

# KANSAS FARMER

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TOPEKA, KANSAS, APRIL 26, 1906

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## THE CALIFORNIA EARTHQUAKE.

Early on Wednesday morning, April 18, the city of San Francisco and surrounding country were violently shaken by an earthquake. As people rushed into the streets in their night clothes, the earth seemed to heave and roll beneath their feet, massive buildings tottered and fell, and fire broke out in the falling structures. Many were killed, many were injured in various ways, and some are believed to have perished in the flames. While it is known that several hundreds met violent deaths, the exact number has not been ascertained and will probably never be known. The earthquake broke the water-mains so that the firemen were deprived of their usual means of combatting the flames. They resorted to dynamiting whole blocks of buildings in the hope of checking the fire, but, fanned by the fierce winds, the fire leaped at a bound the openings created by the dynamite, and the destruction sped on until about three-fourths of the city had been burned.

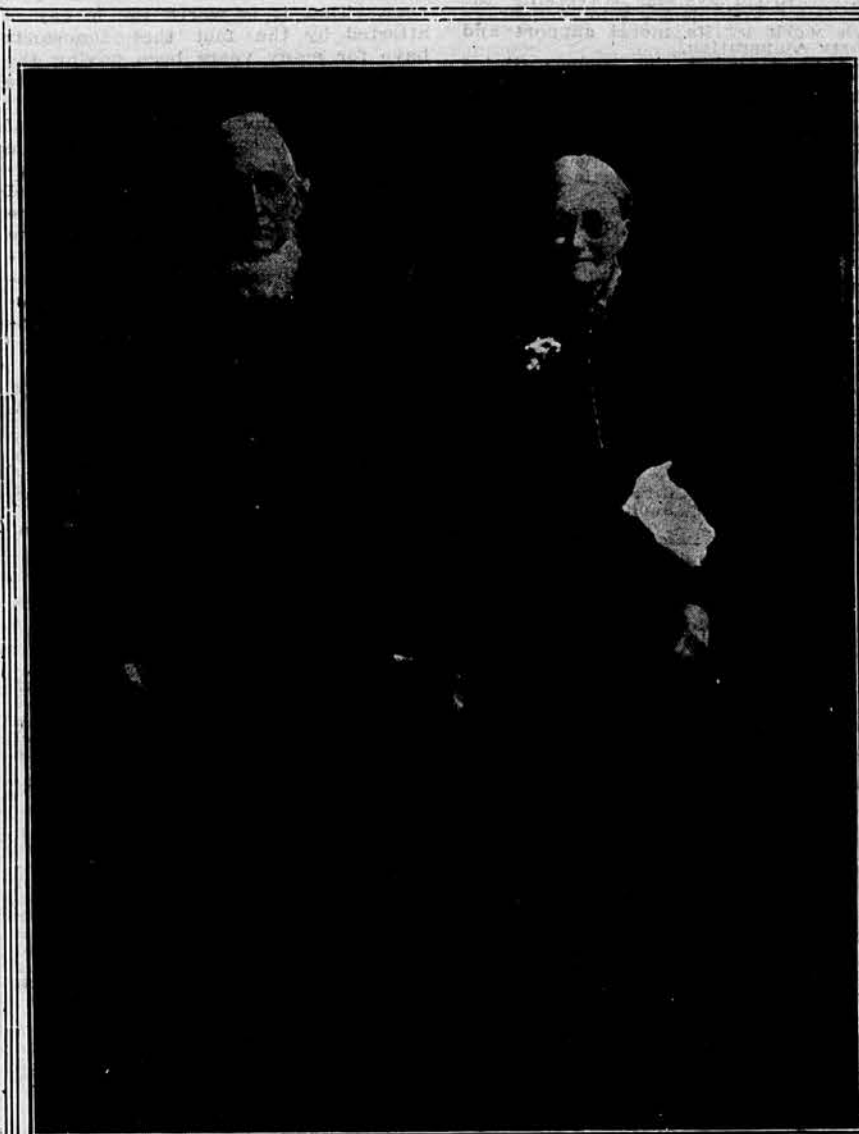
It has been stated that 250,000 people were rendered homeless. Most of them gathered in the parks and in other open spaces. Their privations, their sufferings, and their losses appealed powerfully to the sympathies of their fellow men all over the country, with the result that relief in large measure was despatched to the stricken as rapidly as express trains could carry it. A million dollars was promptly appropriated by Congress, and a million and a half followed on Tuesday of this week. The railroads promptly offered to carry all relief goods free of charge. Without delay, Kansas despatched many carloads of flour, carloads of meat, carloads of potatoes, and in addition, telegraphed thousands of dollars in money. With commendable promptness and energy, Governor Hoch addressed himself to the work of obtaining and forwarding relief. He was placed at the head of the State committee and in cooperation with other willing workers did effective service in promptly sending supplies to starving and shivering unfortunates.

The confusion which resulted from the sudden and prolonged catastrophe called for the exercise of prompt and decisive authority. The Golden Gate City was fortunate in the fact that the military post there was commanded by a man of the judgment and capability of General Fred Funston, who, without waiting for orders or the unrolling of any red tape, promptly issued and caused to be executed orders which rapidly brought chaos to an end, made looting dangerous, systematized relief work and restored sanitary conditions.

The relief work was at first placed in General Funston's hands, and was executed with a soldier's promptness and a philanthropist's tenderness. Later, the relief work was turned over to Dr. Edward Devine, of the National Red-Cross organization.

The California coast has had previous experiences with earthquakes. On October 21, 1868, San Francisco was shaken by an earthquake in which four persons lost their lives. After this, many houses were constructed of redwood logs neatly dressed and usually covered with weatherboards. Tall buildings were tied with iron rods as security against earthquake shocks. In the early days of the city, it was several times destroyed by fire, but after each fire a finer city took the place of the one destroyed.

The San Francisco just now the center of interest contained, a few days ago, about 400,000 people. Its wealth and business were immense. Doubt-



Mr. and Mrs. T. F. Little, Emporia, Kans., Who Have Taken The Kansas Farmer for Forty-One Years.

EDITOR KANSAS FARMER:—We thank you for your kindness in sending us a free KANSAS FARMER the past year because of our age and length of time we have taken THE KANSAS FARMER (since 1865), and we would show our appreciation of your kindness by enclosing one dollar for the Y. M. C. A. building. We are glad to have lived in Kansas while it is being made a great, GREAT, GREAT State, and THE KANSAS FARMER has helped.

Emporia, Kans., April 14, 1906.

MR. AND MRS. T. F. LITTLE.

less a more beautiful city will spring from the ashes and ruins. Doubtless the advances recently made in fire-proof construction will make the new city secure against such losses by fire as have just been experienced. Buildings of Portland cement concrete reinforced plentifully with steel rods are practically proof against fire. In many modern buildings this construction is used not only for walls but for beams, floors, ceilings, and roofs. Metal casings and doors furnish nothing to burn, while glass in which pigeon wire is embedded retains its place even though the heat break it. It remains to be seen whether such construction can be so strengthened by increasing the numbers of steel rods as to make it secure against earthquakes. There is little doubt but that, properly used, such materials may be so made as to be capable of resisting shocks that would throw down buildings as usually constructed of brick or stone and mortar.

While some will probably want to get away from the scenes of the great catastrophe, while some will fear a

repetition of the earthquake, most persons will quickly recover from the shock. It will be realized that it takes nature a long time to get ready for such a convulsion, so that the middle-aged person who now lives at San Francisco is not likely to see another like calamity.

## CLEANING DODDER-INFESTED ALFALFA-SEED.

Recent experiments conducted by F. C. Stewart and H. J. Eustace, of the New York Agricultural Experiment Station, show that almost any alfalfa seed on the market may be made practically free from dodder and safe to sow by careful hand-sifting through a wire sieve having twenty meshes to the inch. A cheap, serviceable sieve for the purpose may be made by constructing a light, wooden frame about 12 inches square by three inches deep and tacking over the bottom of it twenty-mesh wire-screen made of No. 32 (English gauge) round wire.

One-fourth to one-half pound of seed should be put in the sieve at a time and vigorously shaken during one-half

minute. A man should be able to clean from five to ten bushels of seed per day.

Dealers in alfalfa-seed should either sift all the seed they sell or else provide their customers with the means of doing the work themselves. Dodder is so troublesome a weed that no one can afford to take the risk of sowing unsifted seed.

## POISONING CUT WORMS.

The Oklahoma Experiment Station reports that further experiments in poisoning cut worms, which have been working on wheat and alfalfa, have shown the following mixture to be superior to spraying with Paris green, as formerly recommended:

Thoroughly mix while dry, one pound of Paris green and fifty pounds of wheat bran, make moist, but not sloppy, by adding water in which a quart of cheap molasses has been dissolved. Place this mixture in spoonful piles where the worms are working. It attracts the worms from the wheat and oats. It is also good grasshopper poison.

## A VALUABLE BOOK.

One of the most valuable books recently published is Black's Medical Dictionary. It is written so any intelligent person can understand it. More than its name implies, it describes as well as defines. By its use one can be informed of the treatment of the common ailments. The value of the book for general use is best shown by a quotation as follows:

"FAINTING or Syncope, is a temporary loss of consciousness associated with feeble action of the heart.

"CAUSES.—The manner in which the loss of consciousness is produced appears to be that the feeble heart is unable to pump blood up to the brain, thus causing anemia of that organ, and rendering it unable to act. If the person who threatens to faint lies down, or, still better, if she sits and then bends forward so as to bring the head below the knees, the faint is averted. The feebleness may be due to some long-standing heart disease, which through an overstrain suddenly reaches a climax. Or it may be a part of the general muscular relaxation which takes place in a hot bath, fainting in a bath being sometimes a cause of death in weak persons. Powerful emotion, generally of a sorrowful nature, but sometimes even great joy, is a very common cause. Extreme pain, such as that due to the crushing of a limb, and shocks to the nervous system, such as a blow on the head or on the abdomen, are very apt to cause fainting, or even the more serious condition known as "shock." Disgusting smells and sights, breathing of bad air, and general exhaustion are also causes. As a rule, a combination of these causes is necessary, except in hysterical persons, and persons weak from some illness, who are specially liable to faints. Certain drugs which depress the heart's action, such as tobacco or chloroform, when taken in large amount, produce syncope.

"SYMPTOMS are well known. There are certain warning symptoms, such as pallor, feebleness of the pulse, a sinking feeling, and a dulness of sight and hearing. When the faint has occurred, the person lies still, breathing very faintly, with feeble pulse, pallid complexion, and often perspiration standing in drops on the face.

"The faint, as a rule, lasts only a few seconds or minutes, but it may last for hours, and hysterical persons may pass from one faint, only to fall into another, several times.

"TREATMENT.—The faint may often be prevented by attending to the cause



as stated above. The person in a faint should be laid flat on the back, and care should be taken that breathing is unimpeded. If care be not taken to leave the fainting person lying flat, death may ensue, but if this be attended to nothing more is usually necessary. Stimulants may be applied to the skin in the form of cold compresses on the head, slapping of the hands, pinching of the cheeks; or to the nose in the form of smelling-salts or eau-de-Cologne, or the pungent fumes of burnt feathers."

The book is published by the Macmillan Company, New York. It may be had postpaid through THE KANSAS FARMER at publisher's price, \$2.50.

Investigations of the U. S. Geological Survey have resulted in the collection of data that may lead ultimately to the introduction into general use of a new form of power—that developed by the gas producer and gas engine. The most gratifying discovery developed by this investigation is the fact that the cheaper coals—lignites that have heretofore hardly paid for mining—have been found, both in their natural condition and after briquetting, to be especially adapted to the production of power.

#### A SOUTHWESTERN DEVELOPMENT ASSOCIATION ORGANIZED.

The convention of Southwestern interests held at St. Louis last week was a large gathering of delegates from various sections of the vast domain lying west of the Mississippi River and south of the 40th parallel. The purpose was to promote a more complete development of the resources of a country whose possibilities have been but partially realized and slightly used.

The representations made by the delegates showed that the greatest need of nearly every section is more people. In some localities more and cheaper capital is needed, but in general, money is ready or easily obtainable.

The largest delegations were from Arkansas, Oklahoma, Indian Territory, and Texas. Kansas had but few representatives. It is fortunate for the State that Governor Hoch was there. He was more in demand than any other speaker, and his jovial devotion to and admiration of Kansas met a ready response.

The deliberations resulted in the formation of a permanent organization under the name "Southwestern Industrial and Development Association." The plan of organization is comprehensive, and if fully carried out should lead to more rapid realization on the dormant wealth of this great region.

The convention adopted the following resolutions reported by the committee:

Resolved, That we demand of Congress the immediate passage of a Statehood bill in the interests of Oklahoma and Indian Territory.

These Territories have met the requirements any set of fair-minded men should exact of them, and are entitled to have conferred upon them the right of self-government. The entire present condition of government in these Territories is to retard the industrial development of the entire Southwest, and is a crime against the civilization of this age.

Resolved, That a copy of these resolutions be wired at once to the President, Senator Beveridge, and Representative Hamilton.

Resolved, That we appeal to Congress to enact a law at its present session removing restrictions on the alienation of the surplus allotments of Indians in the Indian Territory of less

than full blood. We believe, after carefully studying the question, that the Indians of that Territory, of mixed blood, are, taken as a class, as competent to manage their affairs as the average citizens of the several States, and to deny them this right is an insult to their intelligence, and will tend to discourage them, rendering them less fitted for citizenship than they are at present.

That the present law in force in the Indian Territory in its practical application is in direct line with the desires of the so-called grafters, and will result in the lands being bought up in piecemeal by that class of speculators, to the detriment of the bona fide settler and Indian owner, and to the hindrance of the industrial development of that section of the Union and the entire Southwest.

That it is the desire of the Indian owners of the land that the recommendations we make be embodied in a law. We make this request to Congress after careful consideration of the question in all its phases, and believe that justice to the people concerned, demands the passage of such a law. Resolved, That a copy of this resolution be wired to the President, Secretary of the Interior, Senator Spooner, Senator Clapp, and Representative Curtis.

Resolved, That this convention heartily indorses the work of immigration now being carried on by the various railroad systems traversing the Southwest and desires to encourage such work by its moral support and hearty cooperation.

Resolved, That the various States here represented be urged to establish publicly and industrial bureaus through their several Legislatures and provide funds for the support of such bureaus, so that the advantages of the Southwest may be more advantageously and aggressively advertised.

Resolved, That this convention heartily indorses the work undertaken by the National Rivers and Harbors Congress, which convened at Washington, D. C., on January 15, 1906. That it recognizes the necessity for improving the waterways of the United States as the most potent and forceful means of internal development. That it recognizes the importance of having the Congress of the United States make more liberal and generous appropriations for the river and harbor work in the future. And it is the sense of this convention that the various clubs here represented give their hearty support to the work of raising funds to educate the people of the United States to the necessity of having such liberal appropriations made."

Resolved, That the commercial and industrial interests of the Indian Territory demand that some disposition should be made of the segregated mineral lands, whereby the surface of the lands can be cultivated, pending investigation of the lease conditions in that Territory proposed to be made by Congress.

That unless such provision is made thousands of acres of land will be allowed to remain idle, to the detriment of the business interests of that section of the Southwest.

Resolved, That a copy of this resolution be wired to the President.

Resolved, 1. That it is the sense of this convention that the United States should be represented by not less than seven commissioners in the Pan-American Congress to convene in Rio Janeiro, Brazil, in July of this year, and that at least one of them should be a resident of that portion of this country, lying west of the Mississippi River, and another of that portion of this country lying east of the Mississippi River and south of Mason and Dixon's line.

2. That this convention tender United States Senator Morgan, of Alabama, its thanks for calling the attention of Congress to the lack of representation of the sections herein named in said Pan-American Congress and causing means to be provided for the same.

Whereas, with the understanding that this convention when called had for its principal object the building up of our respective sections by securing desirable immigration; therefore, in order that this great subject of immigration may not be lost sight of in the multiplicity of other matters, it is hereby

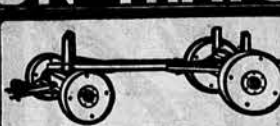
Resolved, That the great Southwest will most cordially welcome good people from any of the other States of the Union and from foreign countries.

Resolved, That in the Southwest section of this country there is a great field for the employment of labor at good wages, and an undeveloped empire of resources for the profitable employment of millions of capital now lying idle or bringing in only small returns in the Northern and Eastern States.

Resolved, That it is the sense of this convention that the question of immigration is paramount to all others, and that some plan should be formulated, that action may be taken in a decided and forceful manner. We recognize that nothing can be accomplished without financial aid, and we think that in addition to the duties of the vice president and secretary of each State and Territory, they should also be required to make and collect an assessment and advertise each State and Territory as a part of the Southwest.

The exercises closed with a banquet tendered by the St. Louis Mercantile Club at the Jefferson Hotel. About six hundred guests sat down at 8 o'clock. At 10 o'clock the speaking began. Several Governors and other persons of note had made their remarks by 12 o'clock, at which hour Governor Hoch was invited to respond to the toast, "Kansas." His attempt to cut short his remarks was met with many calls to "go on." The Governor did "go on" for over an hour with a speech in which argument and jollity were so intermingled and made to reinforce

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each other that cheers came from even those who had advocated adverse views. One of the most telling periods was that in which he endorsed and admired the record and positions of Governor Folk, of Missouri.

#### BLOCKS OF TWO.

The regular subscription price of THE KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year, and one new subscription for one year, and one dollar to pay for both. In like manner two new subscribers will be entered, both for one year, for one dollar. Address, The Kansas Farmer Company, Topeka, Kans.

#### Miscellany

The Agricultural College Y. M. C. A. The subscriptions for the Agricultural College Y. M. C. A. building are progressing favorably. The following letters to Secretary McLean have the right ring:

##### A FARMER'S LETTER.

Inclosed \$5 for your College Y. M. C. A. building. I think Kansas farmers can do nothing better for their boys than help complete this building and then contribute to the best possible work of that organization.

Manhattan, Kans. W. FRYHOFFER.

##### THE GOVERNOR'S LETTER.

The effort made by the young men of the State Agricultural College to erect a Y. M. C. A. building in Manhattan for the benefit of the students of that institution and other young men is a noble one and worthy of every encouragement. When erected it will stand as a monument to the faith and work of these splendid young men, and of honor to the beautiful city in which it is located.

E. W. HOCH.

Topeka, Kans.  
Previously acknowledged.....\$22,761.00  
Elmer Everett, Partridge.....5.00  
W. F. Milham, Waverly.....2.25  
R. E. McHenry, Waverly.....2.25  
Manhattan Grange Patrons  
of Husbandry.....25.00  
F. L. Williams, Agricola.....2.00  
W. S. Fallis, Garnett.....5.00  
"Right Hand".....2.00

Total.....\$22,805.50

##### Corn-Growing Contest.

The following boys will compete for prizes to be given by the Farmers' Institute, at Arkansas City:

Marvin Allison, E. W. Baxter, Loren Byrne, Ira Bahruth, Carl Burdell, Edgar Buzzl, John Bossi, Laurel Brown, Ernest Brooks, Orval Baker, Paul Bryan, Fred Brewster, George Custer, Russell Chaplin, Lowe Coggins, F. E. Cunningham, Emmet Chamberlain, A. W. Elrod, Ray Fresh, Maurice Gibson, Arthur Gibson, J. B. Goff, Ray Griffith, Hiram Gill, Edward Goff, Roy Gilstrap, McKinley Goslin, Henry Good Fox, J. L. Hughes, Olley Ham, Roy Ham, Lee Holland, Leonard Heflin, Geo. Hayman, Lloyd Isom, John Kimble, Ralph Love, W. E. L. Littleton, Roy Luderwick, Wm. Lucas, Frank Magnus, Ray Morgan, Chas. Morgan, W. E. Meldrum, Joseph McCutcheon, Sylvester Mayhill, Carl Marshall, John Munice, Ernest Mosier, Harrison McMillen, Favorite McMillen, C. E. Owen, Claude A. Porter, John Parsons, John Parr, L. C. Parker, R. E. Parker, Carl Rambo, Austin Ramsey, Chas. Rinehart, Wesley Ridgeway, Floyd Reynolds, Chas. Randall, Elbert A. Robbins, Fred Robinson, Homer Shirley, Ray Shirley, Creighton Smothers, Eldon Shaw, Robert Somers, Cash Shellhammer, Harry Snyder, L. R. Scott, John Stark, Leslie Trout, Carl Wilson, Chester Wright, Leonard Wright, Ormond Warner, James Wilson, Herman Wilson, Otto Werther, Roger Werther, Harold Wilcox, Robert Williams, Marion Wing, Milo Zook.

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## Agriculture

### Selection of Seed-Corn.

EDITOR KANSAS FARMER:—I have been a reader of THE KANSAS FARMER for some time and there are some things that are of particular interest to me and I think should be to every tiller of the soil. One of these things is corn and corn with a capital C. Men that try to raise corn should make it more of a business than they do and not do so much haphazard work. I believe that the first thing to take into consideration is seed, and I have found by experience that the best way to have good seed is to save it myself. I will give the plan that I followed for a number of years in Northeastern Iowa.

I found that seed selected late in the season when husking to crib would vary from one to four weeks in time of maturing, which in some seasons made a lot of soft corn. I found that to have corn that ripened uniformly you must plant seed that ripened at the same time, so I used to go through the field when the husks began to turn and select my seed for the next year. I selected ears of a certain type, of uniform size and maturity, and as near perfect as possible. I left husks enough on the ears to tie them together two and two, and hung them where they would dry thoroughly. When dry I sorted out the best, shelled them, and put the seed in barrels. I headed the barrels up and set them where no moisture could get to them. It was some trouble but the stand of corn I used to get from the seed more than paid for the trouble. I am going to follow the same plan in Kansas.

Franklin County. H. E. CURTIS.

### Alfalfa Sown on Sod.

EDITOR KANSAS FARMER:—In your issue of March 22 J. J. Hysell, of Rice County, asks about sowing alfalfa on sod. While the practice is generally discouraged in Eastern Colorado where people are coming in and starting new on their homesteads, there are several cases where the sod was broken 2 inches deep and harrowed well and alfalfa sown that have proven better than cases where alfalfa was sown on old ground, and we believe if sown just at the time of the spring rains it will grow better than when sown on old ground. Alfalfa sown here last spring is now up, and many roots have gone down over five feet as shown by digging. Crops that do well on Eastern soil do not do so well on Western soil, and I think alfalfa will do well on Mr. Hysell's land if the soil is plowed shallow. Do not be afraid to use the harrow with teeth slightly sloped backwards.

HOWARD GAMBLE.

Kiowa County, Colorado.

### Kentucky Blue-Grass for Pasture.

Will Kentucky blue-grass do well here for pasture? J. D. MITCHELL.

Dickinson County.

Kentucky blue-grass may succeed fairly well in Dickinson County on low bottom-land and in draws where there is a sufficient moisture supply, but on the average farming-land of your section of the State, Kentucky blue-grass will not prove a very profitable grass to grow for pasture. It is possible that in time the Kentucky blue-grass will become well adapted and grow successfully in your part of the State. In this county (Riley) we find many pastures are becoming fairly well set with Kentucky blue-grass, but the grass is not so productive as other domestic grasses which we can grow. Bromus inermis and English blue-grass are superior to the Kentucky blue-grass in productiveness, and the last-named grasses may be used either for pasture or for meadow. It is true that the Bromus-grass and English blue-grass may not make so permanent a pasture as Kentucky blue-grass, and I do not recommend using them as permanent pasture, but rather as crops in rotation with other crops, the plan being to seed the land to grasses and clover or grasses and alfalfa and keep the fields in grass for four to six years, when the land should be broken and planted again with corn and other grain crops. Used in this way the Bromus inermis and English blue-grass are productive and profitable grasses to grow, and much larger crops of corn and other grain may be grown by using the grasses as a rotation crop than by cropping the land continuously with grain, as is too often the present practice.

There is no good domestic grass which we can grow for permanent pasture in Central Kansas. If the purpose is to continue the land permanently in pasture, better not break it up but let

the native wild grasses grow, and maintain the soil fertility by an occasional application of manure or other fertilizer and by disking where this is possible. There are probably no grasses so well adapted for growing in Kansas where the land is kept continually in grass as the native Kansas grasses. A. M. TENEYCK.

### Handling Alfalfa Crop.

Last spring, about April, I plowed 10 acres of ground and left it fallow. In August I replowed the land to the depth of about 10 inches, and kept it harrowed down until September 1, when I sowed broadcast about eighteen pounds of alfalfa seed per acre and harrowed it once. I now have a fine, thick stand about four inches high which completely covers the ground. The land is fairly sandy and from 3 to 10 feet to water. I am at a loss to know how to handle the alfalfa. Shall I save any of the crops for hay? How often shall I mow it and when? Shall I mow it close to the ground or not? Please advise concerning best methods of handling the crop and I will follow instructions. J. B. WAMPLER.

Harper County.

You may cut the alfalfa regularly this season. Cut for hay as soon as the plants are about one-fourth in bloom. Mow close to the ground, the same as you would mow any other grass for hay. You ought to secure three good cuttings and perhaps four from this field during the present season. When alfalfa has become well established, as it is the second year after seeding, it may be cut closely and regularly as often as it makes a growth and comes into bloom. In fact it is urged that cutting alfalfa frequently causes it to grow ranker and more rapidly, and a larger production of hay may be secured by mowing relatively early at each cutting. The objection to allowing alfalfa to stand too long or until it is in full bloom before cutting for hay is that the leaves will be shattered more in making the hay than will be the case in harvesting less mature alfalfa, also the young shoots may start again from the crown of the alfalfa before the late mowing, and if these shoots are cut off it delays the start of the new crop and causes a less grown of alfalfa during the season.

A. M. TENEYCK.

### How Is Your Alfalfa?

EDITOR KANSAS FARMER:—I should like to hear how the alfalfa that was sown last fall looks this spring anywhere in Kansas. My guess is that it will be hard to find. Alfalfa will never become as noxious a weed in Kansas as it is in California and Nevada. J. C. BALCH.

Ferndale, Washington.

## Horticulture

### The Earth Taste in Kaw Valley Potatoes.

EDITOR KANSAS FARMER:—It is a serious commercial mistake to so handle a crop as important as that of the great potato fields of the Valley of the Kaw in Kansas, as to have to market the product at a low price to make a sale at all because of the deterioration due to allowing an early crop to lie in the ground undug until they can be sold as a late crop. We refer to the earth-taste of potatoes, so plainly apparent to the taste, when the cooked vegetable is served upon the table, and so well known in Lawrence that the private families buy but a bushel at a time. When the householder buys in large lots he demands Northern potatoes or the Colorado irrigation tuber, and car after car are shipped here from outside to take the place of the home-grown potato, which latter has to be shipped where it is not known. Still further we know of growers who raise and ship by the car, who carefully provide their own family supply by purchasing outside potatoes.

The cause of the faulty practice is, of course, a financial one. When the crop matures, the demand is strong and the price good; the crop is dug in haste and shipped; first returns are good; soon hot suns upon wet soil sunburn the potatoes before they can be picked up and sacked; the damage is not noticed; the cars arrive in bad order, and prices break so badly that shipments must stop. If weather conditions have been unfavorable, many potatoes have been shipped with the black sticky soil adhering. Every excuse given the commission-men helps beat down prices; the returns on some cars are ridiculous; on others there is a serious loss. Now here comes in the faulty

practice. If dug and stored in bins, the potatoes go through a sweat and soon rot—a total loss. If allowed to remain undug they keep perfectly until October some years, other years the earth-taste results. When they are dug and handled in late fall, they will keep in ordinary cellar-storage. Are they not in reality an early potato, dug and sold as a late potato?

### CAUSES OF EARTH-TASTE.

Now what causes the earth-taste in the undug potato?

(1) Is it a sour soil from excessive wet as is mostly believed? (2) Is it hot sun on dry soil? (3) Is it hot sun on wet soil? (4) Is it the result of the grass- and weed-sod which forms over the field? (5) Can it be that the tuber is readjusting itself to a new growth, and that this is the cause of the "taste?"

Next comes the problem of a modified field-practice to change the usual conditions prevailing. Running a lister between the rows has been found to be a partial benefit. If done as soon as the vines have died, it affords drainage and buries the crop a little deeper. How would a light application of air-slacked lime, applied with a manure-spreader, act to sweeten the soil? Millet as a catch crop over undug potatoes has been a success in parts of this State; will it act to help sweeten the soil, use up surplus moisture, and afford shade? How will oats-hay act? Sorghum will make a quick shade and will pump out lots of moisture and in the end will sweeten the soil, but it will leave a stiff stubble; will this stubble be harder to handle than the present weeds and grass? Cow-peas will make both shade and growth enough, but they maintain a decidedly moist ground-surface which might injure instead of benefit. So much for an effort to keep the fully matured and undug potatoes from acquiring the earth taste.

### STORAGE IN SUMMER.

Now how far has experimentation gone in the successful storage during the hot summer months of the early-dug crop? Will cold-storage finally step in to give us a dry, above-chilling temperature? How small must be the bulk to prevent damage from the sweat? Can we break up the sweat by rehandling at the proper time? How would it do to lay sacked potatoes end for end upon the surface of the ground and cover with earth in a single length-wise row? A few years since we piled in mid-summer thirty bushels of potatoes upstairs in the barn, every few bushels whitening the pile with a handful or two of air-slacked lime. They kept perfectly until late fall, the rot loss instead of being as usual several bushels was only a single dozen tubers in the thirty bushels. Besides, the lime made the potatoes dry and crisp like irrigated potatoes. But alas, we relined the potatoes as we stored them in the cellar bins and before spring the lime had drawn the cellar moisture, the potatoes had sprouted, and the bins were an interwoven mass of sprouts and potatoes. Still the liming was a complete success in keeping down rot in loosely-piled, shaded potatoes.

Kaw Valley practice is to plant so very early in the spring as to even chance a late freeze or two. This, with Northern seed, will make the quickest possible crop return for an urgent market. So far so good. But why not confine this first planting to what the market will absorb at that time and plant a late crop for the winter demand?

The two main obstacles are that a too open soil at that time of year (July) prevents the even start of the seed-potatoes; and that it is impossible to hold seed-potatoes without deterioration to that late season. Now can not we go to the Southeast Atlantic States and learn something about second-crop seed-potatoes? Could we get such seed through refrigerator-car and cold-storage service? What can we learn from Michigan and the hill country of Colorado concerning the term-length of the late-crop potatoes, and gauge our planting to our climate?

Will THE KANSAS FARMER, with its unequalled facilities and great influence, kindly invite the potato-growers to take up this subject in its columns? Let us collate our experience, modify our practice where experiment will justify, absorb what experience we can from other fields, and continue to experiment with a view to raising the grade of our product and eliminating the earth-taste from the Kaw Valley potato.

### EVAPORATED POTATOES.

Before leaving the subject I wish to refer to another phase of the matter. When the Klondyke rush occurred, a report got out of a new food product—evaporated potatoes. Realizing its

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importance I asked for information, with the result that a very vague report reached me that as an article of diet they were a disappointment; and as a new industry the evaporating of potatoes failed because of limited demand and the discoloring of the sliced potatoes as soon as cut. All the same, there is a fortune for the man who can evolve a partially prepared food from the potato, to take its place among the many other popular breakfast foods. Say, for instance, that the sliced potato was submitted for so many minutes to a roasting heat of so many degrees; the resultant product mixed equal weight with a carefully browned and roasted corn-meal and then put up in air-tight tin cans, tinfoil, or waxed paper. There is now upon the market and to be had at most groceries, a comparatively new product—Saratoga potatoes; the grocer gets a new supply several times a week from Kansas City—the thinly sliced potatoes are brought to a crisp brown in hot lard; are then drained and packed in paste-board boxes lined with waxed paper. The grocer keeps them in air-tight glass until sold. As the lard becomes old the crispness changes to a wilted condition, but heating in the oven just before using restores the crispness. The retail price is sixty cents per pound and the demand is brisk for ladies' functions. Why not grind the Saratoga potato and press perfectly dry into cartridge form and wrap air-tight? But enough of this. Who shall discover a new product that will keep better than the tuber itself?

Since writing the above I came across an article from the pen of S. S. Clawson, of Ashwood, Tenn., who writes in part:

"Potato-growing has increased in a radius of five miles of Ashwood, and elsewhere in the country, until there were over 4,000 acres of the spring crop planted there last year. The spring crop must be shipped to market at once, or as soon as dug, as they are very perishable. Within the last few years the farmers of Maury County have been planting fewer acres of the first crop and more of the second, as the second is more profitable. The second crop need not be sorted for seed purposes, the small ones being as good for seed as the large. The second crop is a pure gift, as the seed comes from the small ones of the first crop."

Now, if any Kaw Valley growers have experience with Tennessee second-crop seed-potatoes, why not let it be known; if not, why not try them? Would it be possible to plant the late crop to follow a crop of oats or oats-hay? Let us get around the earth-taste if possible and raise the value of our product.

GEORGE WEST MAFFET.  
Douglass County.

#### Spraying Pumps and Methods.

EDITOR KANSAS FARMER:—The rapid spread of fungus diseases will compel those who have large orchards to do some spraying with sulfate of copper to destroy fungus spores, notably the apple scab. The corrosive effect of sulfate of copper, blue vitrol, is such that the cylinder of the pump should be of brass. Iron and steel are very readily corroded and destroyed. In purchasing a pump it is well to select one that shall answer for spraying either with insecticides, such as Paris green, arsenate of lead, and disparene, or blue vitrol, a fungicide.

The pump should have considerable power and be capable of developing a heavy pressure. If the orchard is small and a hand pump is used, it is better to have a pump that can develop a pressure of sixty pounds than one of forty pounds. A pressure of one hundred pounds is very much better. There is, however, considerable doubt of developing one hundred pounds pressure without the use of a gasoline engine.

Experiments conducted in California indicate that a pressure of one hundred fifty to one hundred seventy-five pounds is still more effective. The farmer who simply sprays a family orchard will doubtless purchase a pump, costing \$12 to \$15, and mount it on the head of a kerosene barrel. The orchardist who has ten acres or more should purchase some one of the power sprayers geared to and driven by the wagon wheel.

The writer has used one of this class for fifteen years. Since power of this kind is utilized by driving along the row without stopping, a sufficient amount of misty spray can hardly be applied in the very brief time in which the wagon passes a tree. This defect may be partially overcome by driving and spraying twice around each row.

With an orchard larger than twenty-five acres across, it would be well to select a power sprayer driven by a gas-

oline engine. A gasoline engine of two or two and a half horse power can readily develop one hundred pounds pressure which can be utilized in making a finer mist of the spray and more surely forcing it into the calyx of the apple. There is also a saving of time, a matter of great importance since there are four to six days' time for the securing of the very best results in spraying. It is important that the orchard should be covered as rapidly as possible and thus utilize the very brief period before the calyx closes.

In the selection of the running-gear the tire of the wheel should be at least four inches in width and six inches would be better. R. A. Simpson, of Vincennes, Ind., bolted two three-inch rims, one on either side of a common farm-wagon wheel. In this way he secured a set of rims nearly eight inches in width. Equipped with wheels of this character he was able to haul his gasoline engine and filled tank over any ground that the horses could walk over, a matter of very great importance since it sometimes happens that on flat lands in extremely wet weather the ground becomes so soft that it is practically impossible to haul a tank filled with spray through the orchard.

In the selection of the pump it is imperative that it should be one which has an agitator, keeping the liquid constantly stirred up so the strength of the spray will be uniform. It is also well to use a pump having a revolving brush which will constantly keep the sediment and any stray twigs or leaves free from the base of the pump. Since the liquid must be forced through fine nozzles, the greatest care must be taken to keep the liquid free from lint or sediment which might clog the nozzles and impair the quality of the work.

#### BORDEAUX MIXTURE.

The ordinary formula in use is four pounds of sulfate of copper, five pounds of lime to fifty gallons of water. In order to dissolve the sulfate of copper and slack the lime with the least trouble perhaps the following suggestions may be useful in doing this work. Should the sulfate of copper be placed in the bottom of the tub or barrel it would not rapidly dissolve since the solution at the bottom becomes too strong to continue to dissolve. The best results are secured by suspending the sulfate of copper in a sack in the upper portion of the water.

The farmer who desires only a small amount for his few trees may dissolve four pounds of sulfate of copper in twenty-five gallons of water. He may put five pounds of fresh lump lime in twenty-five gallons of water. Lime slaked under water in this manner is less liable to burn than when slacked in large quantities in open air.

In uniting the solution of copper sulfate and the lime water, it is not well to pour one into the other but to pour a stream from each into a third barrel large enough to contain the united fifty gallons. The resulting solution is much more effective if the two separate solutions are poured in unison into the third barrel than if one is poured into the other. Those who have large orchards use elevated storage-tanks from which water is drawn off into smaller tanks, in one of which the lime is slaked, and in the other sulfate of copper dissolved. Streams from these are run into a third tank from which the spray tank is filled.

If fifty pounds of sulfate of copper are dissolved in twenty-five gallons of water, each gallon of this stock solution will contain two pounds of sulfate of copper. Doubtless, for many farmers it will be more convenient to measure out two gallons of this liquid and add it to twenty-three gallons of water and then combine a like proportion of the lime water for each fifty gallons desired.

#### ESSENTIALS OF SUCCESS.

1. Spraying materials should be properly compounded.
2. The spray should be applied at the right time.
3. The solution should be applied with such power as to create a fine misty spray.

E. F. STEPHENS.  
Crete, Neb.

The late Dr. Dashiell was fond of telling the following story on himself. "Preaching on one occasion at his old home, an old colored man who had taken care of him when he was a child was delighted with the sermon. At the close of the service he shook the doctor warmly by the hand, and said: 'Larry, you's a good preacher, you's a good preacher. I tell you, you's a soundin' brass and tinklin' cymbal.'" Of the same sort was the colored woman's compliment to the cultured and affable Bishop Galloway. She said, "Brother Galloway always do preach a powerful good text."

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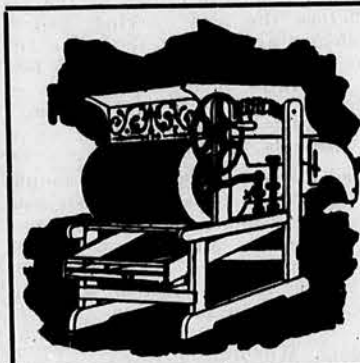
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October 18, 1906—Poland-Chinas, W. A. Davidson, Simpson, Kans.

October 20, 1906—W. R. Dowling, Norcat, Kans. Poland-Chinas.

October 24, 1906—Poland-Chinas, Frank A. Dawley, Waldo, Kans.

October 25, 1906—D. W. Dingman, Clay Center, Kans., Poland-Chinas.

December 4, 1906—Poland-Chinas, Lemon Ford, Minneapolis, Kans.

### Feeding Cattle for Market.

R. J. KINZER, ANIMAL HUSBANDRY DEPARTMENT, KANSAS STATE AGRICULTURAL COLLEGE, AT THE KANSAS IMPROVED-STOCK BREEDERS' ANNUAL MEETING, JANUARY 8-10, 1906.

The world's greatest problem is now and always has been its food supply. Wheat, or its products, is the great staff of life among the cereals, and beef is man's staff of life among the meats. In the United States we consume something like 14,000,000 tons of grain as human food and about 6,000,000 tons of beef annually. The amount of beef consumed annually by each person in the United States amounts to about 150 pounds. Thus we see that the problem of furnishing beef for our own people is by no means a small one, to say nothing of our export trade.

To be a successful cattle-feeder requires something more than muscular exertion. What to feed, how to feed, and when to feed are all questions that must be settled or the profits will not be burdensome; no matter how carefully a man may feed or how well he may prepare his feeds, unless he has the right kind of cattle his profits are not going to be great. Therefore, one of the first essentials in the profitable production of good beef is a thorough and clear conception of what constitutes a good feeder. A scrub Jersey or Holstein steer may make as many pounds of gain from a bushel of corn as a Shorthorn, Hereford, or Angus, but in the first case you are producing a cheap grade of beef, while with the steer of a good beef type and a good feeder, every pound of gain is worth from one to three cents more than that of the scrub. And there is certainly much more pleasure in feeding a good bunch of cattle than in feeding a poor one.

As to what time of year is the best to feed is a question on which feeders differ greatly. Many of our largest cattle-feeders claim they can not afford to feed during the winter months, as it requires more feed per pound of gain. And then the question of shelter and yards is also important. If cattle are expected to gain well and be profitable, they must be kept comfortable, but this can not be done in a small, muddy yard where only poor shelter has been provided. This is a subject on which there is much difference of opinion. The stockmen of the New England States give more attention to the care of their beasts than the farmers of the Mississippi Valley; and the farmers of the Mississippi Valley spend more time in caring for their stock than the ranchmen of the West; and our Scotch and English friends give more attention to the care and comfort of their animals than all three of these classes just mentioned. And we Americans go over there and pay them good big prices for thus caring for their cattle, and then wonder why we can't raise as good cattle in America as they do in England or Scotland.

Perhaps you will say this has little to do with the fattening of cattle. Perhaps it has; but to produce the best carcass of beef the most economically the beast that is to produce it must be started aright, and this can not be done unless his ancestors have been properly cared for and fed.

So, first of all, look to the comfort of the breeding herd. The general health of the herd needs consideration.

### DIPPING HOGS AND CATTLE IN KANSAS.

Professor R. J. Kinzer, head of the Animal Husbandry Department of the Kansas Agricultural College, writes: "We have used Zenoleum exclusively as a dip and disinfectant for our hogs, sheep and barns during the past season, with the best of results in all cases, and can give it a most hearty endorsement." You can get Zenoleum of the Zenner Disinfectant Company, 61 Lafayette Ave., Detroit, Mich. It only costs \$1.50 per gallon, express paid. "The Zenoleum Veterinary Adviser" can be had free on application. We urge you to write for it.

also the rearing of the calves with the least cost or drain to the parent's system, and the maintenance of maximum vigor in the herd. On the other hand, overcare is as detrimental as the lack of care. A life of ease, comfort, luxury, and freedom from exertion will lead to a low condition of the system. Treat the breeding herd in such a way as to produce strong and active calves. Give them plenty of good, clean feed, ample shelter, plenty of sunshine, and plenty of exercise, but do not pamper until they degenerate. The results of an experiment some years ago at our own experiment station show that there was a saving of twelve per cent in the cost of feed on steers well cared for as compared with those that had but poor shelter and care. The life of a beef animal is intended to be a short one, and the aim of the owner should be to crowd to maturity and market at as early an age as possible. What is more miserable to look upon than a herd of wet, cold, poorly-fed, and poorly-sheltered, shivering cattle, standing as close together as possible, for protection from the blasts of a storm, with their heads on the ground and their tails to the storm? Such exposure not only will exhaust the vitality of the best of beasts, but it is cruelty and an extravagant waste of feed.

What we want in our fattening cattle is maximum weight at a minimum cost. And under cost consider the length of time which they are to be fed, the amount and kind of feed which they are to consume, and the value of the yards or pasture which they are to occupy.

The price of land has increased; feeds are too high in price and the price of cattle is too low for us to make it a profitable business to feed as was the method fifty years ago. Cheap pasture lands and the free range are almost a thing of the past, and our cattle now must be turned to market at an early age. Grass is the most natural feed for cattle, and it is hard to get any combination of feeds that will equal it for cheapness of gains. Summer feeding on grass is preferred by many to winter feeding. One of the largest cattle-feeders that ever operated in this country said that he could not afford to feed during the winter months. But the average farmer has considerable more time to do feeding during the winter months than he has in the summer; and this is perhaps why we find so many feeding in the winter. I was unable to find figures giving a comparison of the relative cost of summer and winter feeding; but the averages of 100 experiments with hogs in winter and 99 in summer show a saving of 11 per cent in favor of summer feeding. A great many who summer-feed find cottonseed cake about as economical as any feed to use in connection with grass. Cottonseed-meal or cake will produce fat as fast as any feed we have, but the price of this product is hardly in keeping with the price of fat cattle, and there is some objection to it on account of its sometimes causing sickness, or what is called cottonseed poison; however, this is seldom seen when cattle are on pasture. If used for dry-lot feeding it should not be fed for too long a period or in too large quantities.

Corn will perhaps ever hold its place as the chief feed for fattening cattle, and it is safe feed for either grass or dry-lot feeding. When feeding on grass, soaked shelled corn can often be used to advantage. By using a wagon tank, soaking is a cheaper operation than grinding, and experiments show that there is a saving of 15 per cent in favor of soaked corn as compared with whole shelled corn, and about 5 per cent can be saved by soaking where there are hogs to follow the steers. Ground corn is always preferable to whole corn where the expense of grinding is not too great. Corn-and-cob meal in nearly all experiments has proven about equal to corn-meal as feed for steers. This gives fourteen pounds more feed per bushel of corn, but the expense of grinding is considerably more with the corn-and-cob meal than with corn-meal.

When the price will permit, bran may often be used to advantage. Steers fed on bran and hay by the Pillsbury A mills, of Minneapolis, made an average daily gain of nearly two pounds per day for a period of four months. Two or three pounds of bran, fed in connection with corn-meal, will often prove a valuable addition to their ration.

Oil-meal has long been used as a food for fattening cattle, and with good results in most cases, when fed in connection with corn, but it is a too highly concentrated, nitrogenous food to be fed alone with profit. At the Kansas station it required 732 pounds of oil-



## Farmers Say

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meal and 814 pounds of hay to produce a hundred pounds of gain. At the present prices this would make a hundred pounds of gain cost about fourteen dollars.

In our feeding experiments we have been unable to find any combination of feeds that will equal corn-and-cob meal and good alfalfa hay; and at the present prices of the various by-products, we doubt if there is much economy in feeding any of them.

Last winter at the Kansas station, with 2-year-old Shorthorn steers fed 219 days, it required 612 pounds of alfalfa and 690 pounds of corn-and-cob meal to produce a hundred pounds of gain, and the cost of gain was six and a half cents per pound.

One mistake that is sometimes made is turning on pasture, steers that have been heavily grained during the winter. This is usually a losing operation, and the more radical the change from the dry lot to the pasture the greater will be the loss. The increase in the cost of gains as the age of the steer increases and as the length of the fattening period increases are factors that must not be overlooked. We find that it takes all the way from 400 to 1,500 pounds of feed to produce a hundred pounds of gain, the amount depending on the kinds of feed used and the length of the feeding period.

From a fat-stock-show record, the cost of gain is given as \$4.03 for calves, \$7.98 for yearlings, and \$12.54 for 2-year-olds. The amount of grain required per hundred pounds of gain increases about 10 per cent after 60 days, 15 per cent after 90 days, and 20 per cent after 120 days.

With the most careful feeding and the very best care, we can not hope to produce the highest class carcass of meat unless we have the right kind of a machine for the changing of our farm products to beef, and we must all concede that "blood tells" in beef production as much as anywhere.

Kansas is producing good cattle, and she can produce still better ones by using a little better blood, by giving the old cow a little better feed and a little better shelter.

**DISCUSSION.**

Mr. Martin: There is one question I would like to ask that is agitating the farmers some; that is the subject of summer feeding and winter feeding. Now, in making up this statement, was the price of grazing land taken into consideration in summer feeding against winter feeding?

Professor Kinzer: Certainly; this considered the whole feeding question. S. C. Hanna: In this connection, I wish to inquire of Professor Kinzer if he has noticed Mumford's report from the Illinois Experiment Station? That experiment demonstrated (at least my conclusions were) that the cheapest possible beef gains were from broken ear corn and clover hay (I believe they had no alfalfa) and a moderate amount of oil-meal.

Professor Kinzer: The results are contradictory to those from experiments in recent years. Ensilage ranks with corn and corn-meal and corn-and-cob meal in producing rapid gains in fattening cattle. Corn-meal and corn-and-cob meal seem to be of about equal efficiency in producing quick finish. In this test more rapid gains were secured with whole than with shelled corn, and equally as good as with meal. A reasonably quick finish may be secured without the feeding of an extremely heavy grain-ration. Where conditions are such as prevailed in this experiment, corn-and-cob meal is not so valuable for fattening steers. The presence of cob in ground corn does not materially increase the efficiency. Whether or not cattle-feeders should use ground meal or corn-and-cob meal largely is a matter of convenience.

Mr. Elmer: I heard the professor say something about silage being equal to corn. Does that mean pound for pound?

Professor Kinzer: Silage ranks with ear corn and corn-and-cob meal in its ability to make rapid gains in fattening cattle. Last winter at the station we fed a bunch of steers on ensilage; that is, we supplied ensilage in place of corn as far as we could, and we did not find it to make any cheaper ration than feeding straight corn and alfalfa.

Mr. Elmer: Have you any figures for feeding snapped corn?

Professor Kinzer: No, I have not.

J. C. Robison: The gentleman spoke of feeding ear corn. We have been experimenting a little this fall in that respect—not with cattle, but trying to make flesh on horses, and we have been experimenting with a bunch of fifty 2-year-old stallions, part outside and part inside of the barn. Those on the outside we began feeding snapped corn and alfalfa hay, and they are still get-

ting ear corn, and they have gained two pounds per day; and those we had in the barn, on ground corn and oats and bran, with not to exceed one pound of oil-meal, are gaining close to four pounds a day; and we find that we can put a pound of meat on colts outside for just about half the cost of those inside the barn.

J. W. Robison: You see in that experiment the object in the outside horses is to grow them up to a point where they are ready to take on finish. The ones in the barn have reached that point and are taking on flesh. They get no very increased quantity or quality of feed, but they get currying, and they get bedding, and the best possible care to put finish on them. In speaking of the quality of the two lots, I think it is safe to say that nobody ever comes and buys a colt out of the pasture. It's hair is rough; it is not as ambitious. It appears that no man is good enough judge of a horse to buy a horse that is not put in good condition in competition with one that is.

Now, as to those experiments that are given from Illinois: nobody disputes the truth of any bulletin that Mumford sends out; but we don't know the condition of the silage; it is not told what it is composed of. There is silage, and there is silage again. I find when I feed cattle cobs, unless they are ground extremely fine, that you can pick up little particles of cob practically undigested. It may be said that it lightens up the food and aids digestion, getting the nutriment out of the corn better. That would be very good if there was no better way of doing that. A little bran, a little chopped hay, a little alfalfa, makes a very good thing to lighten up the corn-meal and not let it lie in a dough state on the stomach. About the best place I know of to run corn-cobs through is a cook-stove, with a good piece of beefsteak on top of the stove. If we have to feed cobs, they should be run through the grinder first. The question was broached here about feeding on grass. I have fed from 150 to 200 cattle on a pasture every summer with grass and corn. We take those cattle out of stock-cattle, some of the most mature, and about March 1, I turn them out on that grass pasture and, in place of the half-bushel of corn that we gave them in the dry lot, give them about a peck. About four years ago, when corn was worth seventy-five cents a bushel and wheat hardly as much, we fed them wheat, because there were four pounds more of wheat in the bushel. We put cottonseed-meal with all of it. Now, the corn is not much more than half the price of cottonseed-meal. Corn with us is worth thirty-five cents; so you see the price of the two kinds of feed—of all kinds of feed—should be a large factor in determining the quantity of each kind that the animal should consume to reduce the cost to the minimum. The best feed is pure grass because it is cheapest—with this peck of corn or an equivalent and oil-meal. Hogs follow, and we make nearly three pounds of beef and one of pork out of every bushel of corn; that is, feeding for several years it runs something near that—sometimes exceeds it, sometimes runs a little below.

President Potter: Did you ever select a bunch of cattle as you selected these and put them on grass alone and see what they would do?

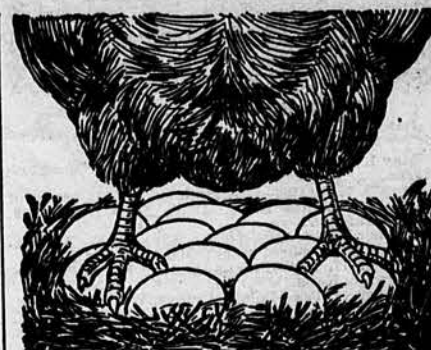
J. W. Robison: It will vary some; we do not always take the best cattle, but we take the most-matured ones. I think that a fair sample of the different kinds of cattle as to taking on flesh.

C. E. Westbrook: I would like to say one word to you farmers in particular in regard to Mr. Robison's talk—in regard to feeding those colts. The colts get a very much better growth—make more useful horses and get more muscle—when outside than they do when kept in the barn. This mere laying on of flesh on horses is not the valuable stuff for us, particularly in Kansas. As Mr. Robison said, people do not buy on their judgment as they do on looks.

Mr. Blair: A point of vital importance has been touched upon, and that is the matter of breeding stock. Whether it is best to bring them up outdoors on bran and muscle-producing feed, or indoors; whether it is the best way to let them rough it a little, or keep them up and feed them well and make them mature early, and keep them plump and so they will hold their heads up well. It is my opinion that it is the very best feeder that makes the very best breeder.

Mr. Westbrook: There isn't a horse in his stall, unless he has been abused, but what will go out and exercise. You must give them liberty.

J. W. Robison: I did not think that it needed explanation about the bene-

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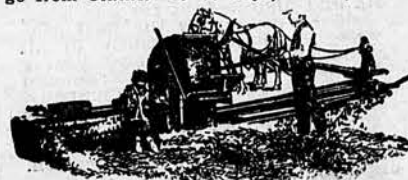
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fit of action in a horse. A horse is not like Mr. Kirkpatrick's hog, which is merely laying on so much flesh. No horse can develop speed and action without having room to practice. Now, no colt, be he draft or any other breed, can develop that straightaway action unless he has opportunity to practice it. We are not trying to finish those colts out there. We do not want to finish them down; we do not want them too fat; so we just keep them in that pasture until they are thrifty. We often give them bran and oats and a little forage, to assist in making the bone and blood and muscle.

Mr. Keats: I would like to ask Mr. Robison how he expects to make the most clear money out of the feed?

J. W. Robison: As I said, I think we never sold a colt out of the pasture. His hair is rough and thick and he is not kept up. They are all one class of horses coming right up. We take the most mature ones and the ones ready for market and put them in the barn and finish them, and the profits come in both bunches. We never want to put a horse on the market unless he is conditioned up and fit for sale, just as a good cattle feeder will condition his cattle. The money comes out of the ones in the barn.

Secretary Heath: Last year on this subject we had quite a discussion—an extra-good paper by E. B. Mitchell, who is manager of the Tebo Lawn Shorthorns, one of the greatest show herds in this country—and he summarized this question briefly. He said:

"We, as improved-cattle breeders, are supposed to be manufacturing beef by the improved method, and I firmly believe that the feeding qualities of even pure-bred cattle can and will be endangered by the overindulgence of the idea that fat cattle will not breed. How frequently we see very promising animals pass through a sale ring whose misfortune it is to fall into the hands of some misguided victim of this teaching, and for lack of proper care pass forever into oblivion! Is it not a fact that an animal worth owning is deserving of good care? If we were to take an invoice of our pure-bred herds, I am sorry to say that we should find some that have become impoverished for lack of sufficient foodstuffs to develop the young things into the massive, broad-backed animals of which we read, and to which we point with pride. That this is a vital point in the future of the pure-bred cattle business there is no doubt in my mind. Every home of pure-bred cattle should be a living example of these higher ideals and a school of instruction to the novice. And now, for fear of being misunderstood in this connection, I wish to say that good keep does not necessarily mean show-yard form, and yet I firmly believe that the more this is cultivated the more inherent the fleshing qualities become. Prices on pure-bred sires are now within the reach of all, and let us breeders put forth every effort to make the contrast of individual merit between the pure-bred and the scrub greater than ever before, at the same time placing ourselves in position to say, as would the Jewish vendor, 'He vas dirt cheap. You nefer got so much for your monies.'"

Professor Kinzer: It makes no difference whether raising horses or cattle, the most essential thing is plenty of sunshine and plenty of exercise. Do not feed your animals too much corn and give them some alfalfa. Now, as to the feeding indoors and outdoors: we find that in nearly all cattle experiments gains can be made a little more economically when fed inside. Good open sheds will make larger average gains, but the gains will be a little cheaper inside than out. As to the cost of grinding, we find it costs twice as much, or a little more, to grind corn-meal than it does to grind straight corn-meal. Professor Mumford's statements are rather contradictory to this. Bran is better than cob, but when you can get the cob for the grinding I think it the more economical than to use bran.

#### The Brown County Breeders' Shorthorn Sale.

Under the efficient management of Everett Hays, of Hiawatha, the Brown County Improved Stock-Breeders' Association held its first annual sale at Hiawatha, Kans., on Thursday, April 19. This was a combination sale made up of animals selected from the herds of G. Y. Johnson, Willis; T. J. Sands, Robinson; Everett Hayes, Hiawatha; John McCoy, Sabetha; Jas. F. Lahr, Sabetha; Ed. Schuler, Falls City, Neb.; A. F. Robinson, Morrill; Bert G. Wise, Reserve; Geo. Mannville, Fayette, Mo.; and W. W. Brown, Weston, Mo.

The animals were in good shape generally and the sale was a lively one. Col. Geo. Bellows, of Maryville, Mo., was at his best and conducted the sale in the most satisfactory manner. He kept the crowd in a good humor by his ready wit and spirited manner of handling the business and got every dol-

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The American Manure Spreader doubles the value of every bit of manure you put on your land. It breaks up and pulverizes it thoroughly. The distribution is uniform. Every foot of your land gets its share, and the manure is in such shape that it mixes easily with the soil.

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It may earn its cost before you remit us any money.

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lar the cattle were worth in most cases. Owing to the large number sold there were of course many bargains, but both the consignors and purchasers seemed well pleased with the results. The crowd in attendance was a large one, and was composed of farmers from the country adjacent to Hiawatha with the exception of a few from a greater distance. Most of the stock was sold to local buyers and the sale may be regarded as a great missionary effort which will insure a permanency of the Shorthorn breed and the success of future sales by this association.

Fifty head of cattle were sold, though only 48 of these were included in the catalogue. Of those catalogued 30 were females which brought \$2,270, an average of \$75.66. The 18 bulls brought \$1,667.50, average \$92.64. The 48 catalogued animals sold for \$3,937.50, average, \$82.03.

From these figures it will be seen that the demand for bulls was fairly good, while the females did not sell so well. It should also be stated that there were a good many young animals in the offering which served to reduce the average.

In addition to the animals catalogued, there were two bulls sold for \$85 and \$87.50 respectively. These are not included in the averages given.

Animals bringing \$100 or more sold as follows: Lady Alexandrian 5th, W. E. Smith, Baker, \$132.50; Hannibal's Beauty, Leo Deuhn, Leona, \$130; Nancy Belle, Ray Callan, Hiawatha, \$105; Lyda, John McCoy, Sabetha, \$160; Ben-lison, N. B. Hanson, Willis, \$130; Lilly, T. J. Sands, Robinson, \$100; Scottish Hero, W. P. Lair & Son, Horton, \$175; Loudon Duke 234108, Ed. T. Byers, Hiawatha, \$120; Maid's Lad 243874, A. R. Walters, Baker, \$115; Prides Model 242486, T. J. Whelan, Mayetta, \$140; Baron Mysle 176261, Geo. Mannville, Fayette, Mo., \$150.

Other buyers were W. B. Fordyce, Powhattan; Boyd Overfield, Hiawatha; John Hall, Powhattan; A. B. Vandayke, Sabetha; E. D. Ludwig, Sabetha; J. N. Richards, Hiawatha; Phil Mahoney, Reserve; C. D. Havens, Mayetta; Stephen John, Hiawatha; Jackson Hart, Hiawatha; A. A. Hoverson, Troy; A. F. Robinson, Morrill; Louis Kenistadt, Home; J. W. Field, Hiawatha; Ira McCoy, Sabetha; David Davis, Hiawatha; J. F. Reller, Hiawatha; S. W. Round, Hiawatha; T. J. Dawee, Troy; Finley McCray, Baker; T. S. Wise, Reserve; J. C. Berry, Hiawatha; W. W. Brown, Weston, Mo.; N. B. Hanson, Willis; Hans Torkelson, Hiawatha; M. A. Murphy, Willis; Frank Van Dolsen, Fairview; J. O. Heller, Hiawatha.

Arrangements have been made for a second sale to be held this fall, probably in November.

#### Allen's Pure Scotch Shorthorn Sale.

It has been a revelation to many Shorthorn breeders in the West, to know that Geo. Allen, of Lexington, Neb., has so many well-bred Scotch cattle, and to learn that he will make a public sale May 1, of nearly 50 head at the South Omaha sale pavilion. Mr. Allen reports eight calves dropped by the young cows booked for this sale and there will be others before May 1. There has been an unusually large demand for sale catalogs, which shows a wide and growing interest in straight Scotch breeding such as is found in Mr. Allen's consignment to this sale. The sale catalog shows the breeding of this lot of cattle, giving the names of the breeders of the dams, as well as of the sires so that one can see for himself how richly these cattle are bred and tell what is meant by straight Cruickshank breeding. The entire offering is a select lot and will enter the sale ring in prime condition, affording an opportunity to get foundation stock, herd-headers and prize-winners that should not be neglected by the enterprising and successful breeder. In the advertisement in this issue, note the breeding of the two young bulls; No. 8, Barmpton Duke 2d is a very fine young bull of pure Scotch breeding, belonging to that grand old family known as Barmpton Butterflies. No family of cattle stood higher in Mr. Cruickshank's estimation. Barmpton Flower in this pedigree was the dam of the great breeding bull, Barmpton 37763, that sired Earl of Aberdeen, Baron Victor, Spartan Hero, and others, to which is largely due the popularity of the Cruickshank cattle of today. No. 14, Lucky Boy, is likewise a richly bred Secret. The heifer

No. 29, is a choicely bred Cruickshank Matchless, and so we might go on analyzing the breeding of nearly every animal booked for the sale, but it is better that the reader interested do this himself and then make up his mind to attend the sale.

#### Sedalia Shorthorn Sale.

The dedication cattle sale in the new Live Stock Show pavilion, Missouri State Fair Grounds, being a combination Shorthorn sale held April 20, again demonstrated the fact that fine weather is not always favorable to a public sale—the preceding few days of nice weather had caused the "spring work fever" to attack every farmer within reach, and it would have been a masterful attraction that could coax them away from their work, hence the attendance was not so large as was expected or as the occasion warranted. Breeders were present from many parts of the State, and they heartily echoed the sentiment expressed by Colonel Harriman in his speech opening the sale, when he said that the stockmen and farmers of Missouri are to be congratulated upon having provided for their use so magnificent a structure as the great new show pavilion, and they are under lasting obligations to the enterprise and liberality of the State Fair Board for having furnished it. Colonel Harriman was in fine fettle and his address was an eloquent tribute to improved live stock, to good cattle, to the progressive enterprise of the men who have given to Missouri her splendid reputation among the breeders of America and to the well-known breeders who had consigned stock to this sale. He did all of the block work, and was ably assisted by Cols. C. J. Hieronymus and S. W. Kidd in the ring.

The offering was composed largely of young stuff and many of the animals were too thin in flesh, hence the average given in the summary—while not what the quality of the stock warranted—were considered good by experienced stockmen present. This sale emphatically demonstrated the fact that Sedalia is to be a public sale center for pure-bred stock—with a more favorable time and the stock more carefully fitted, the averages will rank up with the best sales in the country.

Besides the contributors and the buyers mentioned below, the following named prominent stockmen from a distance were present: Chenaunt Todd, Fayette, Mo.; Col. John D. Snyder, Winfield, Kans.; Messrs. Harris & McMahon, Lamine, Mo.; John Koonts, Carthage; Arthur Rhys, Carthage; R. B. Wornall, Kansas City; L. M. Monsees, Smithton; Chas. F. Wadleigh, Green Ridge; E. B. Mitchell, Clinton; R. K. Thompson, Beaman; S. W. Roberts, Pleasant Green; G. P. Grimes, Madison; T. H. Carskadon, Dalton; G. M. Bow-ers, Paris; D. W. Byrne, Keyesville; H. J. Maddox, Plad; Dan Donnohue, Appleton City; A. M. Illias, Hughesville; Ed. Patterson, Buncheon.

The sale was under the management of Chas. R. Gentry, Sedalia, Mo.

Following is a summary of the sale:

8 bulls averaged.....\$128.12

13 females averaged.....\$6.54

21 head, general av.....102.40

A detailed report of the sale follows:

#### C. E. LEONARD & SON'S CONSIGNMENT.

1. Cow, Dr. O. L. Kerr, Independence, Mo.....\$200.00

2. Cow, John Welch, Mussel Fork, Mo.....100.00

3. Cow, Dr. O. L. Kerr.....100.00

4. Bull, J. P. Newell, Carthage, Mo.....295.00

5. Bull, W. H. Rissler, Lamonte, Mo.....75.00

#### N. H. GENTRY'S CONSIGNMENT.

6. Bull, Henry Haub, Whiting, Kans.....\$130.00

7. Bull, Henry Shafer, Sedalia, Mo.....65.00

8. John D. Crawford, Sedalia, Mo.....87.50

#### HARRIMAN BROS. CONSIGNMENT.

9. Bull, Dr. O. L. Kerr.....\$162.50

10. Dr. H. K. Givens, Fayette, Mo.....110.00

#### JUNE K. KING'S CONSIGNMENT.

11. Cow, Walter Morey, Sedalia, Mo.....\$52.50

12. Cow, Dr. O. L. Kerr.....85.00

#### GENTRY BROS. CONSIGNMENT.

16. Cow, Dr. O. L. Kerr.....\$72.50

21. Cow, McFarland Bros., Sedalia, Mo.....70.00

24. Cow, Dr. O. L. Kerr.....	125.00
25. Cow, Dr. O. L. Kerr.....	57.50
27. Cow, Dr. O. L. Kerr.....	77.50
28. Dr. O. L. Kerr.....	47.50
30. Cow, J. F. Butterworth, Se-dalia, Mo.....	62.50
32. Cow, Dr. O. L. Kerr.....	105.00
33. Cow, W. H. Rissler.....	70.00

#### A New Record for Shorthorns.

The pure-bred Shorthorn cow, "Florence Airdrie 6th", owned by the Nebraska Experiment Station, has just the present her milk and butter records which is a leader for cows of this breed. She produced between April 7, 1905, and April 7, 1906, 10,487 pounds milk, 413.01 pounds of butter-fat, and 481.84 pounds of butter. Her average test was 3.94, and she was with calf during the last six months of her lactation.

Florence was purchased from Mr. William Ernst, of Tecumseh, Neb., on April 20, 1903, and from that date to the present her milk and butter records are as follows:

Year	Milk	Butterfat	Butter
1903.....	7537.5	358.51	418.26
1904.....	7112.5	316.03	368.70
1905.....	10487.0	413.01	481.84

Total 3 yrs. 25137.0 1087.55 1268.80

Average for 3 years..... 8379.0 362.51 422.93

She was born June 20, 1898, being now about eight years old and in her prime. If she retains her normal condition, she will, no doubt, produce a still larger record next year. During the three years she has dropped three bull calves and is due to freshen again in July of this year.

#### The Square Deal Poland-Chinas.

Mr. Wm. D. Calder, owner of the Square Deal Stock Farm at Bancroft, Kans., has just added a new herd boar that ought to prove a corker. This is Calder's Chief by Garver's Choice by Kansas Chief, the boar that became famous as the head of C. M. Garver's herd at Abilene. There is not enough of Kansas Chief's blood among the Poland-China herds of the West, and we are glad to know that Mr. Calder has secured one of his best grandsons as herd-header. Later Mr. Calder will have some litters in his pens by this young boar, and it will pay to keep an eye on them.

Mr. Calder has for sale now two good young boars that ought to make money for some one. They were sired by Square Deal 36749 and out of Daisy Calder 87343, who is a daughter of Calder's Perfection 33581, a great grandson of old Chief Perfection 2d. Daisy Calder's dam was Black Beauty 73707 by Shawnee Chief 28502. That pedigree is good enough for any one. The advertising card of The Square Deal Stock Farm is on page 478.

#### Mail Bids at Public Sales.

It is a matter of surprise and wonder that the small breeders and farmers do not take more interest in the public sales of pure-bred hogs now being held in various parts of this and other States. Now is the time when herd-headers are needed and if the farmer finds it impossible to attend any of these sales he can always send his bid by mail. A small bid placed in the hands of a competent auctioneer or fieldman will sometimes secure a choice animal at a bargain.

One of THE KANSAS FARMER fieldmen recently carried to a sale of pure-bred hogs a limit bid of \$30 for a boar. His instructions were to use his best judgment and secure a hog worth the money. He was able, through his experience, to fill this order for \$19, for which price he secured the best boar pig in the entire offering, though many sold for double that sum or nearly so.

A competent auctioneer or a qualified fieldman is, in very many cases, better able to select good animals and to pick out the bargains than is the farmer who is less familiar with such matters. A mail bid in good hands is safe and practically as good as a personal bid in securing good animals at public sales.

#### Hebrew's Hog Sale.

One of the successful hog sales held this spring was that of J. A. Hebrew, of Stockton, Kans. Mr. Hebrew is one of the substantial farmers of Rooks County. He has a fine herd of Poland- (Continued on page 474.)

## HORSE'S SORE SHOULDERS CURED FREE

Name your Dealer and this Paper and we will mail you a

FREE SAMPLE

## SECURITY GALL CURE.

Cures sore shoulders, necks or backs while harnessed or idle. SECURITY REMEDY CO. Minneapolis, Minn.



## Home Departments

CONDUCTED BY RUTH COWGILL.

### The Heart of the Hills.

There's a wonderful country lying  
Far off from the noisy town,  
Where the wind flower swings,  
And the song-bird sings,  
And the tumbling brooks come down—  
'Tis a land of light and of laughter,  
Where peace all the woodland fills;  
'Tis the land that lies  
Neath the summer skies  
In the heart of the happy hills.

The road to that wonderful country  
Leads out from the gates of care;  
And the tired feet  
In the dusty street  
Are longing to enter there;  
And a voice from that land is calling,  
In the rush of a thousand rills—  
"Come away, away,  
To the woods to-day,  
To the heart of the happy hills."

Far away in that wonderful country,  
Where the skies have deepest hue,  
In the shadows cool,  
By the foaming pool,  
We may put on strength anew;  
We may drink from the magic foun-  
tains  
Where the wine of life distills;  
And never a care  
Shall find us there,  
In the heart of the happy hills.  
—Boston Transcript.

### The Two Pictures.

I have before me two pictures, one "the Shepherdess" by Millet. She is a peasant girl watching her sheep. She stands, hooded and cloaked, her crook leaning against her while her eyes are bent upon the knitting that her hands are doing. Her whole attitude portrays anything but joy. The countenance is sad and dejected. She sees not the beauty all around her. She is probably bemoaning her hard lot. She is not typical of toil, but of drudgery. The other picture is "The Song of the Lark" by Breton. It also is a picture of a peasant girl. She has her sickle in her hand going forth to reap in the field. She is a strong, joyous country girl listening to the song of the lark. Her head is up and her whole attitude bespeaks a happy, contented spirit. This picture makes me think of work, the work that makes one happier, better, and healthier. This is not drudgery. Work is one of the greatest blessings to mankind. The men and women who have health and ability to push their work before them and see it move in order and system ought to be the happiest people on earth. Work is noble and was ordained of God. Drudgery is slavish, and work becomes such when it is irksome and one is driven to it. Housework is both healthful and pleasant if done with moderation, taking time to enjoy the beautiful things as they come along. The first picture spoken of represents the busy woman who needs to do two things at once. While she tends the sheep she must knit—but knitting may be done without keeping the eyes constantly upon it. She might see the beauty around her and enjoy God's sunshine, thanking Him for health and ability to do what she must instead of repining her hard lot. Life is indeed to a great extent what we make it, and after all, happiness does not depend so much upon circumstances. It comes from within. It is one of woman's duties and privileges to be happy and cheerful, but if she were dependent entirely upon outside circumstances it would often be a difficult of attainment.

In the routine of housework it is hard not to bury one's self in the work, to be so absorbed with it all that one is lost to everything else and half the joy of life is lost. I know there are the three meals a day to be prepared, dishes to be washed, sweeping and dusting and a thousand and one other "little things," and then there is the ever present sewing to be done. John and Mary and Jack and Jane must have clothes. But while these things are to be done let us take them up one at a time as if each were the only thing, taking time as the day glides along to enjoy everything that comes along. Like the young girl in the second picture, let us go about our work with a song in the heart and a light in the eye and be master of the situation and "not like dumb driven cattle." The only way to enjoy life is to get pleasure every hour as we pass along. We go this way but once. Like the busy bee, let us take the sweets as we come to them from the thistle blossom as well as from the rose. Many make the mistake of living in the future thinking when the children are grown up they will have time for this or that, or when the mortgage is paid off, or the quarter section is paid for they will take more time to read or enjoy some coveted pleasure. That is a mistake.

Every year brings its duties. It is only a mirage that allures. When the children are around you with their innocent prattle and unaffected love is one of the sweetest times of life. Think not of the bother and care. Enjoy them while you may. Be to them a companion and chum, for the time is fast fleeting when you may enjoy this pleasure, and you can only look back with regret. A contented, satisfied mind is necessary to happiness in one's work. President Roosevelt was buried in the midst of a pile of work when a friend happening in asked him how he could stand such a strain. He answered with a look that showed that he meant it, "Oh, I like my job." That is the secret of his wonderful ability to accomplish so much and his endurance. I think as a rule the country women are the most contented and happy of any, and can say with zest and earnestness, "I like my job." Their environments are such as tend to make them happy. They are away from the hurry and rush of city life and escape many of the complexities of living that come to women who live in the city. They may live the simple life in which is true enjoyment. They can get so close to nature, which is so restful, and to nature's God, which is peace.

What is it then that turns toil into drudgery? It is not hardship. It is not because it is routine and must be repeated over again and again, nor has physical inability anything to do with it. It is because it lacks soul, interest, thought, and love. If our work is drudgery it is because we make it so.

### Care of the Teeth.

"A pearl in the mouth is worth two on the neck," is an up-to-date adage which women would do well to ponder over. A woman of many charms will often fall of impression if the teeth are not delicately clean and whole.

There are many factors which go to determine the soundness of one's teeth, but none more potent than that of use. Good, vigorous action is necessary in order that a supply of blood may be called to the teeth to nourish them. Give a muscle no exercise and the veriest novice knows it will get soft. Give the teeth no work and they become chalky and an easy prey to decay.

Too much cooking of food and the use of soft, prepared dishes have had much to do with getting people out of the habit of chewing. Those who live on coarse foods requiring thorough mastication have the perfect teeth of animals, white and hard and even. The blood supply is perfect on account of the stimulation given by thorough exercise of the jaws.

The higher the civilization, the worse the teeth. For not only do people eat food which is too greatly refined to require chewing, or soft and mushy from over preparation, but they also eat sweets and condiments, and worst of all, perhaps, they overeat.

"The use of sugar," said a dentist whose reputation is world wide, "is bad in two ways. It not only promotes fermentation in the mouth, but it creates a false taste, which will have to be satisfied with other things equally detrimental and unneeded. And they who eat more food than necessary never can have a naturally cleansed mouth, for the saliva is provided to dissolve perfectly only the food the body needs."

"For the many who do not or can not regulate their habits so that their teeth are kept naturally in good condition, there are many simple helps which do much to counteract any bad tendencies. Cleanse them thoroughly with a plain preparation of chalk and orris root, using tepid water and a stiff brush. This should be done after every meal. At least once a day examine them thoroughly with the aid of a mirror to make sure that they are properly freed from all food particles. When you are having dentistry done, be sure to see that a space is left between the teeth sufficient to allow you to pass dental floss (common sewing silk will do) back and forth to dislodge any food that may get in. A good dentist should see to this, and also that there are no jagged edges to break and cut the silk and prevent its free movement. But the mouths of nine out of every ten people who have had extensive work done show an opposite condition of affairs."

"The necessity for clean teeth at night should be especially borne in



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These elegant, stylish and up-to-date shoes are made of the finest leather. They are built over "foot form" lasts that insure a perfect fit and are guaranteed to wear better than most shoes sold at higher prices. Every piece of material used is honest. The workmanship is perfect; style correct.

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Let your next pair of shoes be "Honorbilt." Your shoe dealer will supply you. If he refuses write to us. See that the name "Honorbilt" and Mayer trade-mark appear on the sole. It is a guarantee of quality. We make the "Western Lady" and the "Martha Washington Comfort Shoes."

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**DESCRIPTION**—Selected second growth hickory wheels and gears; Norway iron clips and bolts; inch axle double collar, full length body loops, long body, any width. Solid spring bellows back; sanitary spring cushions. Trimmings in dark green, tan or maroon leather, cloth or plush. Ideal spring cross bar in place of wooden cross bar if preferred. All wool top lining, leather quarters and back stays, curved top joints if desired, complete with storm apron, side curtains, boot and full length carpet. Nickel dash rail, hand rail and lary back rail. Send for Big Free Catalogue of Vehicles and Harness in colors. A buggy factory selling direct must pay all of their expenses, salaries, etc., out of a few thousand buggies. Our expenses are all paid out of our agricultural implement factory. A buggy factory would starve to death on the small profit we get on a buggy. Write us before buying. The only plow factory in the world selling direct to the consumer at wholesale prices.

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mind. This will prevent the growth and development of micro-organisms in the mouth. These are generated most rapidly during sleep, while the person is quiescent. They cause putrefaction and decay of the teeth.

"When teeth require filling they are often acutely sensitive on account of high acidity of the saliva, and very great pain results from any work done on them. This may be largely obviated by the use of an alkaline wash in the mouth for two or three weeks previous to a visit to the dentist. A tiny pinch of common baking soda, bought at a druggist's to insure purity, is dissolved in a quarter of a glass of water and used to rinse the mouth thoroughly night and morning."—New York Tribune.

### Laundry Hints.

To Bleach Table Linen.—Javelle water, in peach time of all others, is a necessity. It will take out the old stains in table linen that were overlooked when the clothes were sent to the laundress. Besides this, it will whiten the handkerchiefs yellowed by perspiring faces and hands. To make it, dissolve half a pound of sal-soda in a pint of boiling water. In another dish dissolve a quarter of a pound of chloride of lime in a quart of boiling water. Pour the two together, stir, settle, and turn off the clear liquid, leaving the settings. Keep in a tightly corked jug in a dark closet.—New York Sun.

To Clean Lace.—Baste the lace to a piece of white flannel with short stitches, and as near the edge as possible; then baste across the piece several times each way, and wind the strip of flannel around a smooth glass bottle. Stand the bottle or lay it in a warm suds of rain water and some good washing powder, and dip it up and down and about until it looks perfectly clean; then rinse in warm, clear water and put it out to dry in the sun. I have seen some beautiful Battenburg collars and muslin ties with lace edges washed thus.

To remove a vinegar, wine, or a fruit stain from a white linen cloth, the following will be found effectual: Hold the stained parts in boiling milk and the stains will be found to quickly disappear.

If a spoonful of borax is put into the last water in which white clothes are rinsed, it will whiten them very much. The borax should be dissolved in a little hot water before it is added to the rinsing water.

**BARGAINS** Chinaware Sets, \$2.80 to \$12  
Clothes Wringers, new, \$1  
25 Pieces Table Cutlery, good plate, \$2.50  
Sure-Cutter Shears and Scissors, 2 pairs, \$1.00  
Wade & Butcher Razor Strap and Bone, \$1.00  
\$1.00 box Medicated Toilet Soap, \$35 cts  
Headquarter for Watches, \$75 cts. to \$18.00  
Black Gloss Buggy Paint, gallon, \$1.50  
Gasoline Stoves, 2 burners, \$2.75  
Poultry and Stock Foods, packet, \$15 cts  
Cigars, per 100, \$1.50 to \$2.50  
Washing Machines, none better, \$3.25  
Send for Catalogue of many snap bargains.  
Agents wanted. New Process Mfg. Co., Dept. 50, Lincoln, Kans.

## You Will Prosper in the great, growing Southwest

If you purchase a farm in the Southwest now, while the land is cheap, you will soon see grow up around you a community of prosperous, energetic men, who like yourself, have seen the possibilities of the Southwest, and have taken advantage of them. This very condition, which is rapidly forming all over the Southwest, is making the value of land increase rapidly, to the certain profit of those who own it.

There are more and better opportunities for making money—for home building, in the Southwest—along the line of the Missouri, Kansas & Texas Railway to-day, than anywhere else. You have only to get on the ground to prove this. If you are in any way interested in the Southwest, write to-day for a copy of my new paper "The Coming Country."

### Go Southwest Now

Take advantage of the homeseekers' rates, April 17th and May 1st and 15th, and go and see the country for yourself. On above dates most lines will sell both one-way and round trip tickets at exceptionally low rates. If your nearest railroad agent can not give you the rates, write me for particulars.

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added to each pailful of rinsing water. Use gum arabic water instead of starch for black cottons. This gum arabic water is used to freshen muslins of all colors which have become limp. Sprinkle the gown and turn it wrong side out while drying. Sprinkle with clear water and iron on the wrong side.

A tablespoonful of sal-soda, over which boiling water is poured, is recommended for taking stains off coffee pots. With this treatment no boiling is necessary.

Scraps of soap too small to be used any other way may be saved in a can and cut up and used in the boiling water to boil the clothes.

The state of the irons has much to do with the success of the ironing. When the irons show a tendency toward rusting or black specks, it is time that they are washed in soap suds. Dry them carefully after this washing. Sandpaper is a good thing to have at hand when irons become sticky with starch. Rubbing an iron once or twice across the sandpaper will render it smooth again. If the sandpaper is lacking dry salt on a piece of paper will answer the same purpose. Flatirons should not be left where the steam of cooking can reach them, as that causes them to rust. Always set the irons away on end rather than flat on the shelf. Those which have once been allowed to grow red hot never retain the heat so well afterward.

## The Young Folks

### Robin.

Rollicking Robin is here again,  
What does he care for the April rain?  
Gare for it? Glad of it! Doesn't he  
know  
That the April rain carries off the snow,  
And coaxes the leaves to shadow his  
nest,  
And washes his pretty red Easter vest,  
And makes the juice of the cherry  
sweet,  
For his hungry little robins to eat?  
"Ha! ha! ha!" hear the jolly bird laugh,  
"That isn't the best of the story by  
half!"

Gentleman Robin, he walks up and  
down,  
In orange-tawny and black and brown,  
Though his eye is so round and his  
steps so firm,  
He can always stoop to pick up a worm.  
With a twist of his head, and a start  
and a hop,  
To his robin-wife in the peach-tree top,  
Chirping his heart out, he calls, "My  
dear,  
You don't earn your living! come here!  
come here!  
Ha! ha! ha! Life is lovely and sweet;  
But what would it be if we'd nothing  
to eat?"

Robin, Sir Robin, gay red-vested  
knight,  
Now you have come to us, summer's in  
sight,  
You never dream of the wonders you  
bring,  
Visions that follow the flash of your  
wing,  
How all the beautiful by-and-by  
Around you and after you seem to fly!  
Sing on or eat on, as please your mind!  
Well have you earned every morsel you  
find,  
"Aye, ha! ha! ha!" whistled Robin;  
"My dear,  
Let us all take our own choice of good  
cheer."

—Lucy Larcom.

### Fleetfoot; the Autobiography of a Pony.

#### CHAPTER VII.—THE SCHOOLHOUSE BY THE ROAD.

It would be hard to describe the children's delight and pride that September morning, the opening day of school, when I, hitched to a rubber-tired buggy, dashed up in front of the little red building with its wide open doors facing the roadside. We were greeted by various kinds of shouts from the large group of children which had congregated in the tidy school-yard. A chorus acclaimed, "Hurrah for the pony! He's a blue racer!" and when Marcella alighted with books and dinner-basket, as many boys as could hang on to any part of the buggy clamored for a ride in our gorgeous outfit.

We started down a lane which wound in and out among tall hedge-trees. Although Lyall was considered a fluent talker at home he now made only a feeble effort to answer the deluge of questions which poured over him. "What is the pony's name? Just Pony! Why didn't you call him Beauty or Quickstep? Can he pace? Who broke him? Does he belong to you or Marcella? Why don't you make him go faster when you know he can? Are you going to buy another like this one? Will you sell this one?" These are only a few of the queries of which I was the subject and I do not know how many times the list would have been doubled had there not come all at once the clear tinkle of a bell, at which signal I was immediately turned in my course and

urged to use my best paces in the direction of the house of knowledge. As I bounded along I could hear the excited conversation of the lads behind me. It seemed that in the panic a couple of the smaller ones were crowded out and fell by the wayside. The others, not having the love-your-neighbor spirit in their hearts just then, did not lose any time in picking them up, but continued to plead with me for a more rapid gait.

"The teacher looks cross and she'll give us the rod before she even knows our names," remarked one little fellow breathlessly, and another answered him quickly, "You bet she won't whip me when she hears my name. My pa's director."

"That don't make any difference," chimed in a third; "she told Uncle Glace that she wasn't goin' to have any picks."

"Did she mean tooth-picks?" was the surprised query from Lyall.

"Oh, no, it's favorites. Director's kids and things like that."

Further comment was prevented for the time being for we were now in the school-yard not very far from the yawning doors, through which filed a decorous row of small girls with short dresses and long braids.

Marcella was among them, and I noticed that as she passed she threw an uneasy glance in our direction. From around the corner at full speed came a dozen or more lads with arms swinging wildly and disheveled heads pushed forward. As great as was their haste, one little chap, still indignant from having been denied a ride, took the opportunity to whisper spitefully to Lyall and his companions, "You'll catch it, smart Alecks, you will."

Frenzied by this cruel prophecy, the guilty ones flung my lines and hitching strap to the ground and with a few frantic leaps landed on the topmost steps. To their consternation they suddenly encountered the new teacher in the doorway, but instead of fiercely upbraiding them as they had expected, she smiled and put out a detaining hand.

"It isn't quite nine o'clock yet," she said, "and I think you will have time to unhitch the pony. It would be a good plan to take the harness off, too, and pump that bucket full of water at the well. The little thing will need a drink. How very warm it looks!"

One of the boys answered a husky, "Yes, ma'am," and Lyall was so much relieved that I don't believe he knew what he said when he exclaimed, "Thank you very much." Those two then took me in charge and while they relieved me of the harness, and placing it in the buggy, backed the vehicle under the shade of a near-by tree, they recovered their self-possession almost to the extent of bravado. Neither one, according to his own statement, had been in the least afraid of the new teacher but had pretended to be in order to frighten each other and the "kidsets" (the euphonious name by which the younger pupils were sometimes known).

I was set free and walking around the yard in less time than it takes to tell it, and now while Lyall is pumping a drink for me we might take a glance at his "chum."

His name was Archibald Lamb, but his brilliant schoolmates chose to designate him as "the bald lamb."

In appearance as well as in name he was lamblike, being pale-faced, mild-eyed and innocent looking, but here the resemblance ended, for he was strong and wiry and was far to the front in all the energetic sports in which the boys engaged. Since Archibald was captain and leader of every game, Lyall was obliged to take second place, but the latter was never envious or resentful, for he was very proud of his chum who was a year older than himself.

On this particular day which I have in mind, I followed Lyall and Archibald to the schoolhouse door, and as they took their places in the second seat I drew back in such a way as to see all that was going on, without myself attracting any notice.

I am not sure that I was not biased in the new teacher's favor, but I believe to this hour that she was a very lovely person. I can not tell just how it was but she showed such interest and confidence in us all that we were willing to learn and eager to please.

On this first day of school she went from one desk to another asking in a clear, soft voice the names and ages of her pupils. When she came to Lyall's chum a suppressed tittering could be heard distinctly. A look silenced the hilarious band, and when the room was so still you could hear the buzzing of a belated fly, the teacher said very kindly to Archibald, who was

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Remember these points: Cover the whole floor—it's warmer, and easier to take care of; can be used on both sides, a great saving. LOWELL INGRAINS are made that way; can be had in newest styles and colors, just like high grade carpets. If it is wound on a hollow stick, it's a genuine LOWELL INGRAIN.

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The Santa Fe is the line of fast trains, modern and comfortable chair cars and luxurious Pullmans, Harvey meals, rock-balasted track, block signals.



N. B.—Members of the Mystic Shrine and delegates to National Congress of Mothers, both to be held in Los Angeles between May 7 and 11, should take advantage of this offer. Descriptive folder free.

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TOPEKA BUSINESS COLLEGE, Topeka, Kans.



By this time quite rosy in the face. "Write your name, dear, and your age." He told the youngsters at recess that if it had not been for their mockery he would not have had the distinction of being the first one called "dear" by the new teacher, whereupon they twitted him as the first "deer" and the only "lamb" in the school.

That day dragged on to its close as did many others which followed, and as far as any outward sign revealed, they were all passed in much the same manner. But, in truth, great changes were going on in the young minds, new ideas were born, noble ambitions took root and flourished under the guiding hand of the young school-mistress who was not the "new teacher" any more, but the loved and trusted friend of all the pupils, without even the exception of the proverbial "bad boy."

### The Little Ones

#### On Arbor Day.

"I wonder," said the little nut, "What I am going to be!" The sunshine whispered overhead, "You'd better grow and see!" He sent two tender leaflets up. Amidst the crowding grasses, "It's stuffy underground!" he cried. "Please won't you let me pass?" Then Robbie saw him standing there and carried him away. "I've found the dearest thing," said he; "My tree for Arbor Day!" He'll need a long, long time to grow, He's very small, you see; But by the time that I'm a man He'll make a splendid tree! Perhaps then I'll be President—I wonder what I'll be!" The sunshine whispered low to both, "You'd better grow and see!" —Hannah G. Farnald, in Youth's Companion.

#### An Essay on Girls.

WRITTEN BY A GIRL TEN YEARS OLD.

Girls always want to have their own way, and sometimes they tease until they get it, but most of them get a whipping for teasing. Other times little girls have some little toys, and some other little girls come to play with them. They want to have all the toys themselves. Girls always want to play and when their mothers want them to come and wash the dishes or dry them or take the baby, they say "just in a minute," and when the minute is up, they say "just in a minute," till their mothers have to make them come. When mamma wants her girl to come and take the baby till she puts the bread in the oven and hunts the eggs, the little girl slips around and puts the baby in her papa's arms and slips out to play. Girls throw snowballs, wash each other's faces with snow and have a good time, but when mammas say "Come and wash your hands and face with soap and water," it's "O, I'm clean enough. I washed my hands and face with snow." But mammas say "The snow is not clean." But little girls say "O, let me go this time. I don't like to wash before every meal, and sometimes wash two or three times extra." But mammas say "That only keeps you clean." But girls say "Let me go dirty one day." But mammas say "What if some one comes and sees your dirty hands and face?" "O, I could run in the room and wash myself, and when I come out I would be clean." Girls have to bring the cows in and sometimes milk them. They have to drive the chickens out of the garden and hoe the tomatoes and all such work. ETHEL G. CATHCART.

Rooks County.

#### Marriage Maxims.

Never marry except for love.  
Never taunt with a past mistake.  
Never allow a request to be repeated.  
Never meet without a loving welcome.  
Never both be angry at the same time.  
Never forget to let self-denial be the daily aim and practice of each.  
Never let the sun go down upon any anger or grievance.  
Never neglect one another; rather neglect the whole world besides.  
Never make a remark at the expense of the other—it is meanness.  
Never be "stubborn," but let each strive to yield oftenest to the wishes of the other.  
Never part for a day without loving words to think of during absence.  
Never find fault unless it is perfectly certain that a fault has been committed, and always speak lovingly.  
Never let any fault you have committed go by until you have frankly confessed it and asked forgiveness.  
Never forget that the nearest approach to perfect domestic happiness on earth is the cultivation, on both sides, of absolute unselfishness.

### Club Department

#### OFFICERS OF THE STATE FEDERATION OF WOMEN'S CLUBS.

President.....Mrs. May Belleville Brown, Salina  
Vice-President.....Mrs. L. H. Wishard, Iola  
Cor. Secretary.....Mrs. N. I. McDowell, Salina  
Rec. Secretary.....Mrs. W. D. Atkinson, Parsons  
Treasurer.....Mrs. H. B. Asher, Lawrence  
Auditor.....Mrs. Grace L. Snyder, Cawker City

#### Our Club Roll.

Women's Literary Club, Osborne, Osborne County (1902).  
Women's Club, Logan, Phillips County (1902).  
Domestic Science Club, Osage, Osage County (1888).  
Ladies' Crescent Club, Tully, Rawlins County, (1902).  
Ladies' Social Society No. 1, Minneapolis, Ottawa County (1888).  
Chalitto Club, Highland Park, Shawnee County (1902).  
Cultus Club, Phillipsburg, Phillips County (1902).  
Literature Club, Ford, Ford County (1903).  
Sabean Club, Mission Center, Shawnee County Route 2 (1899).  
Star Valley Women's Club, Iola, Allen County (1902).  
West Side Forestry Club, Topeka, Shawnee County, Route 8 (1903).  
Fortnight Club, Grant Township, Reno County, (1903).  
Progressive Society, Rosalia, Butler County (1903).  
Pleasant Hour Club, Wakarusa Township, Douglas County (1899).  
The Lady Farmer's Institute, Marysville, Marshall County (1902).  
Women's Country Club, Anthony, Harper County.  
Taka Embroidery Club, Madison, Greenwood County (1902).  
The West Side Study Club, Delphos, (1902).  
Prentiss Reading Club, Cawker City, Mitchell County (1903).  
Cosmos Club, Russell, Kans.  
The Sunflower Club, Perry, Jefferson County (1903).  
Chaldean Club, Sterling, Rice County (1904).  
Jewell Reading Club, Osage County.  
The Mutual Helpers, Madison, Kans. (1906).  
West Side Study Club, Delphos (1906).  
(All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.)

#### FAMOUS WOMEN.

##### Hannah More.

Roll-call—Quotations from Hannah More.

I. Her early life.  
II. The philanthropist.  
III. The literary woman.  
IV. Female education.  
I. Hannah More's early life embraced a great deal. Before she was thirty she had accomplished more than ordinary people have at fifty or perhaps it would not be extravagant to say seventy-five. She studied Latin when eight years old and before she was eighteen she had attracted attention by her verse. The first thirty years of her life were the most brilliant, but not the most useful. She was talented, beautiful, and brilliant, surrounded by a host of famous and gifted friends.  
II. Although she was petted and flattered during her early life she was not spoiled. After she was about forty she almost abandoned fashionable life. She found it frivolous, vain, and even dull. She turned her mind and heart to the poor and the rest of her life was spent for their betterment. She wrote for the poor, raised money for them, instituted schools and churches for them—in short spent her life for them.  
III. Hannah More was a writer of verse but her fame rests on her writ-

If you will eat more

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you can do more work, enabling you to earn more money, so that you can buy more

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do more work and earn still more money.

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A copy of this book will be sent free upon request

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The dandelion pest has had its day. For one dollar you can get an instrument that can be used by women and children as well as men that will pull dandelions and other noxious weeds at the rate of one thousand an hour, and leave not a drop of dirt nor a visible tear in the sod. No stooping nor bending and is a pleasure not a task to operate it; delivers automatically the weeds pulled, and your hands are not soiled, nor your back tired, no grunting nor humping around to do your work. Pulls any dandelion or weed when tap root does not exceed 16 inches in length. Send one dollar and we will deliver free at your door.

**The Standard Incubator Co.** PONCA, NEBRASKA

ings as a moralist and educator. Her "Search After Happiness" went through six editions before she was thirty. Something about her as a writer with selections from some of her productions will prove very interesting.

IV. Under this subject is a chance for some one to express her views on the education of girls. Shall she be educated so as to be able to support herself or to be best fitted to perform the duties of wife and mother? Shall she be educated for usefulness or for admiration? Hannah More's ideas on this subject would be of interest.

#### Some New Pictures.

The new French collection recently added to the Traveling Art gallery of the State federation has been in use since February 1, and is by far the most popular, as it is the best understood of all the collections. It contains 78 pictures and in these one can trace the progress of French art from its early Italianism through its different stages—classic, romantic, realistic, etc., down to modern times. There are six pictures by Millet, four by Corot, Bonheur, Breton, Bouguereau, and Dagnan Bouveret, two especially fine ones by Bonnat, Jerome, Meissonier, Schefer, and others.

It is a good idea for clubs wishing to secure collections for study or exhibition purposes to order now for next year, as the routes can be arranged so as to make express charges light when this is done.

## The Grange

"For the good of our Order, our Country and Mankind."

Conducted by George Black, Olathe, Secretary Kansas State Grange, to whom all correspondence for this department should be addressed. News from Kansas Granges is especially solicited.

#### NATIONAL GRANGE.

Master.....N. J. Bachelder, Concord, N. H.  
Lecturer.....Geo. W. F. Gaunt, Mullica Hill, N. J.  
Secretary.....C. M. Freeman, Tippecanoe City, Ohio

#### KANSAS STATE GRANGE.

Master.....E. W. Westgate, Manhattan  
Overseer.....A. P. Beardon, McLouth  
Lecturer.....Ole Hibner, Olathe  
Steward.....R. C. Post, Spring Hill  
Assistant Steward.....Frank Wiswell, Ochiltree  
Chaplain.....Mrs. M. J. Ramage, Arkansas City  
Treasurer.....Wm. Henry, Olathe  
Secretary.....George Black, Olathe  
Gatekeeper.....J. H. Smith, Lone Elm  
Ceres.....Mrs. M. L. Allison, Lyndon  
Pomona.....Mrs. S. M. Pinney, McLouth  
Flora.....Mrs. S. J. Lovett, Larned  
L. A. S.....Mrs. Lola Radcliffe, Overbrook

#### EXECUTIVE COMMITTEE.

O. F. Whitney, Chairman.....Topeka, Station A  
E. W. Westgate.....Manhattan  
George Black, Secretary.....Olathe  
Henry Rhoades.....Gardner  
J. C. Lovett.....Buoyrus

#### STATE ORGANIZER.

W. B. Obryhim.....Overbrook

#### Shawnee County Pomona Grange.

Shawnee County Pomona Grange was called to order at Berryton Hall at 2 p. m. by Worthy Master Sims. The following newly elected officers were then installed: Master, H. H. Wallace; overseer, W. L. Staples; lecturer, O. F. Whitney; secretary, L. Mabel Waters.

Dr. N. J. Taylor offered the following resolution: "That in our township affairs party politics be ignored." A motion was then carried, that this grange recommend the elimination of party caucuses. Brother Whitney introduced the subject of the Boys' Corn-Growing Contest and the prizes that have been offered. He also asked that a representative of each grange state at the next Pomona grange meeting what is most needed in legislation.

The secretary was then instructed to find out the number of members wishing to take the fifth degree.

On motion an organization committee consisting of one from each grange was appointed as follows: Brothers, J. S. Longshore, Lund, Firestone, Poltom, Boyles, Brobst.

The Worthy Master stated that the next meeting will be held on the first Tuesday in June, at Indian Creek. **L. MABEL WATERS, Secretary.**

Passengers east from Chicago to Fort Wayne, Findlay, Fostoria, Cleveland, Erie, Buffalo, New York City, Boston, and all points east, will consult their interests and find advantage in selecting the Nickel Plate road east from Chicago. Three through trains are run daily, with through day-coaches to New York City, and modern Pullman sleeping-cars to destination. Rates always the lowest, and no excess fares are charged on any train, for any part of the journey. Modern dining-car service, with individual club meals, ranging in price from 35 cents to One Dollar; also meals a la carte. Ask for tickets via the Nickel Plate Road. Chicago depot, La Salle and Van Buren Streets, the only station in Chicago on the Elevated Loop. Chicago City Ticket Office, 111 Adams Street. Detailed information may be secured by addressing John Y. Calahan, General Agent, No. 113 Adams St., Room 298, Chicago.

# WORKING WOMEN

Their Hard Struggle Made Easier—Interesting Statements by a Young Lady in Boston and One in Nashville, Tenn.



All women work; some in their homes, some in church, and some in the whirl of society. And in stores, mills and shops tens of thousands are on the never-ceasing treadmill, earning their daily bread.

All are subject to the same physical laws; all suffer alike from the same physical disturbance, and the nature of their duties, in many cases, quickly drifts them into the horrors of all kinds of female complaints, tumors, ulceration, falling and displacement or perhaps irregularity or suppression, causing backache, nervousness, irritability and lassitude.

They especially require an invigorating, sustaining medicine which will strengthen the female organism and enable them to bear easily the fatigues of the day, to sleep well at night, and to rise refreshed and cheerful.

How distressing to see a woman struggling to earn a livelihood or perform her household duties when her back and head are aching, she is so tired she can hardly drag about or stand up, and every movement causes pain, the origin of which is due to some derangement of the female organism.

Miss F. Orser, of 14 Warrenton Street, Boston, tells women how to avoid such suffering; she writes:

Dear Mrs. Pinkham:—  
"I suffered misery for several years with female irregularities. My back ached; I had bearing-down pains, and frequent headaches;

I could not sleep and could hardly drag around. I consulted two physicians without relief, and as a last resort, I tried Lydia E. Pinkham's Vegetable Compound, and to my surprise, every ache and pain left me. I gained ten pounds and am in perfect health."

Miss Pearl Ackers, of 327 North Summer Street, Nashville, Tenn., writes:

Dear Mrs. Pinkham:—

"I suffered with painful periods, severe backache, bearing-down pains, pains across the abdomen; was very nervous and irritable, and my trouble grew worse every month. My physician failed to help me and I decided to try Lydia E. Pinkham's Vegetable Compound. I soon found it was doing me good. All my pains and aches disappeared, and I no longer fear my monthly periods."

Lydia E. Pinkham's Vegetable Compound is the unfailing cure for all these troubles. It strengthens the proper muscles, and displacement with all its horrors will no more crush you.

Backache, dizziness, fainting, bearing-down pains, disordered stomach, moodiness, dislike of friends and society—all symptoms of the one cause—will be quickly dispelled, and it will make you strong and well.

You can tell the story of your sufferings to a woman, and receive helpful advice free of cost. Address Mrs. Pinkham, Lynn, Mass. The present Mrs. Pinkham is the daughter-in-law of Lydia E. Pinkham and for twenty-five years she has, under her direction and since her decease, been advising sick women free of charge.

**Lydia E. Pinkham's Vegetable Compound Succeeds Where Others Fail.**

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**W. F. RIGHTMIRE, - 216 The Drive, - Topeka, Kansas**



## Miscellany

## Coburn on Crop Prospects.

On last Saturday the Kansas State Board of Agriculture issued a report based on a careful canvass of the growing winter wheat situation in practically every neighborhood, as returned by the wheat-growers themselves after critical examination of their fields on Wednesday, April 18.

Last year's winter wheat area was 5,335,237 acres; in December the growers reported the sowing for this year's crop as probably somewhat larger, and approximating 5,900,000 acres. Of this it is now reported that nearly 10 per cent has been plowed up or its wheat estimated as of no value. The condition of the remainder averages for the State 89.5 per cent, as against the State's averages of 95.4 in 1905; 83.5 in 1904; 97.8 in 1903; and 74 in 1902, at about the same dates. Last December the general average for the State's growing wheat was 80.4. This remaining 5,310,000 acres itself constitutes a mighty field of wheat, and the general recent rains closely following previous snows are strongly encouraging to its vigor and development.

Responding to the query "Are present soil conditions favorable for vigorous growth?" the replies for every county are almost without a single exception "Yes!" The wheat is uniformly backward and small for the time of year, but in the main of good color and thrifty. Seventeen counties report average conditions of 100 or better, and 47 report conditions ranging between 90 and 100, which makes 64 counties with conditions of 90 or above. Twenty-eight have a range between 80 and 90. The highest reported for any one county is 107 in Harper, and the better prospects are invariably found in the eastern half of the State; 23 of the 33 counties in the eastern quarter report not an acre to be plowed up. No injury from insects is suggested by even one reporter. Considerable areas in some of the more prominent wheat-producing counties have been plowed up or abandoned, due principally to lack of seasonable moisture and to winds blowing the soil from the wheat's roots. Notably does this apply to a block of the State's area 80 miles in width, measuring westward from the northeastern corner of Phillips County and extending southward 100 miles from the same point, embracing the 12 counties of Phillips, Norton, Decatur, Sheridan, Graham, Rooks, Ellis, Trego, Gove, Lane, Ness, and Rush. Localities here and there in other counties were similarly affected, especially in Hodgeman, Osborne, and Stafford, and in lesser degree in Russell, Lincoln, Saline, Ellsworth, Barton, Rice, Edwards, and Pawnee. The area of wheat in the counties named aggregated 2,413,464 acres, or over 40 per cent of the total area sown last fall for the State, and of this 20 per cent has been abandoned or plowed up. In the majority of these counties the general circumstances last fall were not propitious for sowing, germination, and growth, and this situation, with later unfavorable developments, was not materially improved this spring until too late. While among these are also reported the less encouraging prospects, their growing wheat is rapidly responding to the present excellent conditions of soil and weather, although much is late and small and in many fields of thin stand.

The late, cool, wet spring has delayed all spring work and has retarded, or in many instances discouraged the sowing of oats, and hence a somewhat larger acreage in corn is expected. This is true especially in the main corn-growing counties in the eastern third of the State, and likely much of the plowed-up wheat fields, especially in the block of twelve wheat counties before referred to, will also be devoted to corn.

The table below shows by counties the probable area of winter wheat sown in each last fall, the per cent estimated plowed up, and the per cent of present condition (based on 100) for the remainder:

Counties	Probable acreage	Plowed up per cent	Condition of remainder per cent
Allen	20,153	0	95
Anderson	9,295	0	98
Atchison	24,212	0	95
Barber	67,665	0	94
Barton	27,289	8	81
Bourbon	10,279	0	100
Brown	30,072	0	100
Butler	13,913	0	98
Chase	4,905	0	97
Chautauqua	4,024	1	90
Cherokee	27,557	13	80
Cheyenne	15,290	10	80
Clark	14,000	1	93

Clay	62,897	0	96
Cloud	80,807	0	97
Coffey	16,408	1	103
Comanche	22,858	6	93
Cowley	68,716	0	95
Crawford	25,886	5	85
Decatur	69,219	32	70
Dickinson	103,570	1	98
Doniphan	23,820	0	100
Douglas	26,530	0	100
Edwards	117,581	8	89
Ellis	166,594	40	95
Ellsworth	124,527	6	76
Finney	9,305	20	85
Ford	94,627	5	90
Franklin	6,847	0	92
Geary	18,484	2	93
Gove	32,596	10	85
Graham	62,991	37	70
Grant	85	0	85
Gray	23,762	25	75
Greenwood	98	0	100
Hamilton	4,801	0	90
Harper	255	0	100
Harvey	158,806	1	107
Haskell	76,727	0	100
Hodgeman	4,962	15	80
Jackson	48,514	20	73
Jefferson	5,487	0	100
Jewell	17,219	0	100
Johnson	41,070	6	95
Kearny	29,313	0	98
Kingman	771	10	85
Kiowa	133,266	1	97
Labette	72,651	4	95
Lane	31,232	5	86
Leavenworth	54,319	22	65
Lincoln	33,578	0	94
Linn	96,666	6	86
Logan	9,061	1	94
Lyon	20,406	0	100
Marion	12,586	2	95
Marshall	75,882	2	95
McPherson	36,302	4	93
Meade	17,728	5	32
Miami	29,028	2	97
Mitchell	17,013	1	93
Montgomery	107,074	1	96
Morris	36,879	2	96
Morton	5,510	0	95
Nemaha	55	25	90
Neosho	6,208	0	100
Ness	22,678	0	99
Norton	115,540	22	70
Osage	47,699	30	85
Osborne	11,517	0	93
Ottawa	102,966	13	81
Pawnee	94,860	2	89
Phillips	193,091	5	86
Pottawatomie	68,560	16	73
Pratt	8,437	0	98
Rawlins	171,213	3	96
Reno	82,085	4	84
Republic	222,458	1	91
Rice	27,846	1	87
Riley	158,499	7	82
Rooks	9,390	1	76
Rush	107,439	32	77
Russell	188,250	46	82
Saline	140,534	9	85
Scott	107,611	2	93
Sedgewick	14,925	0	95
Seward	152,546	37	80
Shawnee	3,270	0	91
Sheridan	6,679	0	65
Sherman	57,883	40	66
Smith	5,786	0	100
Stafford	64,695	3	92
Stanton	201,197	12	86
Stevens	223	25	85
Sumner	837	25	85
Thomas	265,614	1	100
Trego	63,647	7	82
Wabash	70,990	45	65
Wallace	11,117	0	98
Washington	529	5	100
Wichita	47,452	0	100
Wilson	11,908	5	90
Woodson	18,248	2	88
Wyandotte	5,745	1	94
	9,047	0	98

## Portland Cement in Kansas.

BY PROF. ERASMUS HAWORTH, KANSAS STATE UNIVERSITY.

The first Portland cement plant in Kansas was built at Iola by the Iola Portland Cement Company and began operations in 1900; the second one was built at Iola by the Kansas Portland Cement Company and began operations in 1904; the third was built at Neodesha by the Indian Portland Cement Company and began operations in 1905; the fourth was built at Independence by the Western States Portland Cement Company and also began operations in 1905; the fifth one is now building at Table Mound, a few miles northwest of Independence, and will be owned by the Kansas Portland Cement Company.

The first two plants have had their capacity enlarged since first built, which corresponds to building new plants. When the Table Mound plant is completed, the total capacity of the five plants will aggregate about 13 thousand barrels per day.

Portland cement is essentially a silicate and aluminate of lime, although small quantities of iron and other elements are always present. It is made from limestone and shale. In speaking of these materials as found in Southeast Kansas one might say that Portland cement is made of ordinary limestone and shale. This is not true in general. Limestone frequently carries so much magnesium carbonate that it would be worthless for cement production and shale generally carries so much magnesia that it likewise would be worthless. But Kansas is particularly well favored by having these materials in large quantities which do not carry undesirable impurities.

The general processes of manufacture are comparatively simple and easily understood, but there are many details that must be regarded which make the manufacturing process comparatively delicate and difficult. After the materials are quarried they are crushed, dried, and then reduced to a very fine powder technically called

"slurry" which, when mixed into the proper proportions, is passed into the kiln and heated to a state of insipient fusion so that complete chemical action between the different ingredients may take place. The kilns used nowadays are made of boiler iron and vary from 60 to 135 feet in length. Inside of the boiler iron is a lining about 12 inches thick composed of a peculiar kind of fire clay. The kilns are placed in an almost horizontal position and give a rotary motion which helps the material fed in at one end gradually to work through the kiln and out the other end. For this reason the kilns are often called "rotaries."

The material coming out of the kiln is a sort of cinder technically called clinker. After cooling it is passed to a new set of grinding machinery and the process of grinding and pulverizing is repeated practically the same as the first grinding of the raw material. From here it goes to the storage bin and is shipped to market, the commercial unit being the barrel consisting of 330 pounds. Years ago the material was actually put into wooden barrels, but a cotton bag long ago drove the barrel out of the market, although the name is still retained.

The great value of Portland cement depends upon the property Portland cement has of hardening or setting when mixed with water even though it may be entirely submerged. It is not soluble to any considerable extent, but takes up water and thereby hardens in a manner very similar to the hardening of plaster of Paris. A mortar made of Portland cement may be used underground or under water, or in any kind of masonry for brick or stone. When thoroughly hardened it makes practically a solid mass or monolith of the entire masonry.

In Southeast Kansas where natural gas is so abundant and cheap, Nature also provided a great abundance of the best of limestone and shale for making Portland cement. Coal or other fuels may be used, but gas is as good or better. In general a ton of coal will manufacture about ten barrels of cement, the actual amount varying at different mills. With gas at three cents a thousand cubic feet we have an equivalent of coal at from 50 to 60 cents a ton. In localities where coal would cost \$2 a ton, this would be a saving of from 14 to 15 cents a barrel, an amount sufficiently great to pay freight on shipping the cement a long distance. Kansas gas-burned cement is now shipped as far north as Iowa and Minnesota, as far east as the Mississippi, and south and west to the Gulf and the Pacific Ocean.

## A Correction and Explanation Concerning Parasites.

EDITOR KANSAS FARMER:—Please make a correction to an error in the printing of my article entitled "An Important Enemy of the Hessian Fly and Other Parasites," which appeared in your paper of April 12. The sentence which is printed wrong reads as follows: "With the hymenopterous parasites, the female selects her victim usually when she is in the larval or worm stage, etc." This gives an entirely wrong sense and involves a point that I endeavored to make especially clear. If my manuscript had been followed accurately, the reading would have been thus: "With the hymenopterous parasites, the female selects her victims usually when they are in the larval or worm stage, etc."

For further explanation, I might mention that the female parasite (she would be in the adult or winged form to become a parent), does not harm her victims beyond laying her eggs on them. Then her mission in life is fulfilled and both males and females perish shortly after the mating period. The young parasites which issue from the eggs in the form of grubs are the creatures which feed on the host. Only during the time they remain as grubs, otherwise called the larval stage, are these parasites effective. Then they subsist within the body of some caterpillar, or grub, or maggot, sometimes inside the egg, cocoon, or pupa of another insect, and also in soft-bodied adults like the plant-lice. The parasitic grub becomes full grown by the time its host dies and then it transforms into a fly ordinarily possessing four wings, which is the adult or parent stage. Thus the adult completes the life history after laying eggs to start another generation.

The fact is not always understood that most insects begin life as worm-like creatures without the least resemblance to the parent form. Their transformations or metamorphoses are wonderful processes of nature. Many complex features attend the lives of insects, and the student is repeatedly

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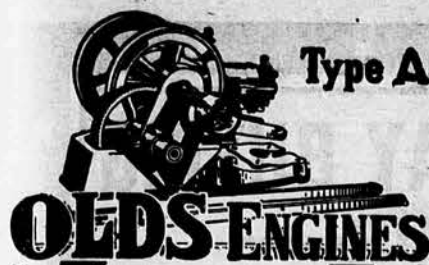
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confronted with mysteries which often grow deeper as investigation progresses.

Other kinds of insect parasites with internal habits similar to the hymenopterous enemies are found among the two-winged flies which belong to the order Diptera. They attack many different animals besides insects and, in some cases, are harmful to live stock. Here again we find not the adults but their larvae—which are called maggots in respect to flies—as the active parasitic agents.

Insect parasites which live externally on their host are generally degraded wingless forms, for the adults are as dependent as their young. The ordinary lice are common examples. Such names as lice, ticks, and mites are, however, much confounded in meaning, being also applied to parasites that are not true insects, since the ticks and mites are mainly classed with the spiders.

Sometimes those insects which attach themselves to plants after the manner of scale-lice or create galls in which they live and thus absorb nourishment during their lives are regarded as parasites also. Hence we find different degrees of parasitism. But when the potato bug is held up as an example, such being recently noticed, the conception of a parasite is rather overdrawn. Parasitism is common among plants as well as animal life. Disastrous plant diseases are produced by fungus parasites and they cause quite as much damage as injurious insects. This subject, however, leads us into questions of practical farming, and, for instruction in these matters, the farmer is referred to the many helpful books which can be obtained at slight cost. One little book which deserves recommendation here on account of its simple and attractive style is called "First Principles of Agriculture." It was written by Professors Goff and Mayne for introduction into rural schools and is published by the American Book Co. Price 80 cents. The company also publish Stoke's "Ten Common Trees" (price 40 cents), and Walker's "Our Birds and Their Nestlings" (price 60 cents).

The publisher of THE KANSAS FARMER will be glad to supply any of these books to reader on receipt of price.

E. S. TUCKER.

#### The Age of Cement.

Seventy-five per cent of the farms of America are a disgrace to their owners, from the standpoint of neatness and appearance of the buildings and surroundings. Wooden structures in varying stages of collapse; rotting fence posts; inefficient watering troughs, and floors of barns and cellars all speak of decay and temporary use. If these farmers could be awakened to the importance of building for all time instead of for a day, the sum total of prosperity and enjoyment in country life would be immeasurably increased. It has been suggested that the huge stones used by the ancient Egyptians in the building of the pyramids and other monuments which have endured thousands of years, were not quarried out of solid rock, but were made from some substance resembling our modern cement, formed in molds on the site of their final occupation. Their process may be another of the lost arts, and if so we are but repeating history, for we most certainly are entering upon an era

when cement is bound to constitute our dependence in permanent buildings of all sorts.

The hold which cement as a building material has in the world to-day is as strong and lasting as the material itself. Timber is becoming scarcer, and at the present rate of consumption the supply in the United States will not last longer than forty years. A durable and satisfactory successor of wood may be found in Portland cement combined with sharp sand and gravel in the proportions of one part of cement to two of sand and four of gravel or stone for very strong and waterproof work, or one part of cement with two and a half of sand and five of coarser material for ordinary work, and one of cement to three of sand and six of stone or gravel where strength is of minor importance. Mixed for ordinary work a barrel, or 380 pounds of cement (3½ cubic feet), will make about 27 cubic feet of concrete. As the sand fills the spaces between the stones (or gravel) and the cement fills the spaces between the grains of sand, the total quantity of concrete will be but slightly in excess of the original quantity of gravel or broken stone.

Portland cement costs \$1.40 a barrel at the mill, and other materials cost according to the hauling distance. At 80 cents a yard for sand or gravel the cost per cubic foot of concrete is around 8 cents, exclusive of labor.

It is often found that concrete construction is absolutely cheaper than lumber, and possessing the additional advantage of being fireproof and permanent. It is used for gutters in stables, cellar and stable floors, drain tile, silos, sidewalks, fence posts, bridges, houses, barns, watering and feed troughs, ice houses and cisterns. There seems no limit to its usefulness. The simpleness with which it is handled commends it to those unskilled in carpentry. Cement should be mixed with its bulky companions in a dry state and just enough water added to make it pack well. A mold for the form required is then filled and tamped down hard and allowed to set for twenty-four hours, when the mold may be removed; or if made with hinges, as are fence post molds and other small forms, it may be removed within a few minutes. Surfaces are generally finished off with a smooth coating of pure cement. Buildings are made from separate blocks or constructed in a solid wall. One of the latest methods is to build this wall hollow, thus making a frost-proof structure, warm in winter and cool in hot weather.

Of the several kinds of cement, Portland possesses the highest cementing power and an additional virtue of hardening under water. All cement should be kept dry. When properly protected it often improves with age. Crushed stone makes a somewhat stronger concrete than gravel; cinders are frequently used. The mortar may be colored to suit the fancy of the builder, and some very beautiful houses are now made of this material.

The Department of Agriculture has issued a Farmer's Bulletin (No. 235) on "Cement Mortar and Concrete," with special reference to its preparation and use for farm purposes. This bulletin is for the asking, and gives in detail many valuable hints and methods impossible in this space.

Farmers should use nothing but a good grade of cement. It is made by a number of concerns. Do not buy from unknown dealers. Several firms make iron molds for fence posts, tile, building blocks, etc., and these will greatly facilitate construction, being cheaper usually than to have one made by a machinist.—Farmers' Voice, Chicago.

**Profitable Dairying**—A practical guide to successful dairy management. By C. L. Peck. Illustrated, 5x7 inches, 200 pages. Cloth. Price 75 cents. Orange Judd Company, New York.

The author of this volume is a well-known, practical dairyman, who has made dairying a marked success and who, in this volume, gives such practical hints on dairying as will enable the reader to improve his methods, better his conditions, and more nearly attain that point in business known as success. The treatment of the entire subject is thoroughly practical in every detail, being principally a description of the methods practiced by the author and which after a lifetime of experience and study he has found most advantageous. Yet the scientific bearing on the subject has not been neglected, as the author has availed himself of all the most recent discoveries and advancements in science, thus making the work authoritative, practically as well as scientifically.

**Clovers and How to Grow Them**—By Thomas Shaw. Illustrated, 5x8 inches, 337 pages. Cloth. Net, \$1. Orange Judd Company, 439-441 Lafayette Street, New York, N. Y. This is the first book published which treats on the growth, cultivation, and treatment of clovers as applicable to all parts of the United States and

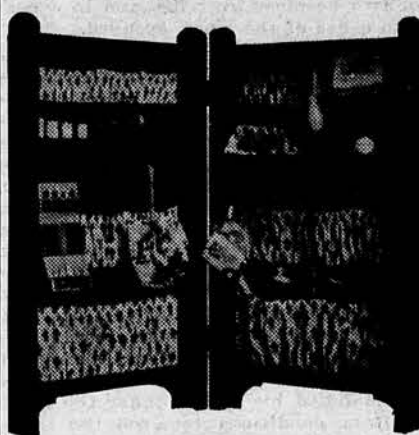


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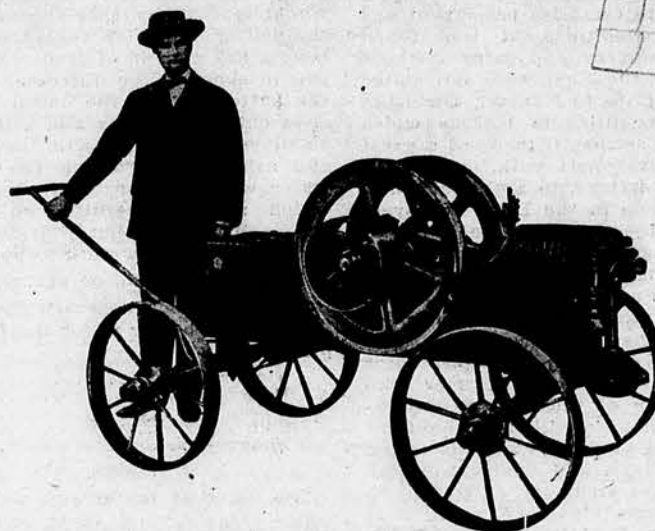
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Canada, and which takes up the entire subject in a systematic way and consecutive sequence. The importance of clover in the economy of the farm is so great that an exhaustive work on this subject will, no doubt, be welcomed by students in agriculture, as well as by all who are interested in the tilling of the soil. After thoroughly explaining the principles and practice of successful clover-cultivation in general, the most important species and varieties are discussed in detail. With each are given its varieties, pasturing, harvesting for hay, saving seed, renewing, value as fertilizer. Thus each chapter is complete in itself.

**Diseases of Swine**—By Dr. R. A. Craig, Professor of veterinary medicine at the Purdue University. A concise, practical and popular guide to the prevention and treatment of the diseases of swine. Illustrated, 5x7 inches, 200 pages. Cloth. Price 70 cents. Orange Judd Company, New York.

In no other class of farm animals is so little attention given the prevention of diseases as in swine and as a result, the per cent of loss is about twice as great as it is in other species. In discussing the different diseases, the causes and preventive measures are given special attention by the author. The book is conveniently divided into four parts. Part 1 treats on general diseases, their diagnosis and the methods of administering medicines. With the discussions on each disease are given its causes, symptoms, treatment and means of prevention. The succeeding parts treat on surgical diseases; infectious diseases, and parasitic diseases. Every part of the book impresses the reader with the fact that its writer is thoroughly and practically familiar with all the details upon which he treats. All technical and strictly scientific terms are avoided, so far as feasible, thus making the work at once available to the practical stock-raiser, as well as to the teacher and students.

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## Dairy Interests

### Grading Cream.

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The future development of the dairy industry in Kansas depends upon the profits of the dairy business, which is governed entirely by two factors, (1), the cost of production of dairy products; (2), the price received for dairy products. While the first factor plays an important part in the dairy business, it is the second factor that is desired to be considered in this treatise.

The second factor depends entirely upon the demand and supply, and this again depends upon the quality of the article which affects the consumption. To show the significance of this statement, a test was made in which good second-grade butter was supplied on the tables of a series of boarding houses. Without bringing the attention of the boarders to the fact, the butter was changed to fresh butter, classed as first-grade. The consumption was immediately increased approximately thirty-three per cent, and if a still poorer quality than second-grade butter had been furnished, the variation in the amount consumed would have been much greater. Since this paper is to take up only one phase of the dairy industry, namely, the butter side, it is our intention to make clear the great importance of the relation that the quality of the butter bears to its consumption.

Owing to the great progress that has been made in dairying within the past few years, and owing to the fact that it becomes quite necessary to introduce dairy methods in Kansas in order that the fertility of the soil may be maintained, and to establish permanent and prosperous conditions, it was found that the creamery and dairy methods employed in the East were not suited to the conditions in Kansas. Owing to the many localities in Kansas which are sparsely settled, it involved a great expense to transport milk, on account of its bulky nature, to a central point, as is still done in the East. To overcome this objection in these localities and to bring about conditions which permitted the average farmer to sell his cream on an open market, the same as he does grains and other farm products, it became necessary to introduce what is now called the hand-separator system, by which every farmer who purchased one of these cream-separators could skim his milk, feed the skim-milk to farm animals, store his cream for several days, and finally haul the product to the creamery or station to be sold to some creamery where it is ultimately made into butter. These circumstances brought on conditions which were quite unfavorable for the production of first-class butter. These conditions came about in the following manner:

First, on account of the fact that the farmers were not accustomed to operating the hand-separator and keeping it in a perfectly sanitary condition, which is so essential in the art of dairying. Thus at times milk was run through filthy separators which tainted the cream and started a serious fermentation.

Second, since it is the milk-sugar and casein which are the chief constituents of skim-milk that are most fermentable, and since cream consists merely of butter-fat and skim-milk, it would under all conditions be more profitable for the farmer to remove and retain as much as the skim-milk as possible, which would reduce the weight of vol-

ume and thus lessen the transportation expense. But the importance of regulating the cream-separator was not recognized, and a great deal of thin cream was shipped, which made conditions more favorable for the development of taints and bad flavors in cream.

Third, cream produced under these conditions was kept for a long time before it was delivered. On the average Kansas farm very few appliances are at hand to cool the cream, and under ordinary temperatures, such as we would expect to find on a farm, it would not require more than two days to set up a fermentation in the cream which would develop a sourness sufficient to make it ripe enough to churn. Hence, it can be stated without further explanation that cream kept for a week or two becomes overripe, and in a certain sense of the word, decayed.

Fourth, long distances of transportation and the lack of cooling facilities on the train were still more conducive to the furthering of the fermentation. Out of such a product the butter-maker could do little to restore the quality, and to make an extra butter out of this cream would be impossible.

Fifth, with this method of handling cream, fierce competition began. Any cream, no matter how old or how rancid, had a market at the creameries at the same price per pound of butter-fat as that paid for first-grade cream. According to this method the man who was neat and clean in his operations and handled his cream under the most sanitary conditions received the same money as the man who paid no attention to the quality of his cream. Hence, there was a constant tendency for the dairymen of Kansas to produce cream of a poor quality.

Sixth, owing to this unhealthy competition the price of butter-fat was enhanced and the creamerymen were obliged to resort to methods which would tend to increase the overrun of the butter in order that they might have a fair margin of profit. The overrun in short is the difference between the butter-fat and the butter. It consists chiefly of water and salt, with a small amount of casein, milk-sugar, and ash. By increasing the overrun, water was incorporated in the butter, which naturally resulted in reducing the quality of the butter if more than 16 or 18 per cent were incorporated.

### THE GRADING OF BUTTER.

The great markets of the United States score butter under the following plan:

Flavor . . . . .	45
Body . . . . .	25
Color . . . . .	15
Salt . . . . .	10
Package . . . . .	5

### FLAVOR.

The value of butter over grease depends largely upon flavor and aroma. To make a good-flavored butter we must have good milk to begin with. The principal defects in flavor can be classed under four heads:

1. Rancid flavor.
2. Tainted flavor.
3. High acid flavor.
4. Low acid flavor.

The cause of rancidity in fresh butter is due:

1. To old milk or old cream.
2. To unsanitary conditions by using filthy utensils and apparatus.
3. To a poor, loose body containing large quantities of casein, which, when contaminated and kept at a warm temperature for a short time, develops rancid acid very quickly.

Tainted flavor in butter is caused:

1. From tainted milk or cream.
2. From the impure water with which it is washed.
3. From unclean or badly flavored salt.
4. By the use of unclean utensils, such as churn, worker, ladle, packing boxes, etc.
5. By storing in places where odors are strong from filth of foreign substances placed around it.

The high acid flavor is due:

- To cream being held at too high a temperature for too long a time.
- A low acid flavor is due:
- To cream being held at too low a temperature for too short a time.

If the flavor of butter is perfect its value as given in the card is 45 points.

### BODY.

The body of the butter should have a granular, yellow, amber appearance. The cause for the difference in appearance in texture between butter and grease is due to the amount of water incorporated in butter. There should be approximately 16 per cent of water in butter—not less than 12 per cent, and not more than 17 per cent.

The defects in the body of butter may be divided into six classes:

1. Too much water.
2. Greasy.

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Although the cream separator is an all-the-year-round machine, right now is the best time to buy one if you have not already done so. Within the next two months the milk flow of most herds will be doubled, and savings will count biggest. If you haven't a separator to take care of this extra milk, a great percentage of your entire year's milk profits will be lost. Any one who has two or more cows should by all means take steps to secure a good separator without delay. If you buy one at once it will more than half pay for itself before the middle of the summer. Otherwise, just so much money will be lost, wasted, thrown away. Why not have a DE LAVAL machine set up at once in your dairy for a free trial, where you may test and try it out. This will cost you absolutely nothing, and you can see and learn for yourself just what the separator will save you. Over 700,000 users have already proven the DE LAVAL to be the most profitable thing on the farm, and the number of DE LAVAL machines sold to date is ten times all others combined. Hence, there is no reasonable excuse why any one who is desirous of securing the largest possible milk profits from their cows should not at least give the DE LAVAL a fair trial. Don't delay, but write us to-day for a free catalogue and full particulars concerning how you may secure a DE LAVAL machine. Those who haven't the ready cash with which to purchase a separator should remember that the cash is not necessary in buying a DE LAVAL, for it can be purchased upon such liberal terms that it will more than save its cost while it is being paid for. Write to-day.

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WHEN WRITING OUR ADVERTISERS PLEASE MENTION THIS PAPER.



3. Oily.  
4. Tallowy.  
5. Cheesy.  
6. Milky body.  
Too much water is due:  
1. To insufficient working.  
2. Working butter too cold or too warm.  
3. Washing butter with warm wash water when churned at a low temperature.  
Greasy butter is due:  
1. Butter handled or worked too much.  
2. Churned in unwashed or unscalded churn, worked on unscalded workers, and handled with unscalded ladies.  
3. Butter worked below fifty degrees assumes a greasy appearance.  
4. Butter worked at too high a temperature assumes a similar appearance.  
Oily butter is due:  
1. Soft, succulent feeds, gluten feeds, or oil-meal.  
2. To a specific fermentation.  
3. To heating the cream near the boiling point when pasteurizing.  
Tallowy butter is due:  
1. To improper feeding, for instance, too much cottonseed-meal or bran in proportion to other feed.  
2. To a lactic fermentation.  
Cheesy butter is due:  
1. To the curdling of cream, either sweet or sour.  
2. To a milky body.  
A milky body is due:  
1. Buttermilk not separated from butter, or butter not thoroughly washed.  
2. Butter made from ropy cream.  
The body of butter if perfect counts 25 points.

## COLOR.

The color of butter should be of a light straw color, and the defects in color may be classed as follows:  
1. Too yellow.  
2. Too light.  
3. Mottled.  
4. Specked.  
5. Streaky and wavy.  
Too yellow butter is due:  
To the use of too much coloring matter.

Too light is due:  
To insufficient coloring matter.  
Mottled and streaky is caused:  
1. By developing a high acid in cream or starter and the incorporation of the froth of the cream.  
2. By improper separation.  
3. Change of temperature.  
4. Sudden chilling before salt is dissolved.  
5. Insufficient working.  
6. Uneven distribution of salt.  
Specked butter is due:  
1. To over-ripe cream.  
2. To dried cream.  
3. To foreign matter.  
Color counts for 15 points.

## SALT.

The salting of butter depends largely upon the demands of the market. However, butter may be:  
1. Excessively salted.  
2. Not salted enough.  
3. Gritty.  
Gritty salting is due to salt being too hard or not giving salt time enough to dissolve.  
Salt counts 10 if perfect.

## BUTTER PACKAGE.

Neatness of package has much to do with the increased consumption of butter. Butter, if put up in prints, should be wrapped in parchment paper to preserve it. Prints should be square and have a neat, trim appearance. Whatever may be the condition, the man that puts his butter up in the handsomest packages will sell the most butter if other conditions are equal.  
The value of package if perfect counts 5.  
Butter, being first scored, is then graded into extras, firsts, seconds, and

thirds. The rules governing the grading of extras is that it shall consist of high-grade butter produced during the season, scoring not less than 93 points. The following are the requirements of extras:

1. Flavor—Must be fine, fresh, and clean if of fresh make, and good, sweet, and clean if held in storage.
2. Body—Must be firm and solid, with a perfect grain or texture, free from saltness.
3. Color—Must be uniform, neither too light nor too high.
4. Salt—Well dissolved, thoroughly worked in, not too high nor too light.
5. Package—Good and sound, as required in classification.

## FIRSTS.

Firsts shall be a grade just below extra, scoring 87 points or higher, lacking somewhat in flavor, which, however, must be good, sweet, and clean. All other requirements are the same as in extras.

## SECONDS.

Seconds shall consist of a grade just below firsts, scoring not less than 80 points.

Flavor—Must be fairly good and sweet.

Body—Must be sound and smooth boring.

Color—Fairly good, although it may be somewhat irregular.

Salt—May be irregular, high or light salted.

Package—Same as required in firsts.

## THIRDS.

Thirds shall consist of butter below seconds, scoring not less than 75.

Flavor—Reasonably good, may show strong tops and sides.

Body—Not smooth boring.

Color—Mixed or streaked.

Salt—Irrregular.

Package—Miscellaneous.  
(To be continued.)

## The Profitable Dairy Cow.

PROF. C. S. PLUMB, OHIO STATE UNIVERSITY.  
(Continued from last week.)

## JOHN'S TRIP AND THE RESULTS.

One day at the dinner-table, John surprised the family by announcing that he was seriously considering going to the World's Fair. He would enjoy the change, but as he said, "Father, I would like to see the dairy-cattle test and study the cows there a bit. As those animals represent select ones of different breeds from over the country, I should like to examine them and study both type and breed." "Well, if I were you, John," said the elder, "I would not only see those cattle, but would stop at Syracuse and Rochester and see those two herds at Firth and Bogswell. We have read a deal of them and of the remarkable records some of their cows have made, and it might pay you to stop en route and see them. You might pick up some ideas on breeding and management."

This accounts for John going away on a vacation in July after the haying was finished, a thing he had never been guilty of before. He felt kind of guilty as he was driven to the station, all dressed up in his Sunday best, for he knew the folks would have to do his chores. But he believed it would pay. He did not realize then, like many another good brother, that travel is a great education in itself. He learned that later. As he sped across country in the rapidly moving train, through fertile valleys, over rich bottoms and along by rolling uplands, he saw many herds of cattle, kept mainly for milk-production. He was greatly impressed with their variation and their apparent inferiority, even when seen from the cars. It was a revelation to him. In later years, when traveling through the green pastures of England and Scotland, among the many uniform herds there, his mind harked back to that trip across American soil on that warm July day. The contrast was striking, and he felt full sure that it was educational in its effect. If some of his fellow countrymen could have seen these sights as he did, he was sure they would have taken the lesson well to heart.

The exposition reached, the cows soon came in for examination. They represented both dairy and general-purpose type, but it impressed him that from the point of dairy value, the closer the cows adhered to dairy type, the better they ranked in production. There were exceptions, but the average of a class was what he judged by. From the profit point of view, he saw more money in the udder of capacity than he did in the thick buttocks and meaty back and breast. The working dairy records were also demonstrating that one class gave better returns than another. He was particularly impressed with several individuals, not



## YOU CAN'T AFFORD TO MAKE A MISTAKE.

Don't buy a cream separator that makes more work. Many of them do, but you need not get one of that kind. Investigate. You can try an

## OMEGA Cream Separator

before you buy it. If you do not find that it is more easily washed; more easily turned; more durable than any other, we will not even ask you to keep it. You can thoroughly wash it in 3 or 4 minutes—long before the bowls of other separators are "run down." It drains itself. It does not whip the cream nor break the butter fat globules. It requires no special tools for its care. It is the real labor-saving separator. You really ought to investigate it.

## Is this fair?

If you keep milk cows we will set up an Omega separator on your place, and let you try it. If you don't find that it turns more easily, is more quickly and easily washed, gives less trouble, gets all the cream, and of finer quality than any other—you need not keep the Omega, and the trial will cost you nothing. Will it not pay you to investigate? Send for free book on "How Milk Money." Tells how to care for cows; how to make butter; how to select good cows; how to wash butter; how to add "white goods," and a hundred other things you ought to know. FREE if you tell how many cows you keep, give address of a neighbor who keeps cows, and mention this paper. Ask also for catalog.

THE OMEGA SEPARATOR CO.  
28 Concord St., Lansing, Mich.

## Cleveland Cream Separator

Direct to You  
30 Days Approval Test



**Easy Running:** In the Separator this isn't an empty claim. The whole thing is summed up in an honest, easy to prove reason. The Cleveland is the only ball-bearing separator made.

**Easy Cleaning:** The Cleveland has fewest parts and skimming device is made of aluminum. Investigate. You will find this metal is non-corrosive, non-poisonous, milk cannot stick to it and there is no coating to wear off. We prove these things.

**Long Life:** The Cleveland has the fewest parts of any separator made and gets results at the slowest speed. Parts can't wear out that are not there. The Cleveland is a guaranteed perfect skimmer.

**How We Sell:** To you from our own factory. The only manufacturers making a high grade separator and selling it at a fair, square price and a fair, square plan. No money in advance. No note to sign. No fuss of any kind. The catalog tells you. Write for it.

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## Combination Thief-Proof Whip and Walking Stick

The Greatest Novelty of the age. No buggy is complete without one. Price, \$1; postage paid any part of U. S. Address

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## BLUE VALLEY CREAMERY CO.,

ST. JOSEPH, MISSOURI.

## Peerless Cream Separators



### Reasons Why the PEERLESS is the Best

- 1st—Twice the capacity of any other bowl. That is to say two times smaller than any other bowl of equal capacity.
- 2d—Compound feature, two bowls in one, hollow bowl, and disk bowl, combining all the features of the tubular and disk machines.
- 3rd—Enclosed frame. Free from dust. Injury resulting from machine impossible.
- 4th—Perfectly noiseless.
- 5th—Heavy enough and strong enough to lift a box car, which insures durability.
- 6th—The bushings made of phosphor bronze—the most serviceable material for the purpose. Fitted and guaranteed to be accurate to 1/1000 of an inch.
- 7th—Every journal bushed with brass or phosphor bronze. This fact together with the fine adjustment described above, accounts for the light draft of the Peerless machine. Each bushing is made in duplicate and interchangeable and if at any time they show wear they can be replaced at small cost.
- 8th—At normal temperature the skimmed milk will always show less than 5-100 of 1 per cent of butter-fat and generally less than 1-100 of 1 per cent butter fat. PEERLESS CREAM SEPARATORS are guaranteed to anybody—everybody, anywhere—everywhere.

For further information, write

**BRADLEY, ALDERSON & CO.,**  
Tenth and Hickory, KANSAS CITY, MO.

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GET IT ALL. GET THE LAST DROP. BUY DIRECT FROM THE FACTORY AT FACTORY PRICES AND SAVE

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## Davis Cream Separator

No other skimming device known so surely gives you all the cream, and none does it with so little work. It is absolutely the simplest and easiest running separator. Only 3 pieces in its bowl. Think of the ease of keeping such a bowl clean. It never can get out of balance. The tank is only 6 1/2 inches high, no high lift. You should know all about the Davis. Investigate before you buy. Write to-day for money saving catalog No. 126.

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Is your pulse weak, too slow, too fast, or does it skip a beat?

Do you have shortness of breath, weak or hungry spells, fainting, smothering or choking spells, palpitation, fluttering, pains around the heart, in side and shoulder; or hurt when lying on left side?

If you have any of these symptoms your heart is weak or diseased, and cannot get better without assistance.

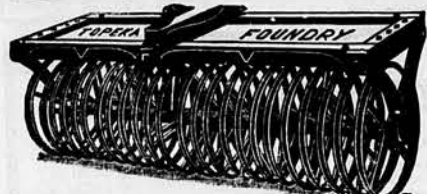
Dr. Miles' Heart Cure strengthens weak hearts, and rarely ever fails to cure heart disease. Try it, and see how quickly you will find relief.

"About January 1st, 1902, I took down with weakness and drowsy, and gradually grew worse. I was told by my family physician that my case was hopeless. My neighbors and family had given me up to die. My limbs and body were swollen to one-third larger than normal size, and water had collected around my heart. For at least three months I had to sit propped up in bed to keep from smothering. I sent for five bottles of Dr. Miles' Heart Cure, and by the time I had taken them all I was entirely cured. I feel better than I have for twenty years, and I am able to do any kind of work on my farm. My attending physician told me that if it hadn't been for Dr. Miles' Heart Cure I would now be in my grave."

L. T. CURD, Wilmore, Ky.  
Dr. Miles' Heart Cure is sold by your druggist, who will guarantee that the first bottle will benefit. If it fails he will refund your money.

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so much for breed as for dairy character.

On the return home a short stop was made at the two herds referred to by his father, and here he saw many great cows of wonderful capacity. He noticed that they had wonderfully well-lighted barns on their farms, and he saw their advantage, knowing that tuberculosis, that dread disease among cattle, would not thrive in plenty of light. He also noticed that the calves were provided with nice healthy pens, where the sun in winter could reach them. These stables were not especially expensive, but they were sanitary, furnishing absolutely necessary conditions for producing the best grade of milk. The stables were clean, the cattle free from dirt and dust, and though kept in during the day in this hot July weather on account of flies, they were in clean, healthful surroundings. These two farms sold milk to a very particular trade, one of them shipping to New York City. Recent years have seen patrons of milk-producers calling for far more care in milk-production, giving them an essentially germ-free milk. To show how particular some buyers are, Mr. Frith showed John a letter, of which the following is a copy:

"Please ship me two quarts of pasteurized milk from a cow whose bag has been washed in peroxide hydrogen and wrapped in antiseptic cotton during the heat of the day. I desire this from a cow that is given distilled drinking water, and is fed microbe-disinfected meadow grass, free from noxious weeds. Also see that her temperature is down to 80° F. when she is milked. See that the stable is thoroughly disinfected daily."

These herds showed strikingly the effects of careful breeding. He noticed the bulls used were short-legged and strong-bodied, with much quality. He found that the owners used sires from dams that had udders of very superior shape, and they stated that the daughters of these bulls tended to reproduce through them the mother's characteristics. Bogswell brought out a ring of four grand cows. He called them "The Big Four," and lined them up for his inspection, udders toward him. He marveled at their size and apparent capacity. The owners laid much emphasis on the part the bulls played in fixing this type. Bogswell more than once said: "Mr. Winslow, the bull is more than half the herd; yes, sir, more than half the herd."

John reached home after ten days of what seemed to him to be a most profitable and enjoyable trip. At the supper table that night he began the story of that journey, and the lights didn't go out in the sitting-room till far later than was common in the Winslow family. "John," said the old man, "what made the biggest impression on you in that dairy-cattle barn at the fair?" "The dairy type," said John. "I was satisfied after my inspection that these smooth, meaty cows could not do the business we want done."

Later that fall the final report on this exposition herd of ten different breeds was made. The father, after supper one night, pulled the wrapper from his "Dairy Intelligencer" and read the results of the test. Looking it over, he said: "John, your judgment on the exposition cows was good. Hear this from the report about results: A Guernsey, Mary Marshall, produced in six months a butter profit of \$59.40, ranking first. A Red Poll cow, named Mayflower, of a very milky type, which I remember you especially told about, stood second, her butter making a profit of \$52.10. Excepting for this one case, the other cows of the first ranking ten were all cows of dairy breeds. Where the total record of five cows in each breed is recorded, I see that they show the Guernsey first, with butter-fat worth \$230; the Jerseys second, with \$225 credit; the Ayrshire third, with \$218; and the Holsteins fourth, at \$211. From the butter point of view, the dairy breeds beat the others out of their boots. We had better stick to our type and work deeper into the breed, my son." "Yes, father," said John; "I believe it is absolutely essential, if we are to get the very best dairy results from our herd, that we must stick to cow type and never lose sight of its importance."

(To be continued.)

A magnificent steel engraving of Hagerman Pass, the most famous mountain pass in Colorado, has been issued by the Colorado Midland Railway. This engraving is 26 by 40 inches and suitable for framing. It will be sent to any address on receipt of 15 cents in stamps by Morell Law, traveling passenger agent, 566 Sheldale Bldg., Kansas City, Mo., or C. H. Speers, G. P. A., Denver, Colo.

The school of thoughtlessness has many graduates.

## The Poultry Yard

Conducted by Thomas Owen.

### Theory vs. Practice.

The Biblical injunction to "Prove all things; hold fast to that which is good" applies to poultry matters fully as much as to religious affairs. A noted writer on poultry matters early this season advanced a new theory concerning freshly-laid eggs being unhatchable. He claimed that an egg taken from a hen as soon as laid and placed in an incubator would not hatch; that the animal heat in the egg had first to be eliminated from the egg and after cooling a day or two it would hatch all right. He had other reasons to advance for his theory. Now the writer had always surmised that the fresher the egg was the more surely it would hatch, but never having tested the matter he thought perhaps that this new theory might be all right. However, he determined to see for himself, being of the tribe of doubting Thomases. He took an egg just laid, still warm, out of the nest and placed it in an incubator, and behold it was the very first egg to pip and it hatched out a strong, healthy chick. The next time he set his incubator he took several freshly-laid eggs and placed them therein and after marking them, watched the results. The rule was that they were the ones that pipped the soonest and of course hatched the soonest. So much for this man's very elaborately woven theory.

Another old theory used to be that when eggs for hatching are shipped a distance from home, they should be allowed to rest for at least twenty-four hours before setting under a hen. A great many poultry-breeders still advise their patrons to give the eggs a good rest before giving them to the hens, so as to settle the eggs after their rough usage on the journey. It was only a theory and does not hold good in practice. The eggs will have resting enough in the nest, and the sooner they are placed there after their receipt, the sooner you will have young chicks.

Another old theory was that you should feed young chicks just as soon as they come out of the shell. This has been exploded and now well-posted raisers of poultry rarely feed them anything for thirty-six or forty-eight hours after hatching and some go so far as to say seventy-six hours will not hurt them.

Another theory was that the very first thing to give young chicks was hard-boiled eggs, the most indigestible food you could give them. But as practical tests are made from time to time, all these fine-spun theories are exploded into the air and our feet are placed on the foundation of solid facts.

### Poultry Notes.

In answering an inquiry relating to turkeys in last week's KANSAS FARMER, the types made us say "State Turkeys." We wrote slate but probably our 1 and t were so nearly alike, that the compositor could not distinguish one from the other. The name slate is given the turkeys on account of their color, being slate-colored.

After the hatching of chicks comes the raising of them, and the latter is more important than the former. One great cause of mortality among chicks is the exposure to sudden rain storms resulting in the drowning of thousands and the stunting of tens of thousands. When a rain storm comes up see that they are gotten under shelter before the storm breaks.

If you are having poor success with your incubator hatches, try manipulating the eggs more than you have been doing. Change their positions from one end of the tray to the other and from the sides to the center and ruffle them around so that they are in a different position each time you turn them, and that ought to be twice each day. The writer found a decided improvement in the hatches where he had handled them considerably, over the others where he had not disturbed them so much.

### Rearing the Farm Turkey.

MRS. ANDREW BROOKS.

It has been my experience that the louse is one of the greatest drawbacks to successful turkey-raising. If turkeys have access to the same runs or buildings as hens, they are quite sure to be thus afflicted and the pests increase faster than on hens, and many puzzling losses among the young stock may be traced to that source. I take no

### POULTRY BREEDERS' DIRECTORY.

FOR SALE—Choice Light Brahma eggs, \$1 for 15; \$1.75 for 30. Wm. Plummer, Barclay, Kans.

EGGS FOR SALE—Buff Rocks exclusively. Farm range, 50 cents for 15, \$3 per 100. Mrs. W. Lovelace, Muscotah, Kans.

ROSE COMB BROWN LEGHORN EGGS, 15 for \$1.50 for \$2.50, 100 for \$4. Mrs. John Holzhay, Bendena, Kans.

EGGS FOR HATCHING—From one of the best laying strains of S. C. Leghorns in the West, at \$1 per 15 eggs, both brown and white. Special prices on larger lots. L. H. Hastings, Quincy, Kansas.

BARRED ROCKS and Silver Pencilled Wyandottes. Having hatched all the chicks I wish, will sell eggs from my high scoring pens at \$1.25 per 15; utility eggs at 5 cents each. Mrs. Chas. Osborn, Eureka, Kans.

BARRED ROCK EGGS—Heavy winter laying strains. Pen No. 1, \$1.50 per 15. Pen No. 2, \$1 per 15; \$5 per 100. Mrs. W. H. Schreier, Argonia, Kans.

BUFF ROCKS—From fine stock. Eggs \$1.50 per setting. A few good cockerels, \$1.50 each. M. Madden, Mound City, Kans.

SILVER WYANDOTTES EXCLUSIVELY—Eggs from State Show winners, 15 for \$2. Farm range Silvers, 100 eggs, \$4. Mrs. J. W. Gause, Emporia, Kans.

RHODE ISLAND REDS EXCLUSIVELY—Cockerels \$1 each. Eggs, sitting \$1.50, for incubators, \$5 for 100. Address Ben Warren, Maple Hill, Kans.

FOR SALE—Silver Laced Wyandotte eggs; farm raised, \$1 per 15; \$4 per 100. Cumberland raspberry plants, \$5 per 1000. Frank Rice, Watheana, Kans.

COLLEGE HILL BARRED ROCK FARM—Premiums won 1905. Wichita, 100 competing, 1, 2, 3, 4 hens, 1, 2, 3, 4 cockerels, 1, 5 pullets, 1 cockerel, 1 pen; Oklahoma, 1, 2 hens, 1, 2 pullets, 1 cockerel, 1 pen; Oklahoma, 1, 2 hens, 1, 2 pullets, 1 cockerel, 1 pen. Judges McClure and Emery. Stock and eggs guaranteed. Mrs. J. T. Woodford, Wichita, Kans.

S. C. B. LEGHORN EGGS—From first cockerel at the State show. \$2.50 per 15. Other pens \$1 per 15. Mrs. Siler Seal, Meriden, Kans.

R. C. B. LEGHORN EGGS FOR SALE. Stock from best laying strains \$1 for 15; \$5 for 100, best selected and fresh eggs. Mrs. Bertha Evans, Route 4, Box 32, Lyons, Kans.

WHITE WYANDOTTES—the lay all winter kind. Bred to high score, large egg record cockerels. Dun-tin strain. Eggs 5 cents each. \$4 per 100. J. L. Moore, Eureka, Kans.

RHODE ISLAND REDS EXCLUSIVELY—Cockerels \$1. Eggs, sitting \$1.50; for incubators, \$5 per 100. Address Ben Warren, Maple Hill, Kans.

WHITE PLYMOUTH ROCKS EXCLUSIVELY—Eggs, \$2 per 15; \$3 per 30. All orders given prompt attention. R. C. Capron, Route 7, Winfield, Kans.

BARRED PLYMOUTH ROCK EGGS—From free range stock, no other fowls kept on the farm. Price \$1 for 15; \$5 for 100. Mrs. C. F. Brown, Box 61, Manchester, Oklahoma.

EGGS FOR HATCHING from large high-scoring M. B. turkeys, \$2 per 9; S. C. and R. C. Brown and S. C. White Leghorns, S. Spangled Hamburgs, S. C. Black Minorcas. Prize-winners in every pen. Eggs, \$1 per 15. Vira Bailey, Kinsey, Kans.

BLUE BIRDS—Parred to the skin. Hawkins Ringlet strain. Eggs, \$1 per 15; \$5 per 100. Minnie K. Clark, Lyndon, Kansas.

EGGS FOR HATCHING from my flock of pure-bred B. P. Rocks. Pullets scoring 93; flocks headed by males scoring from 90% to 92%. \$1.25 per 15—\$5 per 100. Incubator orders a specialty. Eggs carefully packed. Address Mrs. Chas. Ainsworth, Eureka, Kansas, Route 1.

BLACK LANGSHAN EGGS at \$1 to \$1.50 per 15 from Hettich strain of World's Fair winners. Mrs. E. Forward, Bayneville, Kans.

IN ALL THEIR BRILLIANCE—Rhode Island Reds, Rose-Comb and Single-Comb. Write for circular describing origin, prices of eggs, etc.; it is free. H. A. Sibley, Lawrence, Kansas.

BARRED AND WHITE ROCKS—Seventeen years breeder of exhibition birds scoring 94% to 96%. Eggs, \$2 per 15; \$5 per 45. Chris. Bearman, Ottawa, Kansas.

STAY WHITE—S. C. W. Leghorns and Buff Rocks. Winners at State Fairs. Eggs, \$1 per setting. J. W. Cook, Route 2, Hutchinson, Kans.

RHODE ISLAND RED EGGS for sale at \$1.25 per 15 eggs, or \$2 per 30 eggs. Mrs. G. F. Kellerman, "Winewood Farm," Mound City, Kans.

FOR SALE—Throughbred Gold-laced Wyandottes. Eggs, \$1 per setting. H. A. Montgomery, 310 Parallel St., Atchison, Kans.

BARRED PLYMOUTH ROCKS—Bradley strain, prize winners; won 1st on chl. last three years at Harvey county poultry show. Eggs from pen \$2, yard \$1 per 15. R. H. Harston, R. R. 6, Newton, Kans.

BLACK LANGSHAN EGGS—From main flock, 15 for \$1.00; 100 for \$5.00; from pen \$2.00 for 15. Mrs. Geo. W. King, Route 1, Solomon, Kansas.

WHITE PLYMOUTH ROCK exclusively—bred direct from a pen of U. R. Fisher's birds. Eggs for hatching from pen No. 1 \$2 per 15. Satisfaction guaranteed. J. A. Kauffman, Abilene, Kansas.

BARRED ROCK EGGS, \$3 per 100. Mrs. R. A. Galbraith, White City, Kansas.

WHITE PLYMOUTH ROCK EGGS from high-scoring show birds, \$1.50 per 15; \$2.50 per 30. Incubator eggs, \$5.00 per 100. M. B. Turkey eggs, \$3.00 per 11. J. C. Bostwick, Route 2, Hoyt, Kansas.

GREAT BIG S. C. BUFF ORPINGTONS are the winter layers. Eggs \$1.50 per 15; \$2.50 per 30. Mrs. J. R. Cotton, Stark, Kans. 225 Main Street.

VANNATTA'S SINGLE COMB WHITE LEGHORN—Great layers. Won \$100 Cash at World's Fair. Eggs for hatching. Catalogue free. E. E. Vannatta, Vandalia, Mo.

ONE DOLLAR buys 15 eggs of either Rose Comb R. I. Reds or Barred Rocks from prize-winning stock at the college show. Mrs. A. J. Nicholson, Manhattan, Kans.

EGGS, EGGS—All kinds of fancy pigeons, also Toulouse geese eggs at \$1 per setting. Pekin and Rouen duck eggs, 18 for \$1. Muscovy duck eggs, 10 for \$1. Turkeys, Peacocks, Barred Rocks, Buff 10 for \$1. Turkeys, Hamburgs, Rhode Island Cochins, Houdans, S. S. Hamburgs, Rhode Island Reds, Orpingtons, White Buff and brown Leghorns, White, Buff and Silver-Laced Wyandottes, Game Golden Sea-bright Bantams, Pearl and White guinea, hunting dogs. Poultry eggs 15 for \$1. Write D. L. Bruen, Platte Center, Neb.

WHITE PLYMOUTH ROCKS—12 years breeder of choicest birds. Eggs \$1.50 per 15. Member American White, F. R. Club. J. E. Shinkle, Lakota, Kans.

EGGS FROM MAMMOTH BARRED PLYMOUTH ROCK CHICKENS \$1.50 per 15. A. D. Wyncoop, Bendena, Kans.

BLANK LANGSHANS—Hens scoring 93 and upward—hatched by 2d and 4th prize cockerels from Kansas City 1905 show. Eggs, \$2 for 15; \$3 for 30; special price by hundred. Can all orders at once. Mrs. C. S. Cross, Fair Acres Farm, Emporia, Kansas.



## POULTRY BREEDERS' DIRECTORY.



## Health Insurance for Poultry

By correcting digestive troubles and destroying the poisonous germs of disease, Dr. Hess Poultry Pan-a-ce-a is a guarantee against loss. Every package is an insurance policy on the life of your poultry; on the health of every chick. By its action on the digestive organs it compels the system to extract the largest possible amount of nutrition from the food, and quickly convert it into bone, muscle, feathers, eggs, etc.

## DR. HESS Poultry Pan-a-ce-a

is the prescription of Dr. Hess (M.D., D.V.S.) and cures croup, cholera, roup, indigestion, leg weakness and the like. It is endorsed by leading poultry associations in the United States and Canada. Costs but a penny a day for about 30 fowls, and is sold on a written guarantee. In setting hens sprinkle both hen and nest with Instant Louse Killer, and the brood will come off free from lice.

1 1/2 lbs. 25c. mail or express, 40c.  
5 lbs. 60c.  
12 lbs. \$1.25  
25 lb. pack, \$2.50

Send two cents for Dr. Hess 48-page Poultry Book, free.

DR. HESS & CLARK,  
Ashland, Ohio.  
Instant Louse Killer Kills Lice

**BARRED PLYMOUTH ROCKS**—Large pure-bred, good laying strain; have free range; eggs, fresh, select, packed carefully, \$1 per 30; \$1.50 per 45; orders filled promptly. Emma Bauer, Beattie, Kans.

**FOR SALE**—Barred Plymouth Rocks, exclusively. Fresh eggs from mature stock, carefully packed. Mrs. T. B. Shulsky, Denton, Kans.

**MAMMOTH BRONZE TURKEY EGGS**—\$3. for 9 from choice hens and 34 pound young tom. Also a few Fox Terrier puppies. Safe delivery of eggs guaranteed. Mrs. A. E. Harness, Route No. 1, Speed, Mo.

**B. P. ROCKS AND BUFF ORPINGTONS**—Eight grand matings. Send for price list on eggs and Collier pups. W. B. Williams, Stella, Neb.

**BARRED ROCKS**—40 cockerels, \$2 will buy a good one; 50 pullets, \$1 each, sired by a pure Braden cock. I have an orchard flock of 80 pullets mated with large, standard males, eggs \$1 per 15; \$5 per 100. A. C. Rait, R. 4, Junction City, Kans.

**BUFF PLYMOUTH ROCK EGGS** for sitting, \$1.50 for 15. Jay S. Buck, Okaloosa, Kansas.

**BARRED AND WHITE ROCK EGGS** for hatching from choice birds; farm raised. White Rock eggs, 15 for \$1; 30 for \$1.55; 45 for \$2.55. Barred Rock eggs, 15 for 75 cents; 30 for \$1.45; 45 for \$2.10. D. S. Thompson, Welda, Kansas.

**WHITE WYANDOTTE EGGS** for sale; \$1.50 per 15. Only breed of birds kept. Mrs. John W. Smith, Lawrence, Kansas.

**WHITE HOLLAND TURKEY EGGS**—\$1.50 per 9. R. J. Sweeney, Route 2, Maple Hill, Kansas.

**SILVER LACED WYANDOTTES**—Thoroughbred cockerels, \$2; pullets, \$1.50. Jewett Bros., Dighton, Kansas.

**GRM POULTRY YARDS**—C. W. Peckham, Haven, Kans. Pure-bred Buff Plymouth Rock eggs, 15 for \$2; 30, \$3.50. M. Bronze turkey eggs, 11 for \$3.

**EGGS FOR SALE**—S. C. W. Leghorns, W. Wyandottes, \$1 per 15. W. H. turkeys, \$1.50 per 9. Emeralds, 20c each. W. African guineas, \$1 per 17. All guaranteed pure-bred. A. F. Hutley, Route 2, Maple Hill, Kansas.

**FOR SALE**—Exhibition S. C. Black Minorca cockerels, \$2. I guarantee them. Address George Kern, 817 Osage street, Leavenworth, Kans.

**STANDARD-BRED SINGLE-COMB BUFF LEGHORNS**—Headed by first prize pen Chicago show 1903 and took six first prizes and first pen at Newton 1904. Eggs \$3 for 15. S. Perkins, 801 East First street, Newton, Kansas.

**S. C. W. LEGHORNS AND BUFF ROCKS**—Winners at State Fair. Eggs, \$1 per sitting. J. W. Cook, Route 3, Hutchinson, Kansas.

**BLACK LANGSHAN EGGS**—From birds scoring 95% to 96%, \$1.50 and \$2 for 15 eggs. Wm. C. Knapp, Pleasant Hill, Mo.

**WHITE WYANDOTTE COCKERELS**, (Stay White), \$1 to \$5 each. Eggs, \$1.50 per 15. S. W. Artz, Larned, Kansas.

**MAMMOTH BRONZE TURKEYS** for sale. Inquire of Mrs. T. M. Fleming, Fontana, Kansas.

**SINGLE-COMB WHITE LEGHORN COCKERELS**, 1 each; two or more, 80 cents each. Fine white, pure, thoroughbred birds. Also a few Barred Plymouth Rocks, barred to the skin—fine, pure and vigorous; hens, cocks and pullets, \$1 each; two or more 80 cents each. All of our customers are very well pleased. We will make reductions on large lots. Meadow Poultry Farm, Coulterville, Illinois.

**SILVER LACED AND WHITE WYANDOTTES** \$1 per sitting of 15. Eggs guaranteed. Circular free. R. C. Macaulay, Route 1, Frederick, Kans.

**Kansas Chick Feed**  
For baby chicks, a balanced ration which makes the little fellows hale, hearty and happy. Price, 25 pounds for \$1. Our Kansas Lice Killer is guaranteed to kill the lice; 5 packages for \$2, prepaid. W. E. Smith, Osborne, Kansas.

chances on that score but dust the birds once each week while sitting and just as often after hatching, until the young turkeys are well feathered and are noticed freely dusting themselves in fresh earth. After this insects will not cause further trouble.

If the turkey should want to sit in an inconvenient place, like the hen-house, I do not molest her for a few days until the incubating instinct is strong and not easily broken up. Then at night, I move her to some place where she will be undisturbed. An unused barn-floor is a good place. There food, grit, and water may be left, allowing her to come off at will. Sprinkle the eggs with warm water the last few days before hatching, and watch to see that the old bird does not leave the nest too soon.

Sometimes the first poults to hatch will fall out of the nest and their peeping may cause her to leave before all are out. In such cases wrap them warmly in flannel and keep by the kitchen fire. No food will be needed the first two or three days. Stale bread-crumbs squeezed from sweet milk is the best food, gradually getting them into Johnny cake by the time they are a week or ten days old. Light feeding will suffice, as there is danger of over-feeding or making them lazy. Once or twice a day lettuce, dandelions, or onion-tops should be cut up and fed with the cake, using one-fourth or one-third in bulk of the green food.

I have never had much luck cooping the young turkeys. If confined only a few days they would lose strength and droop. I now place them on the part of the farm where it is desired they should range, preferably in a pasture, where the grass is short. They are not let out in the mornings when small, until the dew is off unless the grass is very short.

When the turkeys are small the mother will not bring them home, so every afternoon about 5 o'clock, or earlier on cloudy days, I go after them. By waiting too long they will be located for the night and difficult to find unless their roosting place is known. They may usually be found at nearly the same place, since they take much the same route each day.

The automobile is making its way to the ends of the earth. In the upper part of Transkel (Kaffirland) a service of motor cycles has recently been established, ridden by natives, to carry the mails from Mount Frere to the outlying stations, and up on to Kokstad, a distance of seventy miles.

Make yourselves nests of pleasant thoughts. None of us as yet know what fairy palaces we may build of beautiful thought—proof against all adversity.—Ruskin.

## The Great American Hen.

The greatest thing in the United States to-day is the hen. Her portrait "rampant" ought to appear on every dollar, half, quarter and dime that Uncle Sam puts out; for the actual fact is "Biddy's" business brings in more of those same dollars, halves, and quarters than any other single—and I might almost say double—American industry. Three hundred million dollars' worth of poultry products is "Biddy's" yearly contribution to the farmers' pocket-book, and if the exact truth were known, a goodly number of those three hundred millions were made by men and women who have studied how to feed the hen.

Such men use good, sound, chicken sense. They begin with young chicks, and follow a consistent system of feeding all through the life of the hen; using with the regular ration, that wonderful discovery of Dr. Hess—Poultry Pan-a-ce-a—which builds healthy flesh, bone, and feathers, and makes early laying a habit. Now let me say right here that Dr. Hess' Poultry Pan-a-ce-a is not a stimulant. Rather, it is a health-giving tonic, which helps the hen to get out of her food all that Nature would otherwise supply.

Poultry Pan-a-ce-a helps the hen to digest her food properly, which of itself gives her health and vigor. It aids assimilation—every grain or particle of food goes where it is most needed, to build bone, flesh, feathers, and to make eggs, so that the greatest possible good is realized in the least possible time.

The saying that "an ounce of prevention is worth a pound of cure" is doubly true in the poultry business. The wise hen man cures his hens before they get sick, and his one certain agent for doing it is Dr. Hess' Poultry Pan-a-ce-a.

Poultry Pan-a-ce-a and Instant Louse Killer are the result of long study and experiment under just such conditions as the farmer meets with in his own yards.

Dr. Hess & Clark, of Ashland, Ohio, are so confident of the good you will get from these preparations that they are willing to give a written guarantee with every package. The cost is so small it's hardly worth considering.

Every Tuesday, balance of the year, the Chicago Great Western Railway will sell homeseekers' tickets to Minnesota, North Dakota, and Canadian Northwest at about half rate; to other territory first and third Tuesdays. Write G. W. Lincoln, G. P. A., 7 West 9th St., Kansas City, Mo. State number in party and when going.

## POULTRY BREEDERS' DIRECTORY.

**DON'T SEND EAST** for your Single Comb Brown Leghorns. In four shows this season I have won 15 out of 19 blue ribbons competed for, and in three of these shows have had highest scoring bird in the show. Scores as high as 96% by Owen and Atherton and 94% by Rhodes. Stock for sale. Eggs, \$1 for 15; \$6 for 100. CHAS. C. SMITH, Manhattan, Kansas.

**Pure Single Comb Brown Leghorn Eggs**—30 for \$1; 100 for \$3. F. P. Flower, Wakefield, Kans.

**Cornish Indian Game Eggs.**  
Write L. C. Horst, Newton, Kansas.

**Buff Leghorns** S. C. Eggs, 30 for \$1.25, 100 for \$3. John A. Reed, Route 3, Wakefield, Kans.

**HIGH CLASS POULTRY** Silver Wyandotte, White Wyandotte and White Plymouth Rock Eggs for hatching, \$1 for 15. R. F. Meek, Hutchinson, Kans.

**LIGHT BRAHMAS**  
More prizes than any breeder in the state; 10 first this season. Eggs, \$1.50. Cockerels, \$2 to \$4. T. F. Weaver, Blue Mound, Kansas.

**Eggs for Hatching**  
M. B. turkeys, \$3 per 10. Golden Wyandottes, \$2, \$1.50 and \$1.25 per 15. Satisfaction guaranteed. Mrs. A. B. Grent, Emporia, Kansas.

**Johnnie Chase, Glasco, Kas.**  
Breeds Black Minorcas, S. C. Brown Leghorns and Barred Rocks. Second to none in the state. Eggs, \$2 per sitting.

**W. P. ROCKS EXCLUSIVELY.**  
Eggs for hatching 15 for 75 cents; 50 for \$2.  
MRS. ALICE PERKINS,  
Munden, Kansas.

**BUFF ROCK EGGS**  
Here they are. Good ones. Fifteen for \$1; 45 for \$2.50; 100 for \$5. Orders filled in rotation as received. Eggs ready now. H. M. Stephens, Munden, Republic County, Kans.

**Imported S. C. Black Minoras**  
The world's greatest laying strain. Eggs \$1.50 per 15; \$6 per 100. Send 5 cents for circular. Address George Kern, 817 Osage St., Leavenworth, Kans.

**SILVER WYANDOTTES** exclusively Blue ribbon winners at the State Fair and State Poultry Show. Eggs \$2 per 15; \$5 per 45, expressage prepaid. A few good cockerels for sale. W. R. Comstock, Station B, Topeka, Kans.

**Eggs For Hatching**  
WHITE HOLLAND TURKEYS, MAMMOTH PEKIN DUCKS AND BARRED PLYMOUTH ROCKS. \$1 per setting for any of the above, fresh eggs carefully packed and safe arrival guaranteed. A. F. Huse, Manhattan, Kans.

**White Plymouth Rocks**  
Scoring 95. Scored by Rhodes  
Eggs from selected pen, \$1.50 per 15. Eggs for incubators, \$5 per 100. Mrs. Ida Meier, Route 2, Lincoln, Kansas.

**15 BREEDS.** Pure-bred Chickens, Ducks, Geese and Turkeys. Largest poultry farm in southern Minnesota. Choice stock and eggs for sale. Catalogue free.  
H. H. HINIKER, Box 90, Mankato, Minn.

**Light Brahma Chickens**  
Choice pure bred cockerels for sale. Write or call on Chas. Foster & Son, Eldorado, Kan. Route 4

**S. C. Buff Leghorns, S. C. Buff Orpingtons**  
Jumbo Squab Pigeons (Useful Pigeons)  
Our catalog tells prices, prizes and quality. Send for it to-day. W. H. Maxwell, 1220 Quincy, Topeka, Kas

**PRIZE-WINNING S. C. BROWN LEGHORNS**  
Exclusively. (Short's strain.) Farm stock eggs from pen scoring 195, \$2 per 15; \$1 per 15 as they run. Incubator eggs a specialty.  
MRS. W. O. MAGATAGEN, BEATTIE, KANS.  
Mention KANSAS FARMER when writing.

**SAVE YOUR CHICKS.**  
Use the Itumar Mite and Lice Killer, a mite and lice destroyer. Guaranteed to kill mites and lice if properly used. If not satisfied return bottle and label and money will be refunded.  
CHAS. E. MOHR,  
Glendale Park, Hutchinson, Kans.

## Kansas Safety Incubators

Our machine is built on scientific principles and does its work promptly, requiring less attention than any other machine. Send for our catalogue which gives full particulars of our incubators and brooders.

W. E. Smith, Osborne, Kas.

## MILLER'S FAMOUS BARRED ROCKS

Every pen headed by a prize winner. First prize cockerel Kansas state show Jan. 1905. First prize cockerel St. Joseph, Mo. Jan. 1906. Second and fifth cockerel Kansas state show 1906. Also won first pullet Kansas state show 1906. First grand pen Kansas state fair Sept. 1905. If you want to raise first class stock get a sitting or two of eggs from my pens and you will be pleased with the results. Good hatches guaranteed. Send for descriptive circular. Price \$2 per 15 or \$5 for \$5.50. Let me book your orders now. A. H. Miller, Bern, Kans

## INCUBATOR EGGS

From high grade White Rocks and White Wyandottes.

**\$3.00 for 50, \$5.00 per 100**  
SEND FOR CIRCULAR.

W. L. BATES, Topeka, Kans.

## POULTRY BREEDERS' DIRECTORY.

**DON'T SEND EAST** for your Single Comb Brown Leghorns. In four shows this season I have won 15 out of 19 blue ribbons competed for, and in three of these shows have had highest scoring bird in the show. Scores as high as 96% by Owen and Atherton and 94% by Rhodes. Stock for sale. Eggs, \$1 for 15; \$6 for 100. CHAS. C. SMITH, Manhattan, Kansas.

**Barred Plymouth Rocks**  
Exclusively—"Superior Winter Laying Strain" noted for size and quality. Seventeen years of careful breeding. Eggs, 15 for \$1.30 for \$1.50. E. J. Evans, Route 4, Fort Scott, Kansas.

**Rose Comb Brown Leghorns**  
EXCLUSIVELY  
Farm raised. Eggs, per sitting of 15, \$1. Incubator users write for special prices in 100 lots.  
P. H. MAHON, Route 3, Clyde, Cloud Co., Kans

**ROSE COMB BROWN LEGHORNS AT READING, KAN.**  
Pure stock. 15 eggs \$1.00; 30, \$2.75; 75, \$4.00; 100, \$5.00. Main flock farm range. Have pen to furnish eggs no relation to stock or eggs sold last year. These are for my last year's customers.  
MRS. IDA STANDIFERD, "Up-To-Date" Farm.

## CHICK FEED

The cleanest, purest feed for baby chicks on the market. Every day egg producer on alfalfa mash, starts the hens to laying and keeps them laying. Wholesale poultry supplies. Send for circular.

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Wichita, Kansas

## Eggs for Hatching

Send for my special Barred Rock circular; also ten other varieties of choice standard leaders. All free. Write me your wants.

A. H. DUFF,  
Larned, Kansas

## White Plymouth Rocks EXCLUSIVELY.

Good for Eggs, Good to Eat and Good to look at  
W. P. Rocks hold the record for egg-laying over every other variety of fowls; eight pullets averaging 280 eggs each in one year. I have bred them exclusively for twelve years and have them scoring 94 to 96%, and as good as can be found anywhere. Eggs only \$2 per 15; \$5 per 45, and I prepay expressage to any express office in the United States. Yards at residence, adjoining Washburn College. Address THOMAS OWEN, Sta. B, Topeka, Kans.

## BUFF LANGSHANS \$4.00 per 13 eggs.

White \$2, Black \$2, \$1 and \$5 per 100; Buff Leghorns, Orpingtons, Cochins, S. & D. C. B. and White Leghorns, B. and W. Rocks, W. and S. L. Wyandottes, L. Brahmas, \$1.50 to \$2.00 per 15. Toulouse Geese eggs 20c each. M. B. turkeys, \$1.50 and \$2 per 9 \$8 per 100. Imported and native high-scoring blood in our yards. Mention Kansas Farmer when writing. America's Central Poultry Plant, J. A. Lovette Mullinville, Kans.

**STEINNESON'S CHICKENS**  
Winners at St. Louis and Portland. Farm raised. 15 varieties. Catalog FREE. Contains "Some Good Suggestions." Write. Steinneson & Co., 312 Market St., St. Louis, Mo.

**GREIDER'S FINE CATALOGUE**  
of Standard bred poultry for 1906, printed in beautiful colors, contains Fine Chromo, illustrations and describes 60 varieties. Gives reasonable prices for stock and eggs, tells all about poultry, their diseases, lice, etc. This book only 10 cents.  
B. H. GREIDER, RHEIMS, PA.

**\$12.50 For 200 Eggs INCUBATOR**  
Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day.  
GEO. H. STAHL, Quincy, Ill.

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We can furnish you bee and all kinds of bee-keepers' supplies cheaper than you can get elsewhere, and save you freight. Send for our catalogue with discount sheet for early orders.  
Topeka Supply House  
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**\$7.00 Buys the Best 120-EGG Incubator**  
freight prepaid, ever made.  
Double cases all over; best copper tank; hot water; self-regulating. Best 100 chick hot water Brooder \$4.50. Incubator and Brooder ordered together \$11.00. Satisfaction guaranteed. Our book, "Hatching Facts" tells all about them. Mailed free. Write today.  
Belle City Incubator Co., Box 18, Racine, Wis.

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## The Veterinarian

We cordially invite our readers to consult us when they desire information in regard to sick or lame animals, and thus assist us in making this Department one of the most interesting features of The Kansas Farmer. Kindly give the age, color, and sex of the animal, stating symptoms accurately, and how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply all letters for this Department should be signed with full name and should be addressed to the Veterinary Department of The Kansas Farmer, Topeka, Kans., or to Dr. C. L. Barnes, Veterinary Department, Kansas State Agricultural College, Manhattan, Kans.

If in addition to having the letter answered in The Kansas Farmer, an immediate answer is desired by mail, kindly enclose a 2-cent stamp. Write across top of letter: "To be answered in Kansas Farmer."

**Horse with Sore Tongue.**—I have a horse with a sore tongue; she began to fall last September, lost her appetite and flesh; she looks pretty well out of her eyes. Her tongue swelled three times the natural size, was red and "furry," with 6 sores around top edge of tongue—one at the end of tongue the size of a quarter, and one at the base the size of a dollar. I can find no one who can give me a remedy. The tongue at present is down to natural size, but she is not doing well. Can you tell what the trouble is, and a cure? J. C. H.

Humboldt, Kans.

**Answer.**—From the symptoms you give of your horse with a sore tongue would think that the condition came from an irritant of some kind that the animal had eaten, or some foreign substance that had become lodged in the tongue; from the fact that your animal is not doing well at present would advise your getting the following condition powder filled and give in the feed, ground feed being preferable: One ounce of nux vomica, 2 ounces pulverized gentian, 2 ounces pulverized fenugreek, 8 ounces pulverized glycyrrhiza root, 1 ounce pulverized potassium iodide; mix and place in 10 pounds of oil meal; give a heaping teaspoonful night and morning in ground feed.

**Horse with Watery Eyes.**—I have a horse that has had a running at the eyes for the past two months; they look all right but water all the time. Can you tell me what is the trouble and a remedy? W. F.

Elmdale, Kans.

**Answer.**—There is probably some inflammation in your horse's eyes; would advise your poulticing the eyes with hot water, as hot as the animal can stand; apply the water to the eye by soaking a large piece of cotton, having the cotton attached to a piece of cheese cloth and tied to the halter; change the poultice as often as it gets cool.

**Sore on Gelding—Calves with Ringworm.**—I have a light bay gelding, 3 years old, that has a sore 2 inches above the ankle on right hind leg; it is about the size of the end of my finger and extends out so that when I run the curry comb over it it bleeds. Will you please tell me what the sore is, and a remedy?

I also have some calves with spots around their eyes and necks with the hair rubbed off. What is the cause, and what can I do for it? H. A. U.

Rozel, Kans.

**Answer.**—It is not uncommon for a sore to come on the legs of horses such as you describe, especially if any filth has been allowed to accumulate. Apply the following powder to the sore after it has been washed with clean water to which have been added a few drops of carbolic acid: Iodiform 1 ounce, tannic acid 2 ounces, acetanilid ½ ounce, boric acid ½ ounce. Mix and place in a dusting box, keep wound covered with this powder. Do not tear the scabs off as they form, but allow them to peel off of their own accord.

The calves evidently have ringworm and I would advise your using a disinfectant, any that will not run into the eye will be desirable. Bathe the areas with a weak solution of one of the common disinfectants, and then apply a preparation of lard and sulfur. A few applications will remedy the trouble.

**Weakness in Mare.**—I have a large mare 11 years old; she has been bred to a jack every year for seven years. One year she did not have a colt; last year she had a colt which stood and sucked, but when a day old died. This spring she had a colt that was small but lively; he sucked and seemed to be in perfect health. The next morning I found him dead in corner of box stall; no external injuries. I shall not breed her this year. How do you account for it? C. D. A.

Hickmans Mills, Mo.

**Answer.**—There is evidently some weakness which would be considered constitutional in the case of your mare. Would therefore advise your giving the

animal a course of treatment to build up her condition before raising any more colts. Use one of the condition powders that you have seen recommended in these columns.

**Cocked Ankles.**—Can a horse that has cocked ankles be cured if taken in time. He only shows signs after a hard drive. J. E. S.

Lakin, Kans.

**Answer.**—If a horse is properly cared for after a long drive the cocked ankles can be prevented by rubbing and poulticing with antiphlogistine and then bandaging so as to hold the ankles in position.

**Mare Out of Condition.**—I have a 12-year-old sorrel mare that had distemper for several weeks, and then a bunch came on the small of the back and hips, and in a few days her limbs and breast were swelled so she could hardly move. She has been in this condition for ten days. She has a good deal of fever in her limbs. What can I do for her? M. T.

Traver, Kans.

**Answer.**—I would advise using a teaspoonful of nitrate of potash in the mare's drinking water night and morning. Apply hot water to the limbs, rubbing them thoroughly for several minutes after using the water, then apply a liniment that will not blister.

**Indigestion.**—I have a 5-year-old bay mare that breathes as if in pain; she will breathe naturally for a minute or two then inhales and exhales with a grunt. She has been in this condition for a month. I work her all the time on the farm. V. M.

**Answer.**—The condition you mention with your mare is often brought about by digestive trouble coming on from feeding alfalfa or dusty hay. The remedy is to take away the feed that is causing the trouble and feed very little roughness and considerable grain for a month or more.

**Lump on Mare's Jaw—Horses Have Worms, Etc.**—I have been using the liniment you prescribed for the lump on my mare's jaw; the lump gets no larger or smaller. The sore is growing larger and discharges a white matter; what would be best to use to clean the sore out?

I also have some young horses that seem to be hide-bound and wormy; they rub a good deal; have had grain all winter but are not doing well. A. R. J.

McPherson.

**Answer.**—I would advise opening the lump on the mare's cheek, and then heal the wound by the use of some of the common disinfectants which are found on the market. If you have nothing else a half teaspoonful of carbolic acid in a quart of water makes a good disinfectant.

I would advise using oil-meal for the animals that are hide-bound; give them plenty of salt and I think this will rid them of the worms. If it fails to do so, give 1 ounce of turpentine to a dose, six hours apart until you have given 4 doses, while the animals are fasting. It would be best to give the turpentine in half a pint of raw linseed oil. C. L. BARNES.

### Hebrew's Hog Sale.

(Continued from page 463.)

China hogs and has recently added to his herd some of the best blood in the country. If you will notice the accounts of the most prominent sales which have been held during the past year, you will find that Mr. Hebrew's name is among the buyers of the high-priced stuff. Col. John Brennen cried the sale, and the following is a list of the buyers:

T. M. Cooper, Stockton; G. N. Johnston, Stockton; L. L. Marshall, Stockton; J. M. Mellon, Stockton; Jack Dryden, Stockton; Thos. Shaw, Stockton; J. G. Woodrum, Stockton; W. T. Low, Jewell City; C. N. McNulty, Stockton; Jack Shaw, Stockton; W. E. Daniels, Stockton; V. Hollenworth, Stockton; E. G. Davis, Stockton; Richard Mar-Jewell City; C. N. McNulty, Stockton; Ed. Hays, Stockton; O. B. Smith, Cuba; F. Schruben, Stockton; Ed. Hederhorst, Stockton; T. M. Cooper, Stockton; D. W. Cook, Stockton; A. J. Iman, Stockton; A. H. Sanders, Stockton; O. Hazen, Stockton.

### Gossip About Stock.

G. H. Ramaker, of Prairie View, Kans., has a fine herd of Duroc-Jersey hogs. His herd was started about four years ago, and he has taken great pains to get good foundation stock. Among his brood sows we found Perfection Girl 98904 by Red Perfection, dam Iowa Girl; Gold Mine 77498 by Missouri Boy; Prairie View 77504 by Missouri Boy; and others equally as good. His herd book is Journal 2d by Duroc Jim 22829, dam Chandler's Journal 31998. Mr. Ramaker will be an advertiser in this paper later in the season. Watch for it as he will have some bargains.

Volume 64 of the American Short-horn Herd Book is off the press and ready for distribution. It contains the pedigrees of bulls numbered from 242180 to 247190, both inclusive, and the pedigrees of 6857 females. The price of this volume to non-members is \$3.30, postage prepaid. Volume 65 is now in press and entries for Volume 66 have been closed. All names sent in

hereafter will appear in Volume 47 or a later one. Address Secretary John W. Groves, Live Stock Record Building, Chicago, Ill.

Hon. T. A. Hubbard, who is known throughout Kansas as the owner of Rome Park Stock Farm, and who has long been a very active member of the Kansas State Board of Agriculture, still keeps close to the alfalfa roots by raising some of the best hogs in Southern Kansas. Just now he has a nice bunch of Poland-China boars and bred sows for sale. Twenty-five of the boars are ready for service now, though he can furnish pigs if desired. With the blood of Lamplighter Jr. 35311, Medler 39541, Simply O. K. Jr. and Perfection 38771 in his herd he is able to supply the best. He also has some fine Berkshires from Rutger Judge 3d 24680, Hubbard's Jumbo 85973, Baron 86921 and Royal Dick 88116, who have each found a home at the head of this herd. Mention THE KANSAS FARMER and write for these hogs.

### Farming Lands in New Zealand.

The New Zealand Government, knowing they have one of the best agricultural countries in the world and desiring to increase their population by having settle among them, English speaking farmers from America, have entered upon an extensive advertising campaign in this country to show American agriculturists the opportunities they have for bettering their condition in New Zealand.

The country is marvelous in every way, a moderate climate, no extremes of heat or cold. Enormous crops are raised of all such products as are grown in temperate climates. Potatoes, turnips, and mangels are measured by the ton rather than the bushel. Wheat, oats, barley and fruit are produced in immense quantities. It is one of the greatest sheep-raising countries in the world. The dairy exports amount to millions of dollars annually. Farmers are prosperous everywhere. The New Zealand Government aids and assists them in every way and loans money to settlers at 5 per cent per annum.

The country has less than a million population. There are 276,000 people, or almost one-third the population who have money in the savings banks amounting to \$43,331,000. The country has never had a drouth or failure of crops.

The Government has millions of acres of land for sale to farmers. It issues very handsome literature with illustrations of farm lands, stock, etc., and gives a full and accurate account of the country as it is, what lands are worth, etc. This literature is sent free by the Government to any address upon request, and if any of our readers are interested in knowing more of this magnificent country, we suggest they write at once for literature and information to Mr. T. E. Donne, Superintendent, Government Department, Wellington, New Zealand. See advertisement on page 476.

### Earthquake in Wisconsin.

Kendalls, Wis., April 11.—By special dispatch.—The following telegram tells how three separator manufacturers met an earthquake that jarred the ground under their feet.

Kendalls, Wis., April 11. The Sharples Separator Co., Chicago. "In the presence of forty dairymen, Tubular won big contest here yesterday, over three competitors. Sold committee six sizes."

Mr. Maire is the traveling representative of the Sharples Separator Co., of West Chester, Pa., Chicago, Ill., and Toronto, Canada, manufacturers of the famous Sharples Tubular Cream-Separator. The Sharples Separator Co. certainly seems to have things about its own way, easily winning all public contests in which it enters its machines. This contest certainly proved an earthquake to the three defeated competitors, as Mr. Maire's telegram says they were not only defeated but that six of the popular number six Tubular Cream-Separators were sold on the spot as a result of this contest.

## CHEAPER FARM LAND

### SOUTHWEST OFFERS BEST OPPORTUNITIES FOR SECURING HOMES

Many farmers in the Northern and Eastern States are selling their high priced lands and locating in the Southwest. Many who have been unable to own their homes in the older country are buying land in the new country.

Unusual opportunities exist along the lines of the Missouri Pacific-Iron Mountain Route. The rich, alluvial, delta lands and river bottom lands of Southeast Missouri, Eastern Arkansas, Louisiana, and Texas, capable of producing 60 bushels of corn, 40 bushels of cotton, 4 to 6 tons of alfalfa, 150 bushels of potatoes, and other grains, vegetables and hay crops, can be bought for \$7.50@15 per acre. When cleared and slightly improved will rent for \$4 @6 per acre cash.

Uplands more rolling, lighter soil, adapted to fruit-growing—peaches, pears, plums, grapes, berries—also melons, tomatoes, and other vegetables, can be bought for \$5@10 per acre in unimproved state. Many places with small clearings and some improvements can be bought very cheap.

This is a fine stock country. No long winter feeding. Free range, pure water, mild climate. A healthy, growing country, with a great future. Write for map and descriptive literature on Missouri, Arkansas, Louisiana, Texas, Kansas, or Indian Territory. Very cheap rates on first and third Tuesdays of each month.

Address, C. D. BOYD, T. P. A., Indianapolis, Ind., or H. C. TOWNSEND, G. P. & T. A., St. Louis, Mo.

## KENDALL'S SPAVIN CURE

Time tried. Stands every test. Spavin, Ringbone, Curb, Splint, Lameness, Swellings—all readily yield to the great horse remedy.

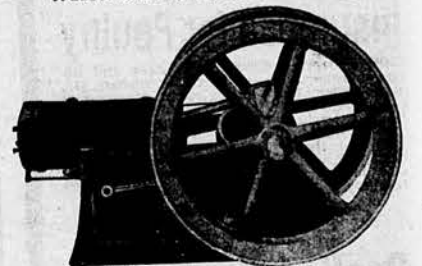
**ALWAYS ON HAND.**

Morris Plains, N. J., June 14, 06.  
Dr. B. J. Kendall Co.,  
Dear Sir:—Please send me your Horse Book. Kendall's Spavin Cure is the best liniment I ever used; have used it for three years and always kept it on hand. Respectfully, W. E. Teets.  
\$1 a bottle. Six bottles for \$5. Greatest known liniment for family use. All druggists sell it. Accept no substitute. Our great book "A Treatise on the Horse," free from druggists or  
Dr. B. J. Kendall Co., Kennebunk Falls, Vt.

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A popular engine at the right price.

Also Power and Sweep Feed Grinders  
Write for illustrated catalog.



**WATERLOO GASOLINE ENGINE CO.**  
1014 Cedar St., Waterloo, Iowa.

best by Test—75 H.P. We **PAY CASH** for old machinery. **WANT MORE SALESMEN** Weekly. **Stark Nursery, Louisiana, Mo.; Huntsville, Ala.**

**SEEDS That will Grow PLANTS**  
None better, even at the high prices. Special bargains: SEEDS, 10 pkts. Annual Flowers, 10¢; 5 pkts. Vegetables, 10¢. PLANTS, 6 pkts. 5¢; Geraniums, 5¢; 6 Begonias, 5¢; 4 Poinsettias, 5¢. My catalog prices will surprise you. Catalog and packet Royal Giant Plants free.  
A. C. Anderson, Columbus, Nebraska.

## SEED CORN

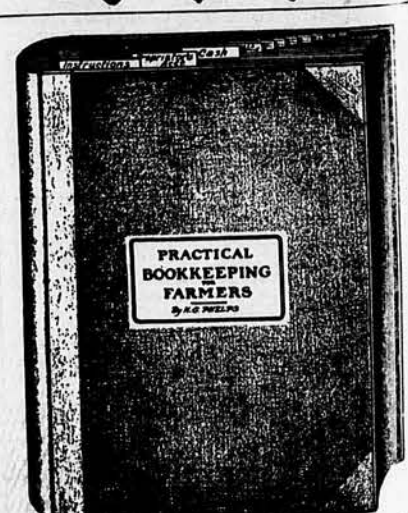
Boone County White, Farmers' Interest, Reid's Yellow Dent, Improved Leaming and Riley's Favorite, best pedigreed and tested seed, grown on my own farms, \$1.50 per bu. Shocks free. Delivered on car for any station in the United States.

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## World's Premium Seed Corn, HOWARD COUNTY WHITE

Awarded first and third premium at State Corn Show in St. Louis 1904, and gold medal at World's Fair in 1904. Has won all premiums wherever shown for the past six years. Hand rubbed and graded, making all grains uniform in size. For particulars address,

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The farmer's guide to success in farming. A book for actual use in keeping all farm accounts in. A full set of farm and live stock accounts worked out in detail. Any farmer can keep track of his business, should have one of these books.  
Price delivered.....\$3.00  
Kansas Farmer, one year.....1.00

Total.....\$4.00  
Both for.....\$2.50  
Address  
**KANSAS FARMER CO., Topeka, Kans.**



# Weather Bulletin.

Following is the weekly weather bulletin for the Kansas Weather Service, for the week ending April 23, 1906, prepared by T. B. Jennings, station director:

## CLIMATOLOGICAL DATA FOR THE WEEK:

	Temperature.				Precipitation	
	Maximum.	Minimum.	Mean.	Departure from normal.	Total.	Departure from normal.
<b>WESTERN DIVISION.</b>						
Cimarrón.	80	39	58	...	0.48	....
Colby.	78	31	55	...	1.50	....
Coolidge.	82	35	58	...	1.33	....
Dodge City.	81	39	56	+1	0.12	-.26
Dresden.	77	33	56	...	1.03	....
Englewood.	84	38	56	...	0.55	....
Farmersville.	84	35	55	...	0.76	....
Jetmore.	88	36	56	...	0.35	....
Lakin.	86	36	54	...	2.00	....
Scott.	80	37	58	...	1.00	....
Wamego.	78	36	56	...	0.80	....
<b>MIDDLE DIVISION.</b>						
Clay Center.	81	29	53	...	T	....
Concordia.	78	32	59	+3	T	-.56
Eldorado.	84	35	...	...	0.00	....
Ellinwood.	84	32	58	...	0.00	....
Hays.	81	34	56	...	0.46	....
Prairie.	80	38	59	...	0.00	....
Republic.	80	28	57	...	0.09	....
Rome.	80	35	...	...	0.01	....
Salina.	84	29	59	...	0.10	....
Wichita.	83	39	61	+3	T	-.73
Winfield.	82	42	61	...	0.00	....
<b>EASTERN DIVISION.</b>						
Agricultural Col.	86	29	61	...	0.01	....
Burlington.	87	34	61	...	0.00	....
Emporia.	82	33	60	...	0.00	....
Fall River.	86	35	61	...	T	....
Frankfort.	79	28	53	...	0.00	....
Grenola.	85	35	60	...	T	....
Iola.	84	37	62	...	T	....
Kansas City.	82	37	61	+6	0.49	-.21
Pittsburg.	87	35	63	...	0.00	....
Pleasanton.	84	32	59	...	0.00	....
Topeka.	82	36	61	+2	0.01	-.57

## GENERAL CONDITIONS.

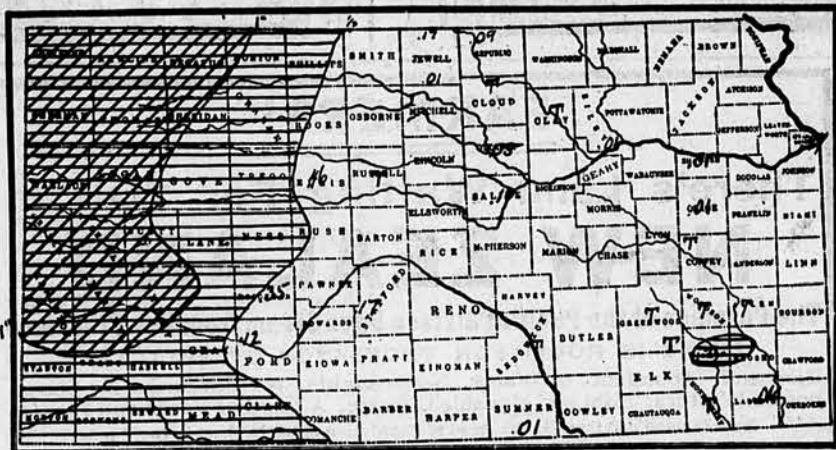
The past week has experienced extremes in temperature and precipitation yet the weather has been springlike. The week began with low temperatures over the State, the minimum temperature being 28° in the northern

15th but was seasonable on the other days, reaching a maximum of 83° on the 21st. Labette.—The weather was a little cool the first of the week, the temperature falling to 35° on the morning of the 15th, but after that date the maximum temperatures ranged in the seventies each day. There was a light shower on the 20th. Linn.—The first of the week was cool with a minimum temperature of 32° the morning of the 15th, but it gradually got warmer and a maximum of 84° was registered on Saturday. All the days excepting one were clear. Lyon.—The nights were a little cool the first of the week but the days were warm and pleasant with maximum temperatures generally in the seventies. Saturday was the warmest day. There was no rain and most of the time it was clear. Marshall.—Every day was clear and there was no rain. Maximum temperatures ranged in the seventies on all but the first day of the week, and minimum temperatures ranged in the forties on all days except the 15th, when a minimum of 28° was recorded. Montgomery.—It was cool the first of the week but there were summer temperatures the last of the week. The 15th and 20th were cloudy with a trace of rain on the 20th. Timber belts and orchards are getting green, hedges are leafing, and lilacs are in bloom. Osage.—There were light showers the first two days of the week with a minimum temperature of 33° Sunday morning, but after that the weather was fair with maximum temperatures in the seventies. Riley.—It was cold enough on the morning of the 15th to form thin ice but it seems to have done no damage. The days have been warm and pleasant with the nights a trifle cool. Northeasterly winds have generally prevailed. Shawnee.—This has been a very pleasant week. The first two days were a little below normal in temperature with a light frost the morning of the 15th. The temperature and sunshine for the week were above normal. A light rain fell on the 19th. There were no high winds during the week. Wilson.—The first four days of the week were warm and pleasant. On Friday there was a very beneficial thunderstorm and 70 of an inch of rain fell. It was a little cool the morning of the 15th but the days were warm. Woodson.—The week has been fair and pleasant with only three partly cloudy days and no cloudy day. The minimum temperature was 33° on the 15th and the maximum was 83° on the 21st. Wyandotte.—Excepting the first two days which were cool, the temperature was warm and seasonable. A thunderstorm with a fairly good rain occurred on the evening of the 19th and was followed by warm, sunny weather the balance of the week.

## MIDDLE DIVISION.

Barton.—The week was partly cloudy. There was one cloudy day but no rain. The high-

## RAINFALL FOR WEEK ENDING APRIL 21, 1906.



SCALE IN INCHES:

Less than 1/4. 1/4 to 1. 1 to 2. 2 to 3. Over 3. T, trace.

counties east of Phillips County, and 29° in Clay, Riley, and Saline Counties with a light frost extending to the southern line of the State. The temperature rose rapidly for two days, then remained nearly stationary until Saturday when a warm wave crossed the State, giving a maximum of 88°, and a weekly range of temperature for the State of 60°. The precipitation occurred generally on the 19th. In the extreme western counties it began on the 18th and ended on the 19th. Several counties in the middle and eastern divisions report no precipitation, several report a trace. In the Kaw Valley it was light. Fair showers occurred in the western counties of the middle division, with heavy rains generally over the western division—the reports showing the ground to be thoroughly soaked in the western portion of the western division.

## CONDITIONS IN DETAIL.

### EASTERN DIVISION.

Allen.—The week was warm and pleasant with light winds averaging from 3.3 to 6.6 miles per hour. No precipitation except a trace of rain on the 21st. There was a light fog in the early morning of the 21st. Anderson.—A warm week with much sunshine. Good growing weather. Bourbon.—Thursday and Friday were cloudy but the rest of the week was clear with seasonable temperatures. The highest temperature was 86° on the 21st. There was no precipitation. Chase.—The weather has been fair, the only precipitation was .03 of an inch on the 19th. Thursday was cloudy but there was plenty of sunshine the other days. Trees and grass look green again. Chautauqua.—Very pleasant weather with very few clouds on any day except Tuesday. There was no rain during the week. Coffey.—Very pleasant week with uniform day temperatures. The lowest temperature was 34° on the 15th and the highest was 87° on the 21st. There was no rainfall. Crawford.—Fine growing weather since Monday. Only a few scattered showers. Thursday and Friday were cloudy but the rest of the week was clear. Elk.—There was a light frost on the 15th but it did no damage. Good weather has prevailed all week with very light showers on the 17th and 20th. Greenwood.—A warm, pleasant, sunny week. There was no rain except a light shower on the 17th. The highest temperature was 85° on the 21st and the lowest was 34° on the 15th. Jefferson.—A light frost was observed on the morning of the 15th. It was a good week for outdoor work. There was no rain and there was plenty of sunshine. Johnson.—The weather has been fine. It was partly cloudy Thursday but the other days were clear. The temperature fell to 31° on the

est temperature was 84° on the 21st and the lowest 34° on the 15th. The 17th was windy. Butler.—This has been a pleasant week with seasonable temperatures. The coolest weather was the first of the week with a minimum of 35° on the 15th, but it gradually warmed up and a maximum of 84° was recorded on the 21st. Clay.—There was a light frost on the morning of the 15th with a minimum temperature of 29°, but the balance of the week was warm and pleasant. The only precipitation was a light shower on the 17th. Cloud.—The first two days of the week were cool but the remainder of the week was from 2° to 9° above the seasonal average. The sunshine was 49 per cent of the possible amount. There was a trace of rain on the 19th. Cowley.—This has been a dry week with two days cloudy and one partly cloudy. The temperatures were very uniform, the maximums ranging in the seventies on all but the last day and the minimums generally being in the forties and fifties. Ellis.—The first of the week was cloudy and a little cool. On the 19th, .26 of an inch of rain fell. The last two days were clear and warm. Ellsworth.—The minimum on the morning of the 15th was 32° but there was a gradual warming up after that and summer temperatures prevailed the last two days. The highest temperature recorded was 87° on the 20th. There was no rain. Jewell.—Seasonable temperatures prevailed with light showers on the 15th, 16th, and 19th. The lowest temperature was 28° on the 15th, after that the maximums generally ranged in the seventies. McPherson.—There were no rains. The weather was cloudy except the last three days. There were no frosts. Ottawa.—The weather has generally been clear and seasonable with light showers on the 15th and 16th. Pratt.—The weather has been very uniform and pleasant, but it was windy on the 15th and 17th. The lowest temperature was 38° on the 15th, and the highest was 80° on the 21st. Reno.—The week was rainless. The middle part was partly cloudy to cloudy but the fore part and latter part were clear. Maximum temperatures generally ranged in the seventies. Republic.—There were light showers on the 16th and 18th, and the 19th was cloudy but the rest of the week was clear and the weather was seasonable. Russell.—There was a trace of rain on Friday. It was a little cool the morning of the 15th with a minimum of 34° but summer temperatures prevailed the last of the week. The maximum temperature was 82° on the 21st. Saline.—There was a very noticeable frost the morning of the 15th with a temperature of 29°. Seasonable temperatures prevailed the balance of the week. There was a trace of

rain on the 15th and a light shower on the 20th but none on the other days. Sedgwick.—Light frost was observed on the morning of the 15th. The temperature was below normal the first three days and above the last four. With the exception of a trace of rain on the 15th the week was without precipitation. The weather was clear on the 15th, becoming partly cloudy on the 16th and clear again on the 20th. Stafford.—Seasonable temperatures prevailed after the 15th, which was a little cool. .17 of an inch of rain fell on the 20th but none on the other days. Sumner.—A light frost occurred on the 15th but the week was warm and pleasant with only .01 of an inch of rain. The highest temperature was 80° on the 21st and the lowest, 35° on the 15th.

## WESTERN DIVISION.

Clark.—The weather has been unusually favorable with rain on only one day, and seasonable temperatures. Decatur.—There was a trace of rain on the 18th and a heavy rain of 1.03 inches on the 19th. The rest of the week was clear. Temperatures were generally seasonable except that it was a little cool on the 15th and 19th. Finney.—The weather was generally warm with a rainfall of 1.40 inches on Thursday. The ground is now thoroughly soaked. Ford.—The 15th, 17th, and 19th were below the normal temperature, and the other days were above the normal. There were light showers on the 15th, 16th, 19th, and 20th. The sunshine for the week was 68 per cent of the possible amount. Gove.—It was a fine week with a moderately heavy shower on the 19th. The highest temperature was 78° on the 18th and the lowest was 41° on the 20th. Grant.—There was rain on the 19th and 20th. The only clear day was the 18th. Gray.—Showers fell on the 16th, 19, and 20th. All the days up to the 21st were cloudy or partly cloudy. The maximum temperature was 80° on the 21st, and the minimum was 30° on the 15th. Hamilton.—Showers fell on the 17th, 18th, and 19th. The 17th, 18, 20th, and 21st were warm but the other days were a little cool. Hodgeman.—There was .35 of an inch of rain fell on the 19th but none on the other days. Maximum temperatures ranged in the sixties or seventies and minimum temperatures generally in the forties. Kearny.—A heavy rain fell on the 19th and a moderate shower on the 20th. The temperature fell to the forties at nights and rose to about seventy each day. Lane.—The 16th and 17th were partly cloudy with considerable wind. On the 19th a fine rain fell. The 20th was clear and warm. Scott.—An inch of rain fell on the 19th and a trace on the 15th. The highest temperature was 80° on the 21st and the lowest was 37° on the morning of the 20th. On the other mornings the minimum recorded was in the forties. Thomas.—On Wednesday and Thursday a total of an inch and a half of rain fell. Friday and Saturday were beautiful spring days. Trego.—A good shower fell on the 19th which was a rather cool, cloudy day. Maximum temperatures generally ranged in the seventies the rest of the week. The minimum did not fall below 40° after the 16th.

## Grain in Kansas City.

Receipts of wheat in Kansas City today were 73 cars; Saturday's inspections were 34 cars. Offerings were large. A few early sales of milling wheat were at unchanged prices. The general demand was poor, and average prices were 1/2c lower. The sales were: No. 2 hard, 1 car fancy yellow 83c, 2 cars turkey 81 1/2c, 1 car turkey 81c, 4 cars 81c, 5 cars yellow 81c, 3 cars 80 1/2c, 7 cars 80c, 3 cars 79 1/2c; No. 3 hard, 1 car turkey 81c, 1 car 78 1/2c, 1 car 78c, 7 cars 77c, 5 cars 76c, 6 cars 75c; No. 4 hard, 1 car 75c, 4 cars 72c, 3 cars 71c, 2 cars 70c, 1 car 68c, 1 car 67c, 1 car 66c, 1 car 65c; rejected hard, 1 car 65c, 5 cars 62c; No. 2 red, 1 car 91c; No. 3 red, 1 car 87c; No. 4 red, 1 car 86c; No. 2 mixed, 2 cars 88c; No. 4 mixed, 2 cars, 65c. Receipts of corn were 60 cars; Saturday's inspections were 37 cars. There was an increased supply, but the demand was good. Prices were unchanged to 1/4c lower, as follows: No. 2 white, 1 car 48 1/2c, 3 cars 48c; No. 3 white, 5 cars 47 1/2c; No. 2 mixed, 5 cars 46 1/2c, 10 cars 46 1/2c; No. 3 mixed, 2 cars 46 1/2c, 10 cars 46 1/2c; No. 4 mixed, 1 car 46c; No. 2 yellow, 2 cars 47 1/2c, 10 cars 47c. Receipts of oats were 31 cars; Saturday's inspections were 17 cars. The offerings were large, the demand was fair. Sales were made at Saturday's prices to 1/4c lower, as follows: No. 2 white, 1 car 32 1/2c, 1 car 32 1/2c, 1 car 32c, 1 car color, 31c; No. 3 white, 1 car 32c, 3 cars 31 1/2c, 5 cars 31c, 1 car color 31c; No. 2 mixed, nominally 31@31 1/2c; No. 3 mixed, 1 car 30 1/2c. Barley was quoted 41 1/2@43 1/2c; rye, 55@57c; Kafir-corn, 80@85c per cwt; bran, 95c@1; shorts, \$1@1.05 per cwt; corn chop, 88@90c per cwt.

## Kansas City Live Stock Market.

Stock Yards, Kansas City, Mo.

April 23, 1906. Cattle receipts were badly distributed last week, 22,000 head arriving Monday and Tuesday, which caused a loss of 10@15c in prices, while only 10,000 head came in the balance of the week, so that about all the loss was recovered. Buyers claim dressed meat is moving slowly, and that they have plenty on hand, but when it became apparent Wednesday that few cattle could be counted on balance of the week, trade became more active and the market advanced a little. The run last week was smaller than corresponding week a year ago, the first time this has happened since first of January. All classes of country grades moved more free than heretofore, the number held over for the week being decreased 2,400 head as compared with end of previous week, and reduced to 1,800 head all told. The supply to-day is 11,000 head, a moderate run is at other points, and the market is steady. Packers are killed out clean as the run was small after Tuesday last week, and speculators have few on hand, so that trade to-day was active on all kinds, a thing in itself equivalent to an advance of 5@10c, as against a slow market. The best steers last week sold at \$5.70, but not nearly as many cattle sell above \$5.35, which is the top to-day, as formerly, because not as many good ones are coming, not that they are any lower. The market to-day is considered 15c higher than last Wednesday, bulk of steers \$4.65@5.25, the Northern Kansas and Nebraska cattle, which make the bulk of the beef steers now,

# NEW BOOK JUST ISSUED SUCCESSFUL FRUIT CULTURE

A Practical Guide to the Cultivation and Propagation of Fruits.

By SAMUEL T. MAYNARD,  
Formerly Professor of Horticulture at the Massachusetts Agricultural College.

This book is written from the standpoint of the practical fruit grower; it is up to date in every particular, and covers the entire practice of fruit culture. It gives in plain, practical language, descriptions of such varieties as are most in demand in our markets, and the methods practiced by the most successful cultivators of many sections of the country. Separate chapters are devoted to the apple, pear, peach, apricot and nectarine, plum, cherry, quince, mulberry, grape, blackberry, raspberry, cranberry, strawberry, blueberry, huckleberry, sub-tropical fruits, propagation of fruit trees and plants, fruit growing under glass, insect pests and fungous diseases. The chapter on the apple is particularly comprehensive and complete, forming a monograph in itself. The chapter on forcing peaches, grapes, strawberries, and other fruits, describes the most successful methods of the present day, and is the most recent practical treatise on this important industry.

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KANSAS FARMER COMPANY

TOPEKA, KANSAS

selling generally at \$4.85@5.25. Heifers occasionally reach \$5, cows \$3.25@4.55, bulls \$3@4.15, veals 75c@1 lower than two weeks ago, at \$4.50@5.50, feeders \$4@4.75, stockers \$3.35@4.50.

Hog prices closed last week about steady with the close of the previous week, after selling higher Tuesday and Wednesday. Receipts were 56,000 head, against 48,000 previous week, and quality was a shade inferior, but still not indicating any rush to market. Prospects favor continued light runs and a strong market for the present, although a big run at Chicago to-day has put the price down there 10c. Market here is 5@10c lower, top \$6.45, bulk of sales \$6.30@6.40, weights below 200 pounds \$6.25@6.36, pigs \$5.30@6, supply 6,500.

Mutton receipts were principally lambs last week, but they advanced 25@40c, while sheep only gained 10@15c, supply was 31,000 head, an increase over the previous week, but as the mutton situation has improved packers bought them readily at the strong prices. Run to-day is 1,000 head, market higher, woolled lambs quotable at \$6.50@7, clipped lambs \$5.25@5.75, woolled yearlings up to \$6.25, wethers \$6, ewes \$5.75 clipped stock 80c@1 below these prices. As the weather gets warmer, clipped stock will be shown preference by the buyers. J. A. RICKART.

## South St. Joseph Live Stock Market.

South St. Joseph, Mo., April 23, 1906.

Arrivals of cattle both here and at the outside markets for opening day of the week did not indicate any curtailment in the cattle movement as a result of last week's slump in prices. The number in sight was the same as a week ago, but the bulk of this supply was concentrated in Chicago, forcing a decline there that was reflected back on the river markets. Locally the supply of steers was very moderate, but fully up to the demand. Prices ruled steady to firm on nearly all grades of light weight steers but were slow on anything of heavy weight. Cows and heifers were of moderate supply and the market was unevenly steady to 10c higher, the advance, however, being confined to a few small lots. There were not enough bulls and calves here, to test the market and prices were unchanged. Local dealers were disappointed in the small number of cattle coming to hands, and although having a small supply on hand, they were wanting cattle and willing to pay fully steady with last week's prices. Generally the outlook is considered as favorable to a steady market during the coming days of the week unless supplies of heavy steer should become large, in which case they would be apt to sell lower again, as it is now the time of the year when such cattle are discriminated against in favor of the lighter weights. The bulk of steers here to-day sold at \$4.65@4.90, with a very good class of steers weighing above 1,400 selling at \$5.10.

Receipts of hogs showed quite a marked increase over a week ago in the total at five points. As with cattle the bulk of the increase was shown in receipts at Chicago. The supply was large enough to give the packers a leverage which was used to the extent of a 5@10c decline with sales largely around 7 1/2c lower than Saturday. The quality of hogs was quite good yet not up to the standard of Mondays during recent weeks, the proportion of light and immature medium weights being larger than for some time past. The turn of the market to-day seems to indicate that with anything like reliable increase in receipts the packers will undoubtedly make a strong play to put prices on a lower level. The trade, however, is not looking for any material increase as farmers in a large section of tributary country are behindhand with their spring work and it is not believed they will leave their fields to market hogs. For this reason it is considered that prices will not go far below the present level in the near future. Hogs sold to-day largely at \$6.32 1/2@6.37 1/2 for light and mixed weights, and \$6.35@6.45 for medium and heavy weights. Arrivals in the sheep house to-day were nearly all lambs and all were of very choice quality. The market was in good, strong tone and all but one load of the lambs sold at \$6.90 which is 20c higher than the top last week for full loads. WARRICK.



## KANSAS FARMER.

Established in 1868.

Published every Thursday by the  
Kansas Farmer Co.,  
Topeka, Kansas

SUBSCRIPTION PRICE: \$1.00 A YEAR

Entered at the Topeka, Kansas, postoffice as second-class matter.

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Display advertising, 20 cents per line, single (fourteen lines to the inch). Continuous orders, run of the paper, \$1.50 per inch per week.  
Special reading notices, 30 cents per line.  
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FOR Red Polled bulls or heifers write to Otto Young, Utica, Kans.

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RED SHORTHORN BULL for sale. A. C. Rait, R. R. 4, Junction City, Kans.

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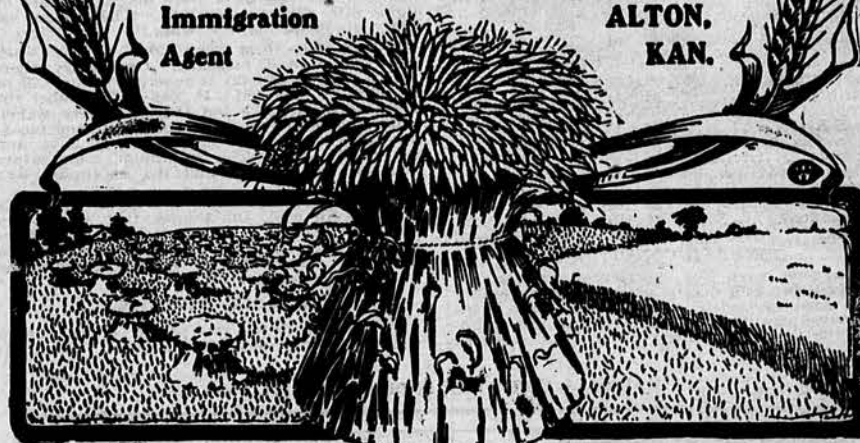
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Agrostologist, U. S. Department of Agriculture

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