches normal it will be practically impossible to permanently increase the per cent of butter fat, although fluctuations may occur, due to external causes.

So the variation in Mr. Carlson's test may be due to one or several causes, as the simple changing from one feed to another; the changing from a good feed to a poor feed, causing the milk to be below normal; or to some external cause of which we have no knowledge. Of course, we must realize that it is impossible to account for all the variations that take place in the quality of the milk. There are some things we have to take as facts, without being able to explain them. In this case the facts were revealed by the scales and the Babcock test at the creamery. The explanation of these facts may be given above, or it may be due to certain conditions that we are unable to explain with our present knowledge.

D. H. O.

A Word for the Dairy School.

Ed H. Webster writes from Manhattan to the Yates Center News:

"If there is a young man in Woodson County who expects to enter farming as his life occupation, he can begin no better than by saving up \$50 between now and the first of January next, and then come here to the college and take either the creamery patrons' course, or the home dairy course. Each course is three months in length and is entirely free to all, board and books being the only cost. The new dairy school will be equipped with the best and latest apparatus for both creamery butter-making and home butter-making, and factory cheese-making. Expert instructors will be employed in every line, and the value derived from taking such a course will be well worth the time and cost to any young man, or older man either, who is going to stay by the farm."

Wants Kansas Butter.

A Los Angeles wholesale firm has written Secretary Coburn for a list of Kansas creameries. "On account of the drought in California," the letter states, "I must look elsewhere for butter, and I hear good reports of the product in Kansas." Secretary Coburn complied with the request.

The Red Polled Record, a paper published at Maquoketa, Iowa, in the interests of the Red Polled cattle, prints press bulletin No. 29, of the Kansas Experiment Station, on "Milking Scrub Cows," and at the close of the article offers the following query: "Wouldn't this be a good herd to go to to get some bull calves and some in-calf heifers to improve a herd of dairy Red Polls?"

CYCLONE FENCE MACHINE
Builds 100,000 ft of strongest fence a day, 27 to 30 inches high. 7 to 12 cables. Easy to Build and Cheap. Thousands in use. Fence material at wholesale prices. Write for catalog.
CYCLONE FENCE CO., HOLLY, MICH.
Branches: Waukegan, Ill. Cleveland, Ohio. Toronto, Can. Melbourne, Australia.

Do You Want Any More Proof? of the merits of our **HAND Cultivator**
Well we have hundreds of letters just as good as this:
Gentlemen: The Cultivator came to hand a few days ago and I am delighted with it.
Rev. H. T. CUMMINGS, Carrollton, Miss.
Send \$1.25 for sample delivered. Agents wanted.
ULRICH MFG. CO., 46 River St., Rock Falls, Ill.

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

A GOOD SEPARATOR.

Any Separator is better than the old way of making butter. But why not have the very best? They cost no more than the other kind.

The Empire Cream Separators

excel all others for close skimming and ease of running.

We guarantee them to fulfill every claim we make and give perfect satisfaction to every purchaser or your money back. Send for catalogue of the largest line of hand separators in America.

Agents wanted.

U. S. Butter Extractor Co.,
Newark, N. J.

WHAT THE PRESIDENT SAYS ABOUT THE IMPROVED U. S. SEPARATOR.



BRATTLEBORO, VT., Feb. 27th, 1899.
It gives me pleasure to say that the dairy machinery bought of your company two years ago, including a No. 5 Improved U. S. Separator and a Pony Power, is working well and giving entire satisfaction.

The Improved U. S. Separator is doing all and even more than was claimed by your agent. The separation is perfect, it runs easily, without noise or friction, and it is easy to manage and care for. Of all the separators placed upon the market, there is none that excels the Improved U. S. in my opinion.

G. W. PIERCE, President Vt. Dairymen's Ass'n.

Write for our latest Illustrated Catalogues.
VERMONT FARM MACHINE COMPANY,
Bellows Falls, Vt.

Publishers' Paragraphs.

PROSPERITY.—Greater prosperity for the farmers is the mission of the McCormick. Speed at harvest time is all important. Prompt saving of crops means money in the farmer's pocket. Delay means loss, speed means profit. Buy the McCormick and you will get your full money's worth. McCormick sets the standard in Binders, Mowers, Reapers, Corn Harvesters, Rakes and Shredders.

Quick haying machines are a necessity of the busy farmer, and in response to the needs of the hour the Keystone Manufacturing Co., Sterling, Ill., is now advertising its famous Keystone Side-Delivery Rake as one that will handle alfalfa, the great Kansas crop. It rakes clean and fast and makes a straight and continuous windrow any size desired, and leaves the hay in the best possible shape for loading on the wagon. By using the Keystone rake you are sure to have bright green hay. It is just the rake for Kansas.

EXPANSION.—Expansion is a word much in use. It is a word which expresses the new political atmosphere. Breathing this new political atmosphere, men argue and parties divide, but there is neither arguing or division about one kind of expansion which has been going along in agricultural circles for nearly seventy years. It is the greatest expansion for their benefit which the farmers have ever known. It is the expansion of the sales of the McCormick. Last season the McCormick Company built and sold 189,760 machines. This kind of expansion dwarfs every other achievement American history records in favor of the well-being of the farmers. Buy McCormick machines and you get your money's worth.

BUYING FOR CASH.—The advantages of the cash-buying principle are much more highly appreciated than formerly. Present indications point to the fact that at no very distant date the long-drawn-out, interest-bearing account will be a thing of the past. Cash buying is a business short cut, it is the little path that leads across the fields. It saves business distance. Not only that, it is a money-making principle. Buying for cash saves interest; interest—money—saved is money earned. Cash selling and buying has gradually led up to another method of conducting business, which is to sell direct from the manufacturer to the consumer. This system possesses so many advantages that we can not stop to enumerate them here. It is really the carrying out of the cash-buying plan upon an extended and enlarged form. Goods are sent upon receipt of cash or are shipped C. O. D. with privilege of examination. Take, for instance, the Elkhart Carriage and Harness Mfg. Co., of Elkhart, Ind. They sell everything they make direct from the factory to the consumer. Their terms are either cash with order or C. O. D. with fullest privilege of examination, and their experience is that the cash-buying principle is growing upon the people. By far the greatest percentage of their orders contain cash remittance. This is very complimentary to the Elkhart people and their fair business methods. They are undoubtedly the largest manufacturers of vehicles and harness in the world selling direct to the consumer.

A SKILLFUL SURGEON.—Of all Kansas City's most prominent men there are none that have a wider acquaintance than has Dr. C. M. Coe. His profession for the last several years has brought him in contact with thousands of patients from all parts of the country. Dr. Coe's practice is different from the ordinary specialist, as he conducts a thoroughly equipped sanitarium for the treatment of all forms of diseases. The doctor has no panaceas or special magnetic powers whereby he makes the lame walk, the deaf hear, or the blind see, but is a graduate of one of the best medical schools in the country, and his experience while house surgeon of Cook County Hospital, in Chicago, gave him the idea that most diseases can be better treated in a sanitarium where the surgeon has the advantage of a corps of assistants, with trained nurses, and the advantage of a home for his patients. Dr. Coe established his sanitarium in Kansas City many years ago and during those years has performed some of the most successful surgical operations known to science. Among others may be mentioned the successful operation of removing a forty-eight pound tumor from Mrs. L. B. Bettis, of Kiowa, Kans., the largest of the kind ever successfully removed by a surgeon. And a very serious and difficult operation was that performed on a cancerous growth of the womb in the case of Mrs. Paul Handel, of Pawnee City, Neb. Mrs. Handel had suffered for years and was given up to die, and was brought to the sanitarium in a helpless and critical condition. The cancer was of long standing, but Dr. Coe performed an operation, and now Mrs. Handel is a strong, healthy woman and will be glad to answer any letters you may write pertaining to her case.

If you are interested in the welfare of your health, or the health of your family or friends, and are thinking of going abroad for treatment, write to Dr. C. M. Coe, Kansas City, Mo., and get particulars concerning his sanitarium, together with an opinion of your case, which will be cheerfully given.

The Caves of the Ruskin Colonists.

The unique socialistic and co-operative colony of Ruskin, which has been recently organized in the backwoods of middle Tennessee, about six miles from Tennessee City, owns, among other attractions, some great natural wonders in the way of huge caves, which are not only exceedingly curious and picturesque, but useful as well, as since their discovery a few months ago they have been utilized by the colonists as a canning and vinegar factory and a storehouse for canned fruits and their large celery crop, the uniformly cool temperature of the cave preserving the celery perfectly for months, thus enabling the Ruskinites to bring it forth in the spring fresh and delicious.

Imagine a railroad depot with solid rock arched roof and walls about 500 feet long by 60 feet wide, well lighted, for the entrance is high and wide enough for half a dozen teams to drive in abreast, and some slight conception can be gained of the appearance of Ruskin's largest cave. In the center is a little crystal lake, about fifty feet in diameter, with water so clear that you can see the stones plainly on the bottom thirty-five feet below, for that is its depth.

This is the basin of a subterranean spring, from which the water flows in a comparatively large stream perpetually, and which has been guided down a wooden flume by the colonists to an overshot wheel, furnishing power to a pump that forces the water to the top of the great limestone bluff in which this cave is found, 200 feet above. Here is a great Portland cement cistern, holding 1,300 barrels, connected by pipes to the printery of the colony, that would enable them to flood the building in about three minutes in case of fire.

There are various passages from the main cave. One of them, after going about one-eighth of a mile, opens into another cave even larger than the first. These caves have never been fully explored, but a tramway has been built some distance toward the second cave, and ample facilities have been found for the storing of celery, gladioli, cape bulbs, and other rare plants. The atmosphere in these caves is remarkably dry and pure.—Chicago Times-Herald.

Mrs. Spanker—Oh, my dear Mrs. Malaprop, how do you do? Am I to congratulate you upon your son's reported engagement to Miss Moneybags?

Mrs. Malaprop—Yes, thank you, it's true. She is his finance now.—New York Journal.

Stealing tombstones is a very contemptible business. An enterprising gentleman in Pine Bluff, Ark., is in jail for engaging in this avocation. It has been his habit to obliterate the old mortuary records, sell the stones to new patrons, and chisel new records upon them.

In China hens are employed to hatch fish eggs. These are sealed in an eggshell and placed under the unsuspecting hen for a few days until the spawn has warmed into life. The contents of the shell are then emptied into a shallow pool, where they can bask in the sunshine until the minnows are strong enough to be turned into a lake or river.—Cincinnati Enquirer.

THE STRAY LIST.

FOR WEEK ENDING APRIL 6, 1899.

Reno County—W. S. Yeager, Clerk.

PONY—Taken up by A. I. Swen in Valley tp. (P. O. Burdett), February 25, 1898, one bay pony mare, weight 750 pounds, diamond on left shoulder: valued at \$15.

Pottawatomie County—A. P. Scritchfield, Clerk. STEER—Taken up by F. Eisenbeis in Clear Creek tp. (P. O. Blaine), March 2, 1899, one roan steer, four feet high, piece cut out under both ears, and "J" branded on left hip; valued at \$15.

FOR WEEK ENDING APRIL 13, 1899.

Lyon County—H. E. Peach, Clerk.

MARE—Taken up by E. E. Williams in Americus tp. (P. O. Emporia), one light bay mare, white left hind foot, white in forehead.

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IS THE STANDARD
STEAM PUMPS AIR LIFTS
GASOLINE ENGINES
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TWO NEW MILLETS FROM DAKOTA.

NEW SIBERIAN AND DAKOTA HOG MILLET.

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THE NAT'L HEN INCUBATOR beats the old plan 3 to 1. 100-Egg Hatcher \$2. Cheap in price but a mighty money maker. Send for cat'g telling how to get one free. Agents wanted.
Natural Hen Incubator Co., 183, Columbus Neb.

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Eggs, \$1.00 Per Fifteen.
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LIVE STOCK AUCTIONEERS.

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

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LIVE STOCK AUCTIONEER, LAWRENCE, KANS. 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.

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...VIA **BIG FOUR ROUTE,**
FROM ST. LOUIS TO...
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SOUTHWEST SYSTEM

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Five (5) Daily passenger trains are run on the main line in each direction between Kansas City and St. Louis.
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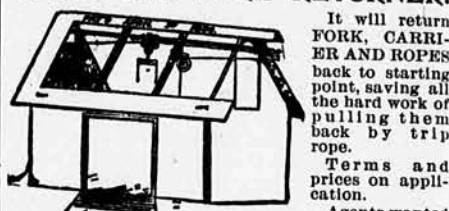
And particulars how to secure 160 acres of the best wheat-growing land on the continent, can be secured on application to the Superintendent of Immigration, Ottawa, Canada, or to the undersigned.

Specially conducted excursions will leave St. Paul, Minn., on the first and third Wednesdays in each month, and specially low rates on all lines of railway are being quoted for excursion leaving St. Paul on April 5 for Manitoba, Assiniboia, Alberta and Saskatchewan.

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and save time, labor and money. INCREASE YOUR DAIRY PRODUCTS in both quantity and quality. The "SHELDON" will do it—is doing it for others—if it don't you needn't pay for it. Sold on

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PROF. S. W. AXTELL,

200 W. 3d St., Sedalia, Mo.



MARKET REPORTS.

Kansas City Live Stock.

Kansas City, April 17.—Cattle—Receipts since Saturday, 85; calves, 4,371; shipped Saturday, 299 cattle; 51 calves. The market was strong to a shade higher. The following are representative sales:

DRESSED BEEF AND SHIPPING STEERS.			
No.	Ave. Price.	No.	Ave. Price.
21.....	1,213 45.15	8.....	1,350 45.00
20.....	1,307 4.90	80.....	1,240 4.80
61.....	1,172 4.75	3.....	1,158 4.70
30.....	1,170 4.65	23 mix.....	1,140 4.60

WESTERN STEERS.			
No.	Ave. Price.	No.	Ave. Price.
39.....	1,325 4.85	80.....	1,240 4.80
106.....	1,104 4.55	21.....	1,052 4.30
59.....	838 4.25	29.....	1,026 4.15
39.....	839 4.07 1/2	1.....	630 3.50

NATIVE HEIFERS.			
No.	Ave. Price.	No.	Ave. Price.
11.....	672 4.50	1.....	710 4.25
1.....	1,020 4.15	15.....	1,052 4.00
1.....	700 3.85	1.....	930 3.75
20.....	795 3.65	2.....	505 3.50

NATIVE COWS.			
No.	Ave. Price.	No.	Ave. Price.
1.....	1,290 4.25	6.....	1,228 4.00
6.....	1,258 3.75	6.....	1,050 3.50
2.....	1,030 3.10	1.....	1,010 2.75
1.....	970 2.50	1.....	840 2.25

NATIVE FEEDERS.			
No.	Ave. Price.	No.	Ave. Price.
1.....	1,060 4.60	2.....	965 4.60
12.....	1,247 4.55	62.....	932 4.40
1.....	1,050 4.40	7.....	950 4.25
37.....	905 4.20		

NATIVE STOCKERS.			
No.	Ave. Price.	No.	Ave. Price.
20.....	521 5.25	34.....	705 5.10
1.....	550 4.85	29.....	768 4.75
2.....	540 4.50	1.....	450 4.20
2.....	645 4.00	1 J.....	700 3.60

Hogs—Receipts since Saturday, 6,950; shipped Saturday, 1,033. The market was strong to a shade higher. The following are representative sales:

70...291 3.80	56...333 3.80	56...350 3.80
69...294 3.80	68...266 3.80	54...364 3.80
71...240 3.77 1/2	39...253 3.77 1/2	75...258 3.77 1/2
81...275 3.75	71...278 3.75	75...258 3.77 1/2
77...232 3.72 1/2	78...226 3.72 1/2	67...240 3.74 1/2
80...216 3.71	65...234 3.70	75...231 3.71
47...233 3.67 1/2	74...232 3.67 1/2	79...215 3.67 1/2
54...284 3.67 1/2	16...187 3.67 1/2	100...191 3.67 1/2
59...213 3.67 1/2	92...234 3.67 1/2	71...227 3.61
55...229 3.65	92...234 3.65	47...258 3.65
70...203 3.65	75...224 3.63 1/2	71...218 3.63 1/2
82...172 3.62 1/2	51...201 3.61	97...183 3.60
59...165 3.60	114...159 3.60	18...241 3.57 1/2
78...184 3.55	2...185 3.55	83...203 3.55
17...132 3.25	2...360 3.25	11...130 3.25
19...110 3.15	2...155 3.10	1...530 3.00
4...87 3.00	1...190 3.00	1...330 3.00
35...130 3.00	5...250 2.85	1...60 2.75

Sheep—Receipts since Saturday, 6,340; shipped Saturday, 937. The market was active and steady. The following are representative sales:

197 N.M.lbs. 72...15.50	373 N.M.lbs. 63...15.25
393 Col.lbs. 64...5.15	53 N.M.yrl. 80...5.10
230 W.lbs. 61...4.90	102 N.M.sh. 97...4.70
26 nat.m.x. 85...4.05	12 nat.m.x. 80...4.05

St. Louis Live Stock.

St. Louis, April 17.—Cattle—Receipts, 2,870; market steady to strong; shipping steers, 14.00 @ 15.75; light steers to dressed beef grades, 3.50 @ 5.25; stockers and feeders, 3.25 @ 4.75; cows and heifers, 2.25 @ 4.75; Texas and Indian steers, 3.50 @ 5.00; cows and heifers, 2.50 @ 3.75.

Hogs—Receipts, 6,500; market 5 to 10c higher; pigs and lights, 3.70 @ 3.85; packers, 3.75 @ 3.95; butchers, 3.90 @ 4.07 1/2.

Sheep—Receipts, 100; market strong; native muttons, 3.50 @ 5.00; lambs, 4.75 @ 5.50; springs, 5.70 @ 6.50.

Chicago Live Stock.

Chicago, April 17.—Cattle—Receipts, 11,500; market steady; choice fat cattle and handy light weights stronger; beefs, 4.00 @ 5.75; cows and heifers, 1.75 @ 4.90; Texas steers, 4.00 @ 4.80; stockers and feeders, 3.50 @ 5.00.

Hogs—Receipts, 26,000; market strong to about steady; mixed and butchers, 3.65 @ 3.97 1/2; good heavy, 3.80 @ 4.00; rough heavy, 3.65 @ 3.75; light, 3.65 @ 3.90.

Sheep—Receipts, 18,000; market steady; sheep, 3.25 @ 5.00; lambs, 4.25 @ 5.85.

Chicago Grain and Provisions.

	April 17.	Opened	High'st	Low'st	Closing
Wht.—May....	73 1/2	73 1/2	72 1/2	73 1/2	73 1/2
July.....	74	74 1/2	73 1/2	74 1/2	74 1/2
Sept.....	75 1/2	75 1/2	74 1/2	75 1/2	75 1/2
Corn—May....	35 1/2	35 1/2	34 1/2	35 1/2	35 1/2
July.....	36 1/2	36 1/2	35 1/2	36 1/2	36 1/2
Sept.....	37 1/2	37 1/2	36 1/2	37 1/2	37 1/2
Oats—May....	26 1/2	26 1/2	25 1/2	26 1/2	26 1/2
July.....	27 1/2	27 1/2	26 1/2	27 1/2	27 1/2
Pork—May....	9 07 1/2	9 10	8 97 1/2	9 00	9 00
July.....	9 22 1/2	9 25	9 15	9 17 1/2	9 17 1/2
Sept.....	9 37 1/2	9 37 1/2	9 27 1/2	9 31	9 31
Lard—May....	5 22 1/2	5 20	5 17 1/2	5 17 1/2	5 17 1/2
July.....	5 32 1/2	5 35	5 30	5 31	5 31
Sept.....	5 45	5 45	5 42 1/2	5 42 1/2	5 42 1/2
Ribs—May....	4 70	4 70	4 67 1/2	4 67 1/2	4 67 1/2
July.....	4 85	4 85	4 80	4 85	4 85

Kansas City Grain.

Kansas City, April 17.—Wheat—Receipts here to-day were 53 cars; a week ago, 80 cars; a year ago, 90 cars. Sales by sample on track: Hard, No. 2, 60 @ 68c; No. 3 hard, 64 @ 66 1/2c; No. 4 hard, 60 1/2 @ 65c; rejected hard, nominally 57 @ 59 1/2c. Soft, No. 2 red, 80c; No. 3 red, 78c; No. 4 red, 72c; rejected red, 60 @ 63c. Spring, No. 2, nominally 65 @ 67c; No. 3 spring, 62 1/2 @ 65c.

Corn—Receipts here to-day were 32 cars; a week ago, 61 cars; a year ago, 66 cars. Sales by sample on track: Mixed, No. 2, 33c; No. 3 mixed, 32 1/2 @ 33c; No. 4 mixed, nominally 32c; no grade, nominally 31 1/2c. White, No. 2, nominally 33 1/2c; No. 3 white, 33 @ 33 1/2c; No. 4 white, nominally 32 1/2c.

Oats—Receipts here to-day were 7 cars; a week ago, 4 cars; a year ago, 9 cars. Sales by sample on track: Mixed, No. 2, nominally 29 1/2c; No. 3 mixed, 28 1/2c; No. 4 mixed, nominally 27 @ 27 1/2c. White, No. 2, 31 @ 31 1/2c; No. 3 white, 31c; No. 4 white, nominally 29c.

Rye—No. 2, nominally 52c; No. 3, 51c; No. 4, nominally 50c.

Hay—Receipts here to-day were 69 cars; a week ago, 31 cars; a year ago, 41 cars. Quotations are: Choice prairie, \$7.50 @ \$8.00; No. 1, \$7.00 @ \$7.50. Timothy, choice, \$8.50 @ \$9.00. Clover, pure, \$6.75 @ \$7.50. Alfalfa, \$7.00 @ \$8.00.

Chicago Cash Grain.

Chicago, April 17.—Wheat—Cash, No. 2 red, 75 @ 77 1/2c; No. 3 red, 71 1/2 @ 74c; No. 2 hard winter, 68 @ 69c; No. 3 hard winter, 67 @ 68c; No. 1 northern spring, 72 1/2 @ 73 1/2c; No. 2 northern

spring, 71 1/2 @ 73 1/2c; No. 3 northern spring, 67 @ 71 1/2c.

Corn—Cash, No. 2, 35 1/2c; No. 3, 34c. Oats—Cash, No. 2, 27 1/2 @ 28c; No. 3, 27c.

St. Louis Cash Grain.

St. Louis, April 17.—Wheat—Cash, No. 2 red, elevator, 77 1/2c; track, 78 1/2c; No. 2 hard, 70 1/2 @ 71c.

Corn—Cash, No. 2, 34 1/2c; track, 35 1/2c. Oats—Cash, No. 2, 28 1/2c; track, 29c; No. 2 white, 30 1/2 @ 31c.

Kansas City Produce.

Kansas City, April 17.—Eggs—Strictly fresh, 12c per doz.

Butter—Extra fancy separator, 19c; firsts, 18c; seconds, 14c; dairy fancy, 15c; country roll, 11 @ 12 1/2c; store packed, 11 @ 12c; packing stock, 9 @ 11c.

Poultry—Hens, 8c; springs, 10c; old roosters, 15c each; young roosters, 20c; ducks, 8c; geese, 6c; turkeys, hens, 10c; young toms, 9c; old toms, 9c; pigeons, 75c per doz.

Vegetables—Navy beans, \$1.35 per bu. Lima beans, 4 1/2c per lb. Onions, red globe, \$1.00 per bu.; white globe, \$1.00 per bu. Beets, northern, \$3.00 per bbl. Turnips, home grown, 15 @ 25c per bu. Lettuce, home grown, \$1.25 @ 1.40 per bu. Pleplant, 50c per doz bunches. Parsnips, 35 @ 75c per bu. Spinach, home grown, \$1.00 @ 1.25 per bu.

Potatoes—Home grown, 6 @ 65c per bu. Sweet potatoes, 50 @ 60c per bu.

Rocky Hill Shorthorns.

At Newman, Jefferson County, Kans. Straight and Cross-Bred Bates and Cruikshanks. Five yearling bulls for sale. Send for catalogue.

J. F. TRUE & SON.

Geo. Groenmiller & Son,

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

POLAND BREEDERS
CHINA...
can secure a sample pair of our
Famous O.L.C. Hogs
ON TIME, and agency if they will
write at once. 2 weighed 2800 lbs.
L. B. SILVER CO.
179 Summit Street, Cleveland, Ohio.

RIVERSIDE STOCK FARM.

Percheron and Roadster Horses and Shetland Ponies; also one Denmark Saddle Stallion; also Shorthorn Cattle. Stock of each class for sale.

Also a car-load of young Shorthorn bulls for sale. Pedigrees guaranteed. Address

O. L. THISLER, Chapman, Kas.

D. P. NORTON,
Breeder of Registered Shorthorns,
DUNLAP, KANSAS.

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

SILVER CREEK HERD
SHORT-HORN CATTLE.

Scotch and Scotch-topped, with the richly-bred Cruikshank bulls, Champion's Best 114671 and Gwendoline's Prince 130913, in service. Also high-class **DUROC-JERSEY SWINE**. Can ship on Santa Fe, Frisco and Missouri Pacific railroads.

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The cheapest source of Protein for a Balanced Ration.

Will produce richer milk and more of it; a more rapid growth and development of Cattle and Hogs, and better meat for market purposes than any other feed on the market. Highly recommended by Prof. H. M. Cottrell, of Manhattan Agricultural College. For information and prices address

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Buy your Corrugated Iron roofing, steel roofing, metal shingles, etc., before the advance in price. CHEAPER THAN SHINGLES, easier put on, last longer. How to order and how to use, estimates of cost, etc., contained in our catalogue No. 8 to all who enclose 2c for postage. Tells all about **DONKEY PAINT**, rust proof, for metal, wood or felt. Mention this paper.

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KANSAS CITY, Mo.

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We are the Largest
Wool Commission House in the West.
We have the most extensive and best lighted lofts. We have the best facilities for handling and showing stocks of wool.
The manufacturer seeking a quantity of wool for any purpose comes to us because he knows we can supply him any grade of wool in any quantity he may desire.
We handle 15,000,000 lbs. of Wool per Year,
and never peddle a pound of it on the street. We need not seek buyers;
THE BUYERS COME TO US.
All these things are to the advantage of people who consign wool to us.
We Make Liberal Advances on Consignments,
and charge at the low rate of 5 per cent. per annum on same. We furnish sacks and sewing twine free to all who consign to us. We mail you **FREE, OUR CIRCULAR LETTER**, which keeps you fully informed on the wool situation. Let us know where you are and what you have.
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122-124-126-128 Michigan St. CHICAGO, ILL.
BROTHERS.

THE AMERICAN GALLOWAY BREEDERS' ASSOCIATION

Has just issued an interesting pamphlet containing some well-written articles, which will be of interest to every stockman. They are for free distribution and you can get a copy by writing to

FRANK B. HEARNE, Secretary, Independence, Mo.

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.....TOPEKA, KANSAS.....

Insures Against Fire, Lightning, Windstorms, Cyclones and Tornadoes.
The only company in Kansas with a paid-up capital of \$100,000. It writes more business in Kansas than any other company. It has paid losses amounting to \$493,266.63. Call on your home agent or write the company.

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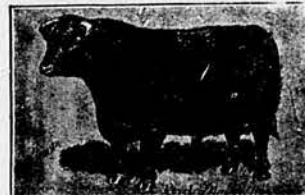
I am now offering a Choice Lot of Gilts and Sows bred to my Herd Boar, Eberley's Model 20854. If you are looking for the right kind, drop me a line and get my list before buying.

J. W. Higgins, Jr., Hope, Kans.

VALLEY GROVE SHORT-HORNS.

THE SCOTCH BRED BULLS

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



LORD MAYOR was by the Baron Victor bull Baron Lavender 2d, out of Imp. Lady of the Meadow and is one of the greatest breeding bulls of the age. Laird of Linwood was by Galahad 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.**

DON'T BE A—
MIGHT HAVE BEEN,

But buy some Good Young Breeding Stock now—while prices are reasonable and opportunities great.

For 25 Years the Leading Western

Breeder of Percheron and
Coach Horses.

I have now the finest collection of young Home-Bred Stallions and Mares ever owned in the State.
Correspondence solicited. Visitors welcome.

HENRY AVERY,
WAKEFIELD, KANSAS.

Nelson & Doyle

Room 220, Stock Yards Exchange Building, KANSAS CITY, MO.,

Have for sale at all times, singly or in car lots... **Registered Herefords and Short-horns.** Cross-bred Hereford Short-horns and grades of other breeds. Bulls and females of all ages

Stock on Sale at Stock Yards Sale Barn, Also at Farm Adjoining City.

N. B.—We have secured the services of John Goeling, well and favorably known as a practical and expert judge of beef cattle, who will in the future assist us in this branch of our business.

THE KANSAS CITY STOCK YARDS

Are the Finest Equipped, Most Modern in Construction and afford the Best Facilities for the handling of Live Stock of any in the World. The Kansas City Market, owing to its Central Location, its Immense Railroad System and its Financial Resources, offers greater advantages than any other. It is the **Largest Stocker and Feeder Market in the World**, while buyers for the great packing houses and export trade make Kansas City a market second to no other for every class of live stock.

	Cattle and Calves.	Hogs.	Sheep.
Official Receipts for 1898	1,846,233	3,672,909	980,303
Sold in Kansas City 1898	1,757,163	3,596,828	815,580

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

The Poultry Yard

Conducted by C. B. TUTTLE, Excelsior Farm, Topeka, Kans., 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.

POULTRY ON THE FARM.

All farmers' wives are supposed to raise some poultry, a few of them for pin money, but the majority of them to defray more substantial expenses. But whatever the object for which the profit is desired we all know that money is the main reason. Let us look for a moment at our management of the poultry we have on hand. Do we give them the thought and attention that is given to other branches of farm work, or do we let biddy look after herself, seek her own food, find her own nest, set where she will, and, if the rats and other vermin leave her any eggs, let her bring off her chicks and raise them as best she can?

To be sure what she does raise will be strong, vigorous and healthy chicks, for how could they be anything else and be proof against the trials and dangers? But will the quality make up for the lack of quantity? When it comes market time it is the quantity we want and not the quality of the self-raised chicks. The market demands not tough, wiry meat, but fat, tender, and juicy chickens such as result from careful feeding and steady and constant attention.

The question for us to answer is this: Are we bringing our poultry to the highest standard of usefulness and profit, or are we simply giving them what little time we can spend without interfering too much with our other work?

Mrs. American Hen is one of our most useful citizens. She is a shrinking, unassuming creature, too modest at times even to cackle over the birth of her own egg, leaving that celebration to her husband; and yet Mrs. American Hen has been quietly paying off mortgages and hatching out nests full of eggs for thousands of featherless bipeds.

There are now in this country 350,000,000 chickens, which lay 13,750,000,000 eggs. These eggs are worth \$165,000,000 and the poultry meat sold during the year will bring \$125,000,000, which gives \$290,000,000 as a very low estimate of the earnings of Mrs. Hen. Does any of my friends realize what this immense production of eggs and meat means to the country? Here are a few figures for comparison:

Value of swine.....	\$186,599,745
Value of oat crop.....	165,655,968
Value of wheat crop.....	237,928,998
Value of the poultry product.....	290,000,000

The average cow weighs 130 times as much as the average hen, and yet all the milch cows in the country have a total value of but \$263,955,545. Mrs. Hen in one year will earn enough to buy every cow and put the entire tobacco crop in the pocket as well. With such figures before us, a growing population and a surety that as cost of production is decreased by skillful management, that consumption of poultry products will be largely increased, we may rest assured of a market for some time to come.

Now let us look at some of the reasons for making poultry culture a prominent department of the general farm. First in importance is the small amount of capital necessary to invest. You have doubtless read Fanny Fern's story of the shrewd Yankee, who, wishing to start in the poultry business, borrowed a broody hen from one neighbor and a setting of eggs from another. He soon had a fine litter of chicks, and was ready to return the hen to her owner. But how was he to repay the eggs? He soon solved that by keeping the hen until she laid the required number, then returned both her and the eggs and guessed he had as fine a litter of chicks as anyone and about as cheap, too.

Next is quick returns. One reason why a farmer can not make money so rapidly as one can in many other lines of business is because he cannot turn his money over quickly enough. Poultry keeping will help the farmer in this respect by giving him steady cash returns if the business be rightly managed.

Another and very prominent reason is greater profit. For the same investment of capital and labor no other department of the farm will yield such generous returns.

Another reason especially applicable to our farms at a distance from market is that it is a concentrated product, easy to handle and market at a distance, which is not true of more bulky products.

Still another reason is that waste products of other departments may many times

be utilized, and, instead of being a waste, become a source of profit. For instance, dairying and poultry culture go hand in hand. When butter is made or cream sold, leaving the skim-milk at home, the milk will give far better results financially, fed to poultry than when given entirely to swine, as is so commonly done. Fruit and poultry make a good combination. The fowls aid you in the fight against insect pests.

While I would not advise every farmer to take up poultry culture to the exclusion of other lines of farm work, yet it seems to me that there is a chance to make this a paying department on nearly every farm.

Two hundred good hens kept in a proper way will pay the store bills of an average farmer's family. Wouldn't it pay those farmers who have store bills from \$150 to \$250 a year, or even more, to invest in a good poultry house and give the hens good care, and then in the fall find that the balance on the merchant's ledger is on the credit side? Such a condition of affairs is not visionary. It is within the power of every farmer to make these conditions, if he will give his poultry the care and attention the average farmer gives his cattle and hogs.

From \$50 to \$100 will build a good hen house. Nothing fancy is needed, simply a well-made, warm house about 12 feet wide and as long as the money will warrant. Too much glass is not admirable, as in the middle of the day the house will get quite warm from the sun and cold during the night, for remember that the glass radiates the cold as well as the heat, and sudden changes of temperature should be avoided. The old way of placing roosts one above another is now not at all used by poultry men, but the roosts are placed on a level and no fighting amongst the fowls every evening to see which shall have the highest place. I would advise placing the roosts about 3½ feet from the floor at the rear of the house, with a platform 8 or 10 inches beneath the roost. Nail a 4-inch strip on the front edge of the platform and the fowls will light on this when going on and off the roosts, which will keep them from getting dirty. The platform can easily be cleaned and then should be sprinkled with dry earth to absorb the moisture.

For nests use shoe boxes, which are about 24 inches long and 12 inches wide and high. A strip 4 inches wide nailed on the top to prevent the straw from falling out, a partition in the center of the box, the box turned on its side, with the opening towards the wall and placed under the platform (so as to have it in as dark a place as possible), makes the best nest I have ever used. It can be picked up, carried out doors and cleaned thoroughly. Nests which are nailed to or built into the walls are headquarters for lice. Have plenty of clean nests and your hens will not trouble you by stealing their nests.

During the summer and fall months the fowls will usually forage and find plenty of food and be all the better for the exercise they are compelled to take in their search for something to eat. They usually find such grain and other food as would otherwise be wasted. Hence their keeping costs the owner very little. During the winter I find it an excellent plan to scatter straw on the hen house floor and compel them to scratch in this straw for every kernel of grain they get. In this way they get exercise and plenty of exercise keeps them healthy.

Wheat is a much better grain than corn for laying hens, in fact, the very best food. I should place oats and barley next and corn last. During the cold winter months a feed of corn at night is undoubtedly a good feed for the hens, but the way it is shoveled out to them is altogether wrong, as in a short time they will get too fat to be healthy, to say nothing about being too fat to lay eggs.

I have seen people throw down about a bushel of shell corn before the hens, then when that is eaten up another bushel, and then wonder why their hens do not lay. They are in prime condition for market and that is all they are good for until they are starved down. I would suggest that the best time to market the males is at

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A Strange Malady Which Eminent Physicians Failed to Understand or Master.

From the Republican, Scranton, Penna.

A reporter recently learned of a remarkable experience which happened to Mrs. Frederick Braig, of North Wyoming Avenue, Scranton, Pa. In the interview with her, she said: "I suffered for many months with pains in my back and side. I called in all the physicians whom I knew; they did all they could for me, but admitted that I could not be cured. None of them seemed to know just what my ailment was, and doctored me for different diseases, but failed to benefit me."

"Instead of getting better I became worse, and was obliged to leave my work and remain at home. The pains became more severe, and it was not long before I was obliged to go to bed, and was unable to leave it for several months. I was very weak and suffered severe pains almost constantly, in the meanwhile doctoring all the time."

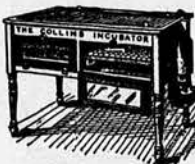
"At that time I was staying at the home of my father, Mr. Van Gorden, at 608 Marion street, this city. I grew worse steadily and was almost helpless."

"One day a neighbor came to see me and told me of Dr. Williams' Pink Pills for Pale People. My father was going down to the central part of the city that afternoon, and I asked him to get a box of the pills. He brought home a box that evening and I began taking them. The first box helped me some and I decided to get another. After taking the second box I felt much better, and after taking the third I was able to get up and be about. Before I had taken the fourth box I was able to go back to my work, and felt as well as I had ever felt in my life."

"I worked from that time until I was married. Since then I have not had to stop my work for any of the old trouble. I take the pills right along now as I did before. I do not think that it is necessary to take them as often as I did, but I take them periodically, and find that they keep me strong and well. I feel that I can truthfully say that Dr. Williams' Pink Pills for Pale People have saved my life, and I owe my recovery and present good health to them. The complaint is one that is well-known to many women. I cannot describe it, but I am sure many of them have suffered the same excruciating pains with which I suffered."

"I have recommended Dr. Williams' Pink Pills for Pale People to many of my friends that are suffering with the same trouble that I had. It is the best medicine that I have ever seen for the troubles that are so common to women. They will always be a household remedy in my home. I cannot say too much in their behalf, for to them I can say all my happiness is due."

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close of the breeding season, as the hens will do better during the summer months if alone. And the most profitable time to sell the hens is in August or September, just before they begin to moult, even if the price per pound is less than three or five months later, as they will not lay during the moulting season, and will only be a source of expense, while the pullets will do much better than when the old hens are driving them from place to place. Sell the cockerels early in the fall, then your pullets will have first place, and, if hatched in April, should commence laying in October. It was my intention to take up the subject of setting hens and raising chicks, but my paper is too long already, so I will mention a few things about the diseases of poultry. If asked what was the cause of so much sickness amongst farmers' flocks, I would reply, lice, lack of good, sharp grit, and too much corn. Cases of real cholera are very few in this country. A year ago a friend who had raised poultry a good many years, told me his hens had the cholera and asked what could be done for them. I asked him a few questions, and then mildly suggested that lice were killing his hens instead of cholera.

He was offended that I should think his hens were having the life sucked out of them by lice. However, he examined his flock, and found them covered with lice. He used insect powder and washed the house thoroughly with hot kerosene emulsion and that was the last of the cholera. One must be constantly on the lookout or the lice will get the better of his fowls.

If they are given a nice box of clean dry earth so they can dust themselves it will greatly aid you in keeping down the lice.

It pays to take at least one good poultry paper, as oftentimes there is enough information in one number to be worth an entire year's subscription.—Mrs. A. C. Voss, Jewell, Iowa.

Summer Management.

One advantage in using earthen vessels for supplying the fowls with water during the summer is that they are very easy to keep clean, and this is an important item in maintaining good health. Fresh water should be supplied twice daily from now until cold weather in the fall, and care should be taken to see that the vessels are kept clean. If a few nails or old pieces of iron are kept in the vessels it will help in maintaining good health.

Much disease results from allowing the fowls to drink impure water, and especially so in the summer time, and the safest and best plan is to supply water daily in clean vessels where they can help themselves.

With both the feeding coops and the drinking vessels it is essential that their location be changed every few days, as in warm weather the ground soon becomes foul from the excrement and the wasted food. By changing the location, a few days' sunshine and a few showers will purify these places, and especially so if a little lime is sprinkled over them. A little care in this respect will do much towards maintaining good health and thrift.

Young ducks should be pushed now. The latter part of June and early part of July is when the best prices can be realized for them if reasonably well matured and in good condition. If well cared for and well fed they will make a rapid growth, in fact, by feeding a duck will make twice the gain that a chicken will, and can readily be made to weigh four pounds when ten weeks old. After they get reasonably well feathered, outside of feeding liberally and supplying with plenty of water, growing ducks will need but very little care, in fact, they will thrive better and keep healthier if they are allowed to run in the orchard during the day.

At all times pure fresh air is essential to the best health and comfort of the fowls, but, if at any time it is of more importance than another, it is during the summer. Ventilation is best afforded in the poultry house by openings in or near the roof. One of the principal advantages in this is that it lessens very materially the liability to direct draughts. When confined in close quarters, where there is no opportunity for the rapidly accumulating foul air to escape, poultry can not thrive, in fact, in a majority of cases, during the summer at least, it is better to allow the fowls to roost in the trees rather than to compel them to remain all night in a close, unventilated house.

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FOR SALE.—100 cars cottonseed meal. Also corn and feed. Address Western Grain and Storage Co., Wichita, Kas.

TOULOUSE GEESSE, PEKIN DUCKS, CORNISH Indian Games, Brown Leghorns, Great Danes, Scotch collies and fox terriers. Burton & Burton Topeka, Kans.

WANTED.—To lease or buy a cattle ranch, from 1,000 to 1,500 acres; southern Kansas preferred. Must have living water. Address, J. H. Wallace, 2408 E. Eleventh Street, Kansas City, Mo.

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

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.

TO EXCHANGE.—A daughter of Hadley Jr., dam by Klever's Model, for ten bushels of alfalfa seed on track. F. W. Baker, Council Grove, Kans.

JACKS FOR SALE.—Three choice black jacks for sale, 3 to 5 years old. Prices right. Theo. Welch selbaum, Ogden, Riley Co., Kans.

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.—At Wyndon Place, 10 miles southwest of Topeka, on Alma road, four registered Shorthorn bull calves, 8 to 12 months old. Postoffice address, J. W. Sheldon, southeast corner Sixth and Van Buren, Topeka, Kans.

WANTED.—Alfalfa, cane and millet seed; also a limited quantity of Jerusalem corn seed. Correspond with F. Barteldes & Co., Lawrence, Kas.

BERKSHIRE SOWS BRED.—To farrow in March and April. Choicest of individuality and breeding, at \$20. Rutger Farms, Russell, Kans.

SHORTHORNS FOR SALE.—Forty-six cows and heifers, Cruickshank, Young Marys, Rose of Sharon and others; an extra lot. Nearly all were sired by that grand Cruickshank, Royal Prince 100646. Six bulls ready for service, sired by Young Mary bull, Glendon 119371. Theodore Saxon, 222 West Eighth St., Topeka, Kas.

Use Kansas Lump Rock Salt For Stock.

Purest, Healthiest, Best.

Address **WESTERN ROCK SALT CO., ST. LOUIS, MO.**
Sole Agents for Lyons Rock Salt Co., and Royal Salt Co.

GROUND ROCK SALT FOR STOCK.

Use Rock Salt for Hides, Pickles, Meats, Ice Cream, Ice Making, Fertilizing, &c., &c.

Mines and Works, Lyons and Kanopolis, Kan.

PUBLIC SALE OF HEREFORD CATTLE

TO BE HELD AT OUR SALE PAVILION AT BELTON, CASS COUNTY, MISSOURI, ON MONDAY, APRIL 24, 1899.

Registered Herefords

Forty-two bulls and 63 Heifers, from 13 to 26 months old. Thirty-three of these heifers have been bred and safe in calf by either the undefeated Heslod 29th 66304, in leading State fairs in 1896 and 1897, Imp. Roderick 80155, Imp. Victor 76070, Monitor 58276 or Tribune 10th 78558. This selection is from our herd of over 500 head of our own breeding and the tops of our young stock. Many of the bulls are good enough to head herds and quite a number of the heifers are good enough for the show yard. Sale will commence at 10 o'clock a. m. Write for free copy of catalogue.

A special train will leave Kansas City Union Depot over the Kansas City, Fort Scott & Memphis Railway on April 24 at 8 a. m., arriving at Belton at 9:20 a. m., will leave Belton at 7 p. m., arriving at Kansas City at 8:20 p. m. Cols. F. M. Woods, James W. Sparks, and S. A. Sawyer, auctioneers.

Belton is 30 miles south of Kansas City and is on the Pittsburg & Gulf, the Memphis and Frisco railroads.

SCOTT & MARCH, Belton, Mo.

Great Combination Sale of Shorthorn Cattle

To Be Held at the Kansas City Stock Yards, in the Sale Pavilion of W. S. Tough's Sons, at Kansas City, Mo., on

THURSDAY, APRIL 27, 1899, AT 1 P. M.

This offering consists of 69 head of finely-bred Shorthorn cattle, 44 females and 24 bulls ready for use.

The animals in the sale represent Shorthorns of the purest and best breeding, of fashionable families and of fine beef and milking quality.

Many fine show animals can be found among the females, while a number of the bulls are extra fine show animals and fit to head herds, as they are exceptionally fine animals and of the purest and most fashionable breeding.

The sale will be for cash but if time is desired it will be given if arrangements are made before sale commences.

Catalogues will be furnished by addressing either of the undersigned:

JOHN MCCOY, SABETHA, KANS.

POWELL BROS., LEE'S SUMMIT, MO.

G. W. GLICK & SON, ATCHISON, KANS.

COL. F. M. WOODS, Lincoln, Neb., Auctioneer.

WHEN WRITING ANY OF OUR ADVERTISERS PLEASE MENTION KANSAS FARMER.

PUBLIC SALE OF SHORTHORNS

Thirty-five Head From the Crystal Springs Herd, On Tuesday, April 25th, 1899, at Breckenridge, Caldwell County, Missouri.—22 Bulls and 15 Females.

Tops Selected From the 1897 and 1898 Produce of the Herd. Choice Individuals Royally Bred. Sired by

CHIEF VIOLET 4TH 111304 (a Pure Cruickshank), or Kirklevington Duke of Hazelhurst 11th 123052 (a Pure Bates Kirklevington), and out of the best cows in the Crystal Springs Herd, of the choicest Bates breeding, of such popular families as Acorn, Princess, Goodness, Rose of Sharon, Young Phyllis, Duchess, Tuberosa, Annette of Knightly Hall, etc.

A SELECT LOT

The 20 bulls are from 10 months to 2 years old, and heifers are yearlings past and coming yearlings, all of my own breeding; all reds except one, and individually are the kind I am proud to offer. Sale under cover at farm adjoining town. Col. J. W. Judy, Auctioneer. Breckenridge is on the Hannibal & St. Joe (Burlington) Railroad. Catalogues will be sent to any address upon application.

J. F. FINLEY, PROPRIETOR, Breckenridge, Missouri.

PROMPT.

POTATOES AND PRODUCE.

We offer subject to being unsold:

Fancy Minnesota Beauty of Hebron, per bu. \$1.00
Fancy Red River Early Ohio, per bu. 1.20
Fancy Minnesota Rose, per bu. 1.00
Fancy Minnesota Burbanks, per bu. .90
Fancy Minnesota Peerless, per bu. .90

ESTABLISHED 1883.

Fancy Minnesota Bliss' Triumphs, per bu. .90
Choice Native Early Ohio, per bu. .90
Choice Native Early Rose, per bu. .90

SEED SWEET POTATOES.

Yellow Jerseys, per bu. \$1.00
Yellow Nansemonds, per bu. 1.00
Red Nansemonds, per bu. 1.10
Southern Queen, per bu. 1.10

RELIABLE.

remittances. Ship your Produce direct and receive full cash value.

COPE & CO.,

117 KANSAS AVENUE,
TOPEKA, KANSAS

ONION SETS.
Yellow Bottom Onion Sets, per bu. \$2.25
Red Bottom Onion Sets, per bu. 2.25
No charge for package or drayage. Ten cents extra on each order for less than one bushel.

We handle Butter, Eggs and Poultry. Our commission is 10 per cent on actual sales. Daily