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# KANSAS FARMER.

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The Iowa Swine and Corn-Breeders' Association and National Association of Expert Judges of Swine, will hold their annual meeting at Des Moines, June 14 and 15. Headquarters at the Kirkwood. Programs covering the leading topics of the day will soon be out. Prof. P. G. Holden will illustrate and demonstrate the breeding and culture of corn from a practical producer's standpoint. Hon. W. F. Har-

riman, chairman of World's Fair Live Stock Commission for Iowa, will attend with a view of perfecting the Iowa swine exhibit.

The National Good Roads' Association has reelected Col. W. H. Moore, of St. Louis, as its president, and R. W. Richardson, of Omaha, as its secretary. This is a merited recognition of the good work done in the past by these officers and a pledge that future work of the National Association will be even more efficient because of experience and knowledge gained in the past. The KANSAS FARMER congratulates the National Good Roads' Association upon the fact that it is able to retain the services of two men who have proved their worth and efficiency as have Colonel Moore and Secretary Richardson.

An insect pest has for a few years been doing serious damage to the cotton crop in Texas and has been spreading rapidly so as to threaten the crop of the entire South. The insect has been called the Mexican boll weevil. The Entomological Division of the Department of Agriculture has been seeking diligently for some means of combating this enemy. Spraying with poisons has given good results. But now comes an agent of the Department with a report that he has found in Gautamala a large reddish-brown ant which is the natural enemy of the weevils and keep them in check wherever the ants abound. The ants will be imported and carefully propagated in the Texas fields.

In the Breeder's Gazette for May 18, is a handsomely illustrated article on "A County Agricultural School," written by Mr. K. C. Davis, its principal. Mr. Davis is a graduate of the Kansas Agricultural College in the class of 1891 and was a classmate of F. A. Waugh, professor of horticulture in Massachusetts State University; F. C. Burtis, professor of agriculture of the Oklahoma Agricultural College; H. W. Avery, the big Percheron horse-breeder at Wakefield, Kans.; Phil S. Creager, telegraph editor of the Kansas City Daily Journal; Clay Coburn and his two sisters, children of Hon. F. D. Coburn; and the Rev. C. A. Campbell, of Denver, to whom is accorded the honor of delivering the baccalaureate sermon of his alma mater in the next commencement exercises.

### KANSAS IS FIFTY YEARS OLD.

The present week is a gala week in Topeka. A modest attempt is being made to celebrate the fiftieth anniversary of the admission of Kansas as a territory. The bill providing for the admission was signed by President Pierce fifty years ago last Monday.

While this bill was in some ways a disgrace to the Nation, it marked the beginning of the organized existence of a great commonwealth. The occasion received further attention at this time from the fact that this anniversary fell on Decoration Day. The festivities were therefore opened by the ceremonies conducted by the Grand Army of the Republic, ceremonies which have, and for a long time will

continue to have a pathetic interest for every loyal Kansan. The most prominent event of the day was an address by the Secretary of War, who came from Washington to Topeka for the purpose of delivering this address. It was a masterly review of events fifty years ago, and in it the speaker traced closely the development of political changes. The "Kansas-Nebraska Bill," as it was called, is not generally remembered with the aspersions cast upon it by free-state people at the time of its enactment. For a long time the construction of States and Territories had proceeded under the historic "Missouri Compromise," which provided that, while Missouri should be admitted as slave territory, future territories north of the south line of Missouri should be exempt from slavery. The Kansas-Nebraska Bill left the decision between free soil and slavery to the settlers of the territory. This led to the "border ruffian" outbreaks, whereby a class of freebooters from Missouri undertook to control the politics of the new territory of Kansas. To counteract this influence, settlers were encouraged to come to Kansas from various portions of the North. The appeal to arms was not long in developing what proved to be preliminary skirmishes of the great war which exterminated slavery. These skirmishes were fought on the eastern borders of the new Kansas territory.

While Judge Taft's address was mainly correct as to history, his information as to the free-state settlers who came to open Kansas and to make it their homes was sadly misleading. They were men and women of the highest character and noblest purpose, for which he gave them scant credit.

In describing the development of the State from these beginnings, Judge Taft showed a fairly good comprehension of the situation and the work accomplished.

Coming down to more recent dates he dabbled a little in politics, censuring Kansas for some of the acts which a majority of her voters thought wise. He also gave a gratuitous slap at our prohibitory system, characterizing it as rural and likely to pass away with further development of the intelligence of the people.

The entire week is to be devoted to a succession of events celebrating this fiftieth anniversary, and will be remembered as an enjoyable period, unless, indeed, the rain, which at this writing is setting in as if for a wet spell, shall interfere with the program.

### GOVERNMENT SURVEY CORNERS CONTROL.

EDITOR KANSAS FARMER:—On a section line the half-mile stone is not in line with the section corners, but is about ten steps north of a straight line joining these mile stones. The party on the north has now made a fence on a straight line from one mile stone to the other and in the center it is ten steps south of the half-mile stone or ten steps on my land. The line as marked by the stones has been recognized for eighteen years. The

markings three miles south are the same as above described.  
Greeley County. J. W. Cook.

In many parts of central and western Kansas the Government surveys were very inaccurately made and the markings are greatly out of line. Similar inaccuracies, though generally in less degree, are found in nearly all Government surveys.

The general Statutes of Kansas, chapter 29, section 9, in directing the county surveyor how to proceed in such cases says: "In the resurvey of lands surveyed under the authority of the United States, the county surveyor shall observe the following rules, to wit: First, section and quarter-section corners, and all other corners established by the Government survey, must stand as the true corners; \* \* \*

In passing on the case of McAlpine vs. Reicheneker, the supreme court held (39 Kas. Reports, page 257): "Where a tract of land has been partitioned, if the monuments or marks on the ground for the corners of the several allotments can be found, such marks or monuments must govern, and distances and bearings must be disregarded. If the monuments or marks on the ground are lost or obliterated, parol evidence may be introduced in connection with the record to show their location."

It is clear from the statute and the decision of the supreme court that the Government survey markings determine the location of corners and land lines.

In some parts of Kansas improvements have been made and lines have been and are observed at considerable variance from the Government markings. Doubtless there is coming a day of trouble for property-owners in such localities; for some owner will some time get cranky and want the old survey lines observed. Possibly his holding will be more valuable under a re-adjustment of the lines. He brings suit. The courts follow the statute and the ruling of the supreme court. Section lines according to Government survey are found to run through houses, to cut orchards in two, and to do many unseemly acts. Possibly some farms have a river for one boundary and a section line for the opposite side. The section line according to the Government survey may be found to be located several rods nearer the river than the boundary as now recognized. Such farms will be reduced in size if the matter gets into court.

In many communities where lines varying from those of the Government survey are observed there is now general satisfaction with the present boundaries. It will be wise in all such cases to secure an act of the Legislature legalizing the lines as now observed. These lines are usually those established by a county surveyor and are in many cases more accurate than the Government survey. They may be described in the suggested act as the lines established by such surveyor. If these lines have not been sufficiently marked it will be well for the county commissioners to cause proper monu-

(Continued on page 583.)

## Agriculture

### COMING EVENTS.

August 2, 1904—Kansas Good-Roads Association, Topeka, Kans.; Grant Billbe, president, Tola; I. D. Graham, secretary, Topeka.  
October 17-22, 1904—American Royal Live-Stock Show and Sales, Kansas City, Mo.  
November 26-December 3, 1904—International Live-Stock Exposition, Chicago, Ill.

### Sciences Taught in the Schools.

I read with much interest and approval in the May 12th issue of the KANSAS FARMER the suggestions of Ex-Governor Geo. W. Glick to the State Text-Book Commission, and when I say that this is certainly a step in the right direction, I think I have voiced the sentiment of the entire rural as well as much of the city patronage to the public schools. This seems to be the panacea to keeping the boys on the farms.

This great want is not only felt by parents for the benefit of their children, but parents themselves feel every day more and more their lack of this knowledge in dealing with their farm operations. Many farmers like myself who are now well along toward middle age, because of their duties to family and to details of their avocation, can not attend an agricultural college, not even the winter short course, and who do not altogether approve of a correspondence course, feel the need of something in these sciences suggested by Mr. Glick: Zoology, botany, entomology, ornithology, and veterinary science. These works should be so complete and exhaustive that they can be studied at home and comprehended without the aid of an instructor or the tedious task of correspondence.

Now, can not the old reliable KANSAS FARMER or some of the faculty of the Agricultural College suggest some work on each of these sciences that we farmers can use in our homes, until something better has been devised? I for one would like to procure the best work that can be had on veterinary science, that is practical for the farmer, regardless of cost. Would the KANSAS FARMER name some work in its next issue? J. F. ENSOR.

### Johnson County.

I agree with Governor Glick and yourself, that many of the facts and principles of zoology, botany and the allied sciences related to agriculture, should be taught in the common schools, not in a technical way, but in an elementary form by which the young pupils may be interested and instructed so that they may gain a knowledge of the simple truths of nature and of agriculture. Too often the country boy and the country girl grow up and finish their common school education, having little knowledge of the soil, the plants, or the animals, the very things in which they are most concerned. Upon their knowledge of these depends, to a great extent, their prosperity and pleasure in life. In several States the objects mentioned are being attained by the introduction of agriculture or nature studies in the common schools. In our neighboring State, Nebraska, agriculture is required to be taught in the common schools. It requires special text-books and new methods of teaching, as compared with those used in the colleges, in order to teach the principles of science to the young student. The text-books must be simple and interesting. When this movement began little or nothing was published for use along this line, but work is being done in several States, usually under the direction of the agricultural college, and some simple text-books have already been published and the means and methods of teaching agriculture in the common schools are being rapidly developed.

In regard to your own needs along this line, doubtless you will not care to go into the technical study of the sciences named. But rather you require some general application of the sciences, such as is made by practical books on different agricultural subjects, such books as are used in the Farmers' Reading Courses. There are a great many books of this nature

published, too many in fact to attempt to give a list of them here. The subject of agriculture is so large that it has been found by writers, impracticable to treat the subject or even one division of the subject in one book. Thus we find a great many books, discussing different phases of crop production, as treating of the soil for different crops, fertilizers, drainage, irrigation, etc. The same is true of the publications on live stock production, and of the horticultural books. For a list of these I refer you to Farmers' Bulletin No. 109. You can secure a copy of this bulletin by writing to A. C. True, director of the Office of Experiment Stations, U. S. Department of Agriculture, Washington, D. C. I name below the list of books recommended by the Association of Agricultural Students of the University of Nebraska, for home reading courses:

Crop Production.—"Fertility of the Land," by Roberts; "The Soil," by King; "Irrigation Farming," by Wilcox.

Live Stock Production.—"Stock-Breeding," by Miles; "Feeds and Feeding," by Henry; "Swine Husbandry," by Coburn.

Horticulture and Floriculture.—"Principles of Plant Culture," by Goff; "Amateur Fruit-Growing," by Green; "Vegetable Gardening," by Green; "Garden Making," by Bailey.

Dairying.—"Milk and Its Products," by Wing; "Chemistry of Dairying," by Snyder.

Animal Diseases.—"Diseases of Horses and Cattle," by McIntosh; "Diseases of Swine," by McIntosh; "Care of Animals," by Mayo.

Many new books have lately been published, some of the popular writers are: Bailey, Shaw, Roberts, Snyder, King, Henry, and Armsby. The following companies are among those which publish rural books: MacMillan Co., New York; Rural Publishing Co., New York; Orange Judd Co., New York or Chicago; D. Appleton & Co., New York; Boston, or Chicago; John Wiley & Sons, New York; Chemical Publishing Co., Easton, Pa.; Philadelphia Publishing Co., Philadelphia, Pa.; Webb Publishing Co., St. Paul, Minn. Many of these books may be secured from the Kansas Farmer Co. I would recommend that you write to the different companies, asking for their catalogue, and in this way you will get the names of the books and their prices. The names are usually suggestive of the character of the book and you will be able to decide largely what books you will require. Some of the good new books are:

"The Book of Corn," by Herbert Merritt, published by Orange Judd Co.; "Farmers' Business Hand Book," by Roberts, published by MacMillan Publishing Co.; "The Chemistry of Plant and Animal Life," by Snyder, published by Chemical Publishing Co.; "Lessons with Plants," by Bailey; published by MacMillan Publishing Co.; "Plant-Breeding," by Bailey, published by MacMillan Publishing Co.; "The Horse," by Mayo, published by MacMillan Publishing Co.; "The Fat of the Land," by Streeter, published by MacMillan Publishing Co.

Much of the best information in agricultural lines may be secured from the bulletins of the State Experiment Stations and the publications of the U. S. Department of Agriculture. The Office of Experiment Stations issues the farmers' bulletins, which are treatises upon various farm crops, cultivation of crops, soils, etc. These are free to every farmer who will apply for them. Many other publications of the U. S. Department of Agriculture may be secured by application. Lists of these are sent out by the Experiment Station every month to those who will ask for these lists, also from time to time that office sends out a list of the bulletins published in the various States. Often copies of these State bulletins can be secured by a citizen of any other State who is interested in the particular subject treated, by writing to the director of that experiment station. By writing to the Division of Publications, U. S. Department of Agriculture, you can receive a list of the documents for sale. Many of these are excellent agricultural treatises.

For men in your position who are past the school age (though never too old to learn) the agricultural newspaper is one of the greatest modern means of securing information on all subjects relating to agriculture, but it is hardly necessary to remind you of this, since you take the "old reliable." A. M. TENEYCK.

### Tame Grass for Land Subject to Overflow.

I have a fifteen-acre field of swampy land, subject to overflow, a very rich, black soil that I want to seed to tame grasses. What kind of seed would you advise, and how much? Do you think it would be best to sow this fall, with wheat for a cover crop, or wait until spring and sow with oats? I rent my ground and by sowing with either wheat or oats, the plowing does not cost me anything. I have a three-acre patch I seeded a year ago, according to your instructions, and it is the finest thing in all this country. It is redbud, timothy and Alsike clover. Got six tons of hay off of it the first season; seeded in the spring.

Labette County. D. H. GLICK.  
I do not know that I can recommend any better combination of grasses for seeding on swampy land than the one you have named. It might be well in making the new seeding, especially if you desire to pasture the land, to include a little English blue-grass and less timothy, say 6 pounds of redbud, 6 pounds of English blue-grass, 4 pounds of timothy and 2 pounds of Alsike clover per acre, first-grade seed. Spring seeding will, as a rule, be preferable to fall seeding, because clover is not safely sown in the fall. The other grasses may be sown in the fall and if the seeding is made with wheat, the clover may be seeded in the wheat early in the spring, taking advantage of the freezing and thawing and the rains to cover the seed. If you use a nurse-crop, wheat is preferable to oats, because the harvest of wheat comes earlier and wheat does not shade the ground so much and is not so apt to smother the young plants, as is oats. It will be best to make a thin seeding of wheat. Sow early in September.

If oats are used as a nurse-crop, sow early in the spring, preferably not more than a bushel or so per acre. Be sure to prepare a good seed-bed, sow the grass immediately after seeding the oats, and harrow once to cover the seed. On such land as you mention, a nurse-crop is not apt to have an injurious effect because the soil will be supplied with sufficient moisture throughout the season. In case the weather turns very dry before the nurse-crop is harvested, in order to save the seeding, it may be advisable to cut the oats for hay. In cutting the nurse-crop, leave the stubble high so as to still offer some protection to the young grass-plants. As a rule, it is safer to seed grasses and clover without a nurse-crop; but on the kind of land and under the conditions which you state, you should be able to secure a good catch of the grasses named, in the average season, by seeding with a nurse-crop in the manner suggested above.

I am glad that you had good success in following out my suggestions last spring. A. M. TENEYCK.

### Will Sow Alfalfa in Illinois.

I have a patch of ground which I wish to sow in alfalfa. Will you please tell me through the KANSAS FARMER when to sow it and how much seed to sow per acre? The soil is a rich, black loam. J. N. PETERS.

St. Joseph, Ills.  
The best time to seed alfalfa is early in the spring, about the time you sow oats, but it will do to seed it in a well prepared seed-bed, if the soil remains fairly moist, up to the first part of June. In Kansas, fall seeding is practiced to a large extent. It is best to seed early in the fall, in this climate not later than the first of September. The amount of seed to sow varies with the season and the condition of the seed-bed. It is usual to sow about twenty pounds of good seed per acre, but some successful growers do



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not sow more than ten or twelve pounds of seed per acre. With favorable weather conditions and a well prepared seed-bed, seeding ten or twelve pounds of good seed per acre will produce a good stand.

The seed-bed for alfalfa should be prepared several weeks or months previous to the planting of the seed. The soil should not be too loose and mellow at the time the seed is sown. It is a good plan to plow deep, but the plow should not precede the seeding too closely. The surface two or three inches should be mellow, but the subsurface or bottom part of the furrow slice should be rather firm (not hard), in order to get the proper condition for the germination of the seed and the growth of the young plants. Alfalfa is best seeded without a nurse crop on land which is free from weeds. It will be necessary the first season to mow the weeds a few times to keep them from smothering the young plants. Do not cut too low, since too close and too frequent cutting in the early stages of growth of the alfalfa is apt to weaken and destroy the young plants. Like clovers and grasses, during its young growth, alfalfa needs all the top growth it can make in order to establish a deep root growth. After the plants are once established, frequent and close cutting does no harm, in fact alfalfa seems to thrive better when cut frequently.

A. M. TENEYCK.

**Soy-Beans as Food.**

I have been referred to you for information concerning soy- or soja-beans. Where can I get them, price per bushel, etc? We are raising them for the bean instead of the fodder, and would like to know what kind is considered the most edible. Also, can you tell me of any way or ways in which they are prepared for food? I know that the Chinese use them, but have not known of their use by people of this continent.

MRS. LANETTE M. FOSTER.

Hacienda de Tula, Mexico.

At this station the Early Yellow soy-bean has proved to be one of the best producers of beans. In the trial at this station last season, other good varieties were the Ita San, Green, Green Samarow, Small Yellow, Flat Black, and Early Brown. We made no test last season of any variety of white beans, but I note that a variety called "Early White," is recommended in some States, particularly in the North, as being an excellent seed-producing variety. Possibly for table use, the white beans would be preferred, but as to what varieties are most edible, I can give no information and I find no published data touching this point, other than chemical analyses of different varieties of soy-beans, given in Farmers' Bulletin No. 58, U. S. Department of Agriculture, from which it appears that the yellow bean is richer in protein but not quite so rich in fat as the white bean, while the black bean grades lower than the others both in protein and fat.

You can secure seed of the different varieties named from the Evans Seed Co., West Branch, Mich., and from the Hammond Seed Co., Bay City, Mich. You can secure beans of the Early Yellow variety from almost any Western seedsmen. Doubtless for growing in your climate Southern-grown seed may be preferable to Northern-grown. For varieties adapted for growing in the South, I refer you to the Alabama Experiment Station, Auburn, Ala. Usually soy-beans as sold by seed companies, retail at from \$2 to \$3 per bushel of sixty pounds.

"The soy-bean has been used as food for man in China and Japan from earliest times." But as yet little use seems to have been made of the bean for that purpose in this country, it is used rather as a stock feed and forage crop. In China and Japan this bean is eaten to some extent, boiled, like other beans, but usually it is made into a variety of products, all of which have a high percentage of protein. These products are eaten in connection with rice, the staple food of those countries, and help to make a well balanced dietary. At least five preparations are commonly made in

Japan from soy-beans; these are: natto, tofu, miso, yuba and shoyu. I quote from Farmers' bulletin No. 121, of the United States Department of Agriculture, as follows:

"One of the most important of these preparations is shoyu, and it is the only one that has been introduced to any extent into other countries, where it is known as 'soy sauce.' To make it, a mixture of the cooked beans with roasted wheat flour and salt is fermented for several years in casks with a special ferment. The result is a thick, brown liquid having a pungent and agreeable taste.

"There are also several varieties of bean cheese or similar products, made from this legume, which are very important foods. These are, natto, miso and tofu. Natto is made from soy beans that have been boiled for several hours until they are soft, small portions of the still hot mass being then wrapped securely in bundles of straw and placed in a heated, tightly closed cellar for twenty-four hours. Bacteria, probably from the air or from the straw, work in the mass, producing an agreeable change in the taste.

"For tofu, the soy-bean, after soaking and crushing, is boiled in considerable water and filtered through cloth. To the resulting milky fluid 2 per cent of concentrated sea brine is added, which, probably by virtue of the calcium and magnesium salts present, precipitates the plant casine, which is then pressed into little snow-white tablets. It is made fresh every day. Tofu is sometimes cooked in peanut oil before it is eaten. In natto and miso the action of minute organisms plays an important part. In tofu there is no such action."

"It is stated on good authority that these foods actually take the place of meats and other nitrogenous foods in the Japanese dietary." There is not so much need to use soy-beans as food in this country, as there is in Japan and China, since we have other common foods rich in protein which are more palatable than the soy-beans. Still it is well worth while to experiment in the use of this bean for food on account of its high nutritive value.

A. M. TENEYCK.

**Clover or Cow-peas to Plow Under.**

Do you think that crimson or some other variety of clover would make a crop to plow under next summer if sown in the corn this year; would it pay as a soil improver and add to the humus; if so, at what time would you advise me to sow it?

FOSTER HEINLY.

Leavenworth County.

At this Station the crimson clover has proved to be of very little value either as a forage or green manuring crop. This is an annual clover and will not usually live through the winter in this climate. In a favorable season you would likely be able to get a catch of common red clover by seeding in the corn at the last cultivation. This would not make much growth, however, the present season, and it would not seem to me advisable to plow it under as green manure next season, but rather leave the land in clover one or two seasons, plowing it up two years after seeding. The above plan of getting a catch of clover would not be the best one to practice. One of the surest methods would be to sow early in the spring on a clean piece of land without a nurse crop, using the mower two or three times during the season to keep down the weeds, and in a favorable season probably a fair crop of hay could be cut late in the summer. In your part of the State, doubtless clover will do well when seeded with a nurse crop. The common method is to seed early in the spring, with a light seeding of oats. If the season is not too dry the clover will make a good start and will make good pasture in the fall. I think this plan far preferable to the method of seeding in corn.

As a crop to sow in corn to improve the soil and add humus, I would recommend the cow-pea. This is an annual legume which grows quickly, producing a large amount of forage which may be pastured off or plowed under

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as green manure, or left as a cover crop during the winter to collect the snow, and plowed down in the spring. The cow-pea not only adds humus to the soil, but like clover it takes nitrogen from the air and increases the nitrogen supply of the soil. One of the best means of sowing the peas is to use the one-horse grain drill, going through the corn at the last cultivation. Sow the peas at the rate of about one bushel per acre. If the season is dry the peas will not make much start, but in a favorably moist season you may expect to get a good growth.

A. M. TENEYCK.

**Baling Alfalfa from the Field.**

If alfalfa is sufficiently cured after cutting, to safely stack, would it be, in your opinion, fit for baling? This would save the expense of stacking, and is what I would prefer to do if advisable.

J. C. MOHLER.

Shawnee County.

In the experiments made at this Station last summer, in baling alfalfa from the field, we were able to secure a good quality of hay from alfalfa which was baled when it was well cured and fit to stack, but hay baled before it was fully cured spoiled badly. The observation was made that the hay which was baled from the field retained more leaves than was usual with alfalfa baled from the stack. In favorable weather it is my opinion that the cured alfalfa may be safely baled from the field and there is no doubt, if the crop can be saved and handled in this way, that the baled hay can be put on the market at a less cost than when it is baled from the stack. Care must be taken, however, not to bale when the hay is damp, and after baling the hay must be stored under shelter and not allowed to become wet. On the other hand, the alfalfa should not be allowed to become too dry so that it loses its leaves and becomes brittle. By putting the hay in the cock in the wilted stage and allowing it to cure in this way, it will remain in good condition for baling for a considerable period. The results of the trial referred to above are given in bulletin No. 123 which is now in press.

A. M. TENEYCK.

**Grass for Wet Places.**

Will you please advise me through the KANSAS FARMER what kind of grass or clover is best to sow in wet places in the field where alfalfa will not stand?

T. S. SMITH.

Wabaunsee County.

For the low, wet places on the bottom-land where the alfalfa will not start, a combination of redbtop and timothy or redbtop and English blue-grass with Alsike clover should grow well. Sow at the rate of about eight pounds of redbtop, four pounds of timothy, and two or three pounds of Alsike clover per acre, or if the English blue-grass is substituted in place of the timothy, use about ten pounds of the seed of this grass. If the spots are not too large it will perhaps not be necessary to plow the land, but prepare a good seed-bed by thorough disking and harrowing. It would have been better to have seeded these grasses earlier in the spring, but with the favorably moist season which we are having you are likely to get a good stand by sowing at this date or even as late as the middle of June, if the soil and weather conditions remain favorable.

If you do not sow early this spring, the grasses may be sown early in September but it will not be advisable to sow the clover until the following spring. It is quite essential that the clover be sown with the grasses. Alsike clover is especially adapted for low, moist land and will act as a host plant or feeder to the other grasses, and it is also a valuable crop in itself.

A. M. TENEYCK.

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## Horticulture

Forestry, as Applied to the Development of Kansas.

GEO. W. TINCHER, BEFORE THE KANSAS STATE HORTICULTURAL SOCIETY AT DODGE CITY, MAY 12, 1904.

In 1877, on an August day, I saw a covered wagon containing two men and one woman drive up Kansas Avenue, in the city of Topeka, and stop at the corner of Eighth Street. They were poorly dressed, and in general a sad and forlorn looking trio. Upon investigation it was found that they had spent two years in Ness County, and from the pitiful story they told to the listeners, one would suppose that Ness County could not support a population to exceed 100 people. This was the first time I had ever heard of Ness County, and by consulting a State map I immediately informed myself of its exact location.

Since that August day, wonderful changes have taken place in that part of the State. A notable instance is, that in 1903, this same Ness County produced almost 2,000,000 bushels of marketable wheat. A second illustration: In the early eighties a craze went over a portion of the State for the establishment of creamery companies. This was especially true in the west-central part of the State. Many townships voted bonds, and men of means subscribed their notes and money, for the establishment of creamery companies. After a short period most of them went out of business—all because the promoters had failed to inquire as to the milk-supply for their respective districts. To-day this same territory is one of the best milk-producing portions of the State, and the largest creamery doing business under a single roof in the United States is located at the capital city of Kansas.

The fruit- and forest-tree grower of thirty years ago did not meet with success, because he did not understand the climatic and other conditions with which he was not familiar. To-day we have some of the largest fruit-growers in the country, and by far the most successful forest-tree growers to be found in the United States.

### THE DEVELOPMENT OF KANSAS, AND WHY IT WILL GROW.

Beginning with the early eighties, Kansas experienced her first real boom, when the whole country seemed bent on crazy values of property. Land that was worth but a few dollars per acre readily sold for \$15 to \$20; while town lots that are now bringing but a few dollars on the market, sold for hundreds—and in some cases \$1,000 each. This was wrong, and ultimately caused a great injustice to the State. Much of this land was sold by a small payment being made at the time of the purchase and notes given for the balance. It was not long until these notes became due, the owner was unable to pay—owing to the decline of values in land, and the Eastern mortgage-holder, after many years of waiting, was compelled to take the property. This caused discontent, because of the fact that the property was finally sold for much less than the face value of the mortgage, the result being, the said Easterner—to use a common phrase—"knocked" on Kansas at every opportunity. But the people who were more cautious, and remained long enough to learn the true condition of the locality in which they lived, were the gainers by a very large per cent.

One of the secrets of success in the West, from my observation, is to understand the locality and conditions where one lives. This is especially noticeable by a casual observer from the innumerable evidences of prosperity that prevails over this entire mortgage-ridden territory of less than twenty years ago.

The West is on the eve of its greatest substantial growth. Land that will sell to-day for from \$10 to \$15 per acre will in all probability bring twice that figure by 1920. And as to why the West and Kansas will grow can

best be answered by referring to the overcrowded conditions of the East. The New England farmer who has a small place, with several growing boys, will find it utterly impossible to keep those boys, as they grow to manhood, farming the little, steep hillsides, and removing the stones from the cultivated fields in order to produce a crop. These and other boys are sure to come to the broad, fertile fields of the West. There is nothing else for them to do. Land is high in their vicinity, opportunities are few, and they will inherit the same spirit that the early settlers of Kansas did when they came West prior to and after the close of the Civil War.

Again, the position of the United States as to the far East will call for the surplus of our cereals and meats. The war in the East is a notable illustration of this fact. Not many months ago a train-load of bacon left the city of Chicago for Seattle, to be shipped by steamer to Japan. The same steamer probably carried thousands of pounds of food-stuffs to the Russian army, to be delivered at their Pacific port. I do not believe there was ever a time in the history of the State when we had so good an opportunity for a permanent and solid development as we have to-day. As an illustration of this point, I will cite the great wheat-crop of 1903. The Eastern bankers had an abundance of money which they were anxious to send West to assist in handling this crop; but to their astonishment the local bankers of Kansas supplied all the necessary means.

### INABILITY OF OUR LOCAL FORESTS TO SUPPLY THE DEMAND.

To any one who has studied the forest conditions of Kansas, with its meager supply as compared with the total area of the State, there can be but one conclusion; namely, practically all of the lumber for building purposes must be shipped from adjoining States, and a large portion of the post-and-pole-stock to be used by the farmer must come from the same source. It is true that certain localities in the eastern part of the State, along wooded streams, have an abundance of native timber for local use on the farm, in the way of posts, poles, and fuel; however, only a small portion of the State is so favorably situated. Many of our most productive counties are entirely treeless, and all the timber and fuel must be shipped from the outside. We receive posts from Arkansas, Missouri, Minnesota, and Wisconsin. This is a great drain on the people, because of the excessive freight-rate, which is added to the net cost of such stock. Many of the older portions of the State are now using posts and poles that have been grown in the immediate neighborhood. This is a step in the right direction, and one which will have to be followed out, because the demand for all such stock in other parts of the country is becoming great, and the prices will thereby be advanced. I can see only one solution of the timber problem so far as posts, poles, and fuel are concerned, and that is to grow it on our own soil, and in the locality where there will be greatest demand.

### THE NECESSITY FOR ARTIFICIAL FORESTS.

There can be no doubt about the necessity of establishing artificial forests in Kansas, because of the meager supply of our native timber. Any experienced farmer who has grown timber of any sort to a sufficient size to be used for posts or poles knows that it is much cheaper and more satisfactory for him to go into a grove and cut the stick desired, than to go to a lumber-yard and pay cash for the same material.

From fifteen to twenty years ago many artificial forests were established in Kansas. The catalpa is the tree that has been planted more than any other. Some of these forests have not proven a profitable investment, because of the inexperience of those who handled them. The others have paid the owners a larger rent for the ground than they could have secured from any other crop. The Yaggy forest, located near Hutchinson, consists of about 500 acres of catalpas. The

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first planting was done in 1890. Posts have been cut from this forest for the last four years, and the owners do not hesitate to say that it is one of the most profitable crops that ever grew. This forest is located in a treeless district of the State, where there is a ready demand for any supply that may be grown. Many other tree-growers can testify to the same fact that applies to the Yaggy forest.

Every landowner should have a certain portion of his land devoted to forest growth. It would be wise and profitable to reduce the size of the orchard, and plant a timber-belt on the south and west sides of said orchard. In all probability the owner would procure more fruit from a smaller number of trees that were situated within this sheltered belt, to say nothing of the income received from the forest-trees.

An additional reason why artificial forests should be established is, that we believe that during the next twenty years Kansas will enjoy her greatest growth. This growth will call for an increased supply of young timber, to say nothing of constant renewals that must be made. All of the present pastures in Kansas will have to be renewed during this time, and the increased acreage of corn, wheat, alfalfa, and other crops will cause the subdividing of many of the large fields of the present day. The demand for small country telephone-poles will be much greater than any supply that will be grown. The telephone is one of the fixtures that has come to stay. Every resident of the rural districts will not content himself to be without local telephone connection. The dairy interests alone in Central and Western Kansas will call for millions of posts and poles for fencing and shelter. During this twenty years the present prices will be increased all the way from 25 to 50 per cent, and it seems to me the height of folly to pay this additional cost when we can grow the same material on our own ground and keep the money at home.

### LOCATION, AND THE BEST SPECIES TO PLANT.

The location of a timber-plantation is an essential feature. It should be located where the greatest demand will be when the timber is grown. It would be unwise for a man to plant a timber forest in the sparsely settled region of Arkansas, or in the heavily wooded districts of Wisconsin; but the broad, fertile prairies of Kansas, where the wheat- and corn-belt come together, is an ideal location in which to grow timber, for the reason that long before this timber is large enough to be used, there will be a demand for it. Farmers will view such a grove with admiration, and the remark will be made many times, that it will not be long until these trees will be large enough for posts. Another reason why this would be a good location is because when the product is

put on the market, the matter of freight will be almost entirely obliterated, as the posts and poles can be shipped short distances, over one route, at a reasonable rate.

The bottom-land will grow trees to a useable size in a shorter period than prairie soil. However, we must take into consideration the difference in the price of bottom-land and the prairie land; we must also consider that many counties of Kansas have no bottom-land, and if the trees are grown at all, it must be upon high, open prairie.

The Bureau of Forestry, at Washington, D. C., has issued Bulletin No. 37, entitled "The Hardy Catalpa," written by William L. Hall. This bulletin gives an immense amount of information, and deals entirely with catalpa-plantations in Kansas. It should be in the hands of every land-owner in the State.

For the eastern half of Kansas I would place catalpa (speciosa) in preference to all other timber-trees, because this tree has been more thoroughly tested than any other sort. It has more good qualities and less objectionable ones than any tree I know of. It will produce first-class posts in from ten to twelve years, and poles a few years later; while it is almost indestructible in contact with the soil; it is easily worked, will hold staples perfectly, and is a tough, strong piece of timber.

For the central and west part of the State I believe the Russian mulberry, Osage orange, black and honey locust will prove to be quite a factor in the post problem of the future. These trees will grow where it is almost impossible for other sorts to live. They will grow to a suitable size for posts in a dozen years. The mulberry and Osage orange, in order to produce an upright growth, must be pruned annually until a stem is of sufficient length to make a post. Much of the sand land of Southwestern Kansas seems to be admirably suited for the growth of these trees. The black locust is one of the best trees to plant in any part of the State, if it was not for the attack of the borer. Some localities seem to be free from this injury; and this tree should be planted in large numbers.

Mr. Royal Kellogg, of the Bureau of Forestry, has prepared a bulletin that will soon be issued, on the trees adapted for that part of Kansas and Nebraska west of the 100th principal meridian. This publication will be especially valuable for all residents in the western part of the country. Mr. Kellogg has made a thorough study of the conditions, and understands full well what will succeed and what will not grow. The red cedar will thrive to the Colorado line, and can be used for ornament, and a windbreak; but for post and pole purposes, it should be at least from twenty-five to thirty years old, on account of the large proportion of sap as compared with heart-

(Continued on page 507.)

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November 1, 1904—W. B. VanHorn & Son, Poland-Chinas, at Overbrook, Kans.

December 6 and 7, 1904—Chas. W. Armour, Kansas City, and Jas. A. Funkhauser, Plattsburg, Mo., Herefords at Kansas City.

February 1, 2, 3, 4, 1905—Percherons, Shorthorns, Poland-Chinas, Wichita, Kans.; J. C. Robison, Towanda, Kans., Manager.

February 16 and 17, 1905—Chas. M. Johnston, Manager, Caldwell, Kans., Combination sale of registered stock.

February 22 and 23, 1905—Shorthorns and Poland-Chinas, N. F. Shaw, Manager, Plainville, Kans.

**Hog-Cholera.**

The Oklahoma Agricultural College has just issued the following valuable brief discussion of this disease:

Hog-cholera and swine-plague are the principal diseases of hogs that appear in the form of an epidemic and that are considered very infectious and contagious. Both diseases generally appear in any given outbreak but the general name of hog-cholera is applied to such outbreaks as well as to several other diseases that appear among hogs. It has been generally recognized that hog-cholera is due to bacterium commonly designated as hog-cholera bacillus. This germ is present to a great extent in the alimentary canal and is passed from the body of the sick hog in large numbers and in this way infects lots and pens where the sick hogs are. Such infection may be easily taken into the body of the well animal with food and water and in this way soon infect the entire lot.

When the disease appears among the hogs of a given locality, as on a certain farm, it is evident that the pens are infected. This infection may be carried to the pens in a number of ways but generally by means of some sick animal or on the shoes of persons who have been in pens where sick animals are. In any case the first thing to do is to move the well hogs into fresh lots and where there will be no communication with the pens where the sick ones are kept. If others take sick the well ones should be moved again as it will do little good to move the sick ones and leave the others to take the disease in the infected pen. Washings from infected lots when carried into streams will spread the disease to farms located further down the stream and hog-raisers should be especially careful of their water supply when the disease is in their locality. They should not allow hogs to take water from a stream where the disease is known to be on farms above them.

A great deal of work has been done to find some cure or preventive for hog-cholera. Certain lines of work seem to indicate that a system of vaccination may be perfected that will act in a similar manner on hogs as a means of preventing hog-cholera, as vaccination does on cattle to prevent blackleg. If such a method is found to be reliable the disease will be practically under control. The feeding and care that hogs receive will do much to prevent such diseases as unthrifty herds are the ones most likely to contract any disease. Plenty of green feed such as cane, alfalfa, etc., with a good supply of fresh, clean water during the summer months will do a great deal towards keeping hogs in the best possible condition.

The Oklahoma Experiment Station at Stillwater has devoted considerable time to the study of hog-cholera and the transmission of the disease by means of the hog-cholera bacillus. This work has been principally along the lines of producing immunity in the small experimental animals and studying the effect of the germ in the hog. To facilitate work of this character it is very desirable to know of the existence of this disease and any one having diseases of this nature among his hogs will aid the station in this work by communicating the fact and giving

a thorough description of the symptoms and course of the disease.

**Ponds for Stock Water.**

In December, 1902, the Oklahoma Agricultural Experiment Station published the following description of a pond with a capacity of about one million gallons for storing surface water for stock purposes on the station farm: "The pond is on a hill and gets its water from the sod land above. Water is piped to all of the feed-lots, and flows by gravity to the second floor of the barn. As it runs from the faucet, it is as clear as the average well water and it tastes good. The cost of building the pond and of piping the water for about one-third of a mile was about four hundred dollars. Barring unusual accidents it should cost nothing for repairs and it doesn't cost a cent to operate. It is possible that in time the pipes may become clogged with sediment, the fall being so slight that the water does not go through the pipes with sufficient force to keep them clean."

The station reports that this pond has now been in use two years and continues supplying all of the water for every purpose, except drinking water for the men, on the farm where about one hundred head of cattle, one hundred hogs, and ten head of horses are kept. During the six months ended May 1, 1904, the rainfall was but three and one-twelfth inches, yet the pond continued to furnish all of the water required and there was still a good supply on hand when good rains came. This is about as severe a test of the capacity of the system as may be expected soon to occur again.

The pond is fenced and precautions are taken to prevent the contamination of the area which drains into the pond. It would be better if the drainage all came from sod land which is cut over for hay and in laying out new farms, this should be taken into account. The dam is now covered with a heavy growth of Bermuda grass which effectually prevents washing and willows have been planted at the high-water level to protect the inside of the bank.

**Sweepstakes Steers.**

First prize in class and grand sweepstakes of the International carlot show was the record made by W. F. Herrin, Buffalo, Ill., with his grade yearling Herefords. Such a thing falls seldom to one man. It is the event of a lifetime to have fed cattle in such a manner that they have gone into carlot classes at the International Live-Stock Exposition and carried away the first prize in class and purple ribbon over all breeds and classes.

These steers were bred, raised, and fed by Mr. Herrin. They weighed to the packer at 1,099 pounds, selling at \$3.35 per hundredweight, which was the top of the show. In the dressing out percentage these cattle ranked fifth with 63.7 per cent. In breeding they were classed as Herefords, being the calves of a Hereford bull on Shorthorn, one-half Hereford and three-quarters Hereford cows. To all intents and purposes these steers were Whitefaces, since what little Shorthorn blood was behind them was not in evidence.

When sold here at the International these steers were between 18 and 20 months old. At the beginning of the feeding period of twelve months they weighed somewhere between 300 and 400 pounds. Mr. Herrin is unable to state an exact average on the lot at the beginning of the feeding period.

When these yearlings were taken from their dams last November they were on the average a little over 5 months old. They were started off lightly on a small portion of corn and oats. This ration was gradually increased until they were consuming about all of the feed that they could handle.

Last spring when these cattle were turned out to pasture the corn and oats ration was continued. They were kept in a thrifty, growing condition all of the season, and in the meantime were laying on the flesh that was eventually to put them into that condition whereby they were to enter the

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**The Lawrence-Williams Co., Cleveland, O.**

**Home Health Insurance**

To insure the household against disease, use **DIPOLENE**, the disinfectant that does double duty—kills disease germs and purifies. For softening water, mopping floors, sinks, drains, toilets; it renders everything wholesome, sanitary, healthful. Dipolene is handy in a hundred ways in every-day household work. Saves time—labor. A woman's friend, a foe to filth.

on the farm is a money-saver. A preventive and cure for diseases of sheep, cattle, hogs, etc. The famous one-minute sheep-dip every farmer and stockman should know about. None so effective, so economical. Booklet, "Dipping for Dollars" tells the whole story. Free on request.

**Marshall Oil Co.**  
Box 14  
Marshalltown, Ia.

**Spavin and Ring-bone**

Once hard to cure—easy now. A 45-minute treatment does it. No other method so easy, quick and painless. No other method sure.

**Fleming's Spavin and Ringbone Paste**

cures even the very worst cases—none too old or bad. Money back if it ever fails. Lots of information if you write. Book about Spavin, Ringbone, Curb, Splint, Bog Spavin and other horse troubles sent free.

**FLEMING BROS., Chemists.**  
212 Union Stock Yards, Chicago, Ill.

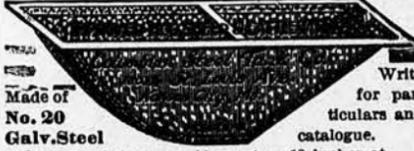
**KARSOLENE DIP**



The most efficient remedy known for Scab, Mange, Ticks, Lice, Hog Cholera, Galls, Sores or Wounds, or any of the many disorders to which hogs and other live stock are subject. A carbolic dip, with liquid sulphur added. A perfect disinfectant. Results guaranteed or money **FREE** SAMPLE for the asking, refunded. **FREE** enough to make 5 gals. of Dip. Write for catalogue, prices and full directions. Address

**STOCKMAN'S MERCANTILE COMPANY,**  
Dept. 16,  
KANSAS CITY, MO.

**Improved Hog, Sheep and Cattle Dipping Tank**



Write for particulars and catalogue.

Made of No. 20 Galv. Steel

10 feet long, 20 inches wide at top, 12 inches at bottom, 4 feet deep ..... \$9.00

8 feet long, 20 inches wide at top, 12 inches at bottom, 3 feet deep ..... 7.00

Bath tubs, galvanized, each ..... 6.50

**Columbian Steel Tank Co., Station A, Kansas City, Mo.**  
Manufacturers of all kinds of Steel Tanks.



sire to part with him they can take twice the cost of himself and dam in cash any day.

The premium list for the Golden Anniversary State Fair of Iowa, is received. The fiftieth annual fair of Iowa will be held at Des Moines, August 19 to 27, and will be a notable one not only because it celebrates its golden anniversary, but because it will be the occasion of the dedication of the new agricultural, horticultural, and dairy building, which is just completed and which measures 300 by 100 feet. In the premium list for cattle, six prizes are allowed to all the breeds of beef cattle, three to the breeds of horses, hogs, and sheep, and two to the breeds of poultry. Secretary J. C. Simpson, Des Moines, Iowa, will furnish copies on receipt of two-cent stamp.

There is an immense number of scrub cattle in the country, but we are glad to note that their number is gradually decreasing. The best and quickest way to get rid of them is to use good bulls. A good bull is half the herd. A poor one is all of it. It is better to go out of the business than to use a poor bull. When you need a Shorthorn bull look in our advertising columns and you will find the best herds in the country represented. The Sunflower Herd belonging to Andrew Pringle, Eskridge, Kans., is Scotch and Scotch-topped, and is so large that one can always find a number to select from. Mr. Pringle has never had a poor bull on his place for sale as a breeder.

About three years ago Mr. Garret Hurst, Peck, Kans., sold an Aberdeen-Angus bull into Oklahoma. This bull has made such a record in his new home that Mr. Hurst has a steady market for his surplus animals, and during the past winter he has sold six herd-bulls and a number of females in the same neighborhood. His herd is at present doing well as they would be expected to do in the midst of one of the best alfalfa countries on earth. Mr. Hurst has about a half-dozen good Angus bulls that are herd-headers and range from 6 to 13 months old that are for sale. His card is on page 599 and a letter to him will bring particulars about these bulls and also some cows and heifers that he can sell.

With the beginning of the year the great John Deere Plow Company purchased 8,000 tubular separators and distributed them among its different houses. Two thousand of them were assigned to the Kansas City house for sale, and it seemed a big problem to dispose of that many in this territory in the course of one year. They had the good judgment, however, to secure a graduate of the Kansas Agricultural College to handle this end of the business, and the results are that on May 10, a total of 1,500 of the 2,000 had already been disposed of, forty-two of which were sold that day. Prof. E. W. Curtis, with the experience gained at the Agricultural College, thinks that he will have a showing of at least 400 machines disposed of during the month of May. When you want a man that knows how, get an Agricultural College graduate.

Mr. F. H. Barrington, of Spring Creek, Kans., inserts an advertisement in this week's Kansas Farmer of his Poland-China hogs. His foundation stock was secured in five Kansas counties and two other States. He has good families in his herd and is the owner of a granddaughter of Victor Chief 70255, bred by Ed. Klever. He also has sows that are close to G. H. Sanders, who won sweepstakes at the Columbian Exposition. Also daughters of Tecumseh Chief, Look Me Over 19417, Perfection, and Black U. S. His herd-boar is a grandson of Klever's Model, and is named Kid Klever (33079). Mr. Barrington says this boar is the finest one he ever owned, being exceptionally good in length, loin, chest, head, and ear, markings and color. He has a number of pigs of his get for sale and can furnish pairs not related. He also has a few yearling boars for sale. See his card on page 595 and write him.

Last week we had the pleasure of seeing the best Poland-China boar of his age that we ever saw in Kansas, and we found him accompanied by three others that would be prize-winners if shown, and they were surrounded by a family of sows of the bluest of blue blood. The boar referred to has his home on Clear Creek Farm at Wilder, Kans. He was sired by Claud Sanders 3d 75042 out of Kansas Style 4th 71659. He is 2 years old, weighs 800 pounds and is as active as a colt. After a study of his points we are obliged to say that we could not find fault with him and we regard him as a remarkable animal in every way. If fitted for the show-ring, he would easily weigh 1,000 pounds or better, and he is possessed of the points most desired by Western breeders. His bone and feet are extra good, and we have never seen a better back or pair of hams. His name is Hanna's Style 30273, and he is ably assisted by Tecumseh Skylight 29337 by Skylight Perfection 27161, bred by T. R. Wilson, Morning Sun, Iowa. His dam was Graceful Tecumseh (59161) bred by Day of North Bend, Neb. Another herd-boar in this herd is Sherman's Corrector 30760, sired by the great Corrector 26466, and out of Star Faced Beauty (67769), bred by M. M. Anderson, Lathrop, Mo. Another king of his kind is Ideal Tecumseh 32185, by Curtis Chief 24670, who made such a reputation for Will Lambing's herd. His dam is Ideal's Choice 70202, bred by Dietrich & Spaulding. With these choice herd-boars, and sows of Ideal Sunshine, Missouri's Black Chief, Perfection, Wilkes, and Hadley Junior blood, Mr. E. P. Sherman, the owner, has gotten together a herd of about 150 Poland-Chinas that it will be difficult to equal for quality. He has about 100 pigs of spring farrow, some of which he will offer for sale at the proper time. Just now he has some very choice young boars that are bargains and that any breeder could afford to buy at the price asked and keep for future use. One of these is Queen's Commander by Linn's Commander, he by Goode's Perfection. His dam is Missouri Chief Sunshine. He is a boar of quality. Another one is Wilkes Imperial by Imperial Chief 3d 28798, out of All U. S. (70197), by Nox All Wilkes. This boar has the fanciest head and ears we have seen in many a day. In the same pen is a September pig by the herd-boar, Tecumseh

Skylight, out of Perfection G. B. Sensation (71991). One of the best in this pen is Colonel by the herd-boar, Sherman's Corrector out of Chief's Gold Bar S. (72805). In another pen is a herd-boar named Sherman's Black Chief 32495, sired by Black Chief Perfection 23527, bred by Joe Young, Richards, Mo. His dam is Star's Perfection 2d (70588), bred by W. S. Hanna, Pomona, Kans. These five boars are worth going after. Mr. Sherman's advertising card is on page 598 and we shall have more to say about his herd in these columns in the near future.

**The American Royal.**

The Kansas City Commercial Club, at its regular meeting recently, cordially endorsed the American Royal Live-Stock Show and commended it to the hearty support of the business men of Kansas City. T. J. Wornall, of Liberty, Mo., secretary and treasurer of the show, by invitation, appeared before the club and presented the claims of the institution. Mr. Wornall said the show was supported by the National Associations of the four leading beef-cattle breeds, the Herefords, Shorthorns, Angus and Galloways, and that each of the four associations contributed \$4,000 annually for prizes. The stock company not only furnished the buildings, erected especially for the use of the show, but contributed \$2,000 annually towards the premiums. Last year the contributions of local merchants and packing houses raised the total sum disbursed in premiums to \$25,000. There were 80,000 admissions to last year's show, a large part of the attendance being from outside the city. The show brought to the city more visitors from abroad than any other event last year.

Mr. Wornall said the plans for this year's show contemplated a more elaborate exhibition of pure-bred breeding stock than had ever before been held in the city. He said the breeding associations had made the usual amounts for premiums, notwithstanding the fact they had contributed heavily toward the added premiums at the World's Fair live-stock show. He said \$5,000 additional to what the associations and the stockyards company had contributed would be needed to make up the desired fund for prizes. A large part of this sum would go to the car-lot exhibit of fat and feeding cattle. He said that the largest exhibit of range-bred cattle ever held in this country was expected at the American Royal this year.

Mr. Wornall is making a canvas of the business firms of the city for contributions toward the prize list of the show and is meeting with much encouragement. The merchants are taking a lively interest in the show because it will bring a large crowd of the best class of country visitors to the city during the week of October 17-22, which is the same week as the horse show in Convention Hall. A large exhibit of draft and coach horses will be a feature of the Royal. World's Fair visitors will be granted stop-overs at Kansas City on World's Fair tickets in order to be able to visit the show. This is expected to make the attendance this year larger than ever before. The fact that the range-cattle exhibit at the World's Fair occurs shortly after the American Royal is expected to add materially to the number of range-bred cattle exhibited here this year. It will give the range men a good opportunity to stop off here with their cattle, rest them, and put them in the pink of condition for the St. Louis show.

JOHN M. HAZELTON.

**Interesting to Wool-Growers.**

The statement is frequently made that sheep are increasing in Kansas. As our people go out of the dog business there is likely to be an acceleration of the sheep business. The profits of sheep depend very much upon the price obtained for wool. There are times of the year, of course, when wool sells better than at others, and if sellers are in position to take advantage of the right time, it means practically the difference between a good, substantial profit or splitting even on the year. For their benefit, we direct attention to the advertisement of Silberman Bros., of 122-128 Michigan Street, Chicago, Ill., which appears in this issue. Silberman Bros. have been in the wool commission business for years, and have built up one of the largest businesses in the country. We need hardly give better evidence of their reliability and their standing with wool-growers than this. They make liberal advances on wool consigned to them, charge a low commission, no storage, and have perfect insurance. They also furnish sacks free to patrons. Their wool market circulars which they will be glad to send to any sheep-owner who is interested enough to write and ask them for it, mentioning the advertisement in the Kansas Farmer, gives reliable and valuable information concerning the wool market. Messrs. Silberman will be glad to correspond with every Kansas Farmer reader who has wool to dispose of. Those who have consigned wool to them have been pleased with the treatment received. Read their advertisement in this issue, and be sure to write them, if you have wool for sale, as they can keep you posted on the market to your advantage.

**Publishers' Paragraphs.**

Laramie, Wyo., August 20, 1899.  
Dear Sir:—I had a horse cut his foot badly on a mower, and applied your Balmoline. He never even got stiff on it, and the fetlock was badly cut. We worked him right along. My faith in Balmoline is unbounded.  
RICHARD KING.

The Dunaway Stock Anchor, manufactured by the C. B. Poke Mfg. Co., Kansas City, Mo., is something new. It is a patented device, made corkscrew shaped, which screws into the top of the hay or grain stack and prevents the top blowing off. It possesses the double merit of being simple and inexpensive. The advertisement will be found in this issue of the Farmer.

The F. C. Austin Manufacturing Company, Chicago, had a representative present at the Good Roads Convention at St. Louis, who made himself popular by the distribution of very handsome pocket match safes. Their business cards, which were also freely distributed there, are

# Silberman

**The Extra Price May Be All the Profit**

It is not so much raising the wool as selling it that tells the story of profit or loss. Very often a little difference in price makes the difference between making money and losing it. Silberman Bros. handle so much wool, and have been so long at it, that they understand the wool situation thoroughly and are constantly posted on matters concerning the market. The large quantity they have for sale attracts the largest buyers and secures the best terms.

The man who controls the big bunch of wool makes his own terms and the man with the little bunch takes what he can get. You see the difference? Silberman Bros. are prepared to bunch the big and little lots together and get the best price for it all. Consignments, little and big, given the most careful attention. Low rates of commission, free sacks to those who consign to us, freight and insurance paid.

**Send For Our Free Wool Circular**

and write for any information desired. We are always glad to pay prompt attention to correspondence concerning wool.

**SILBERMAN BROS., Chicago, Ills.**

## PREVENTS BLACKLEG

Vaccination with BLACKLEGOIDS is the best preventive of Blackleg—simplest, safest, surest. Each BLACKLEGOID (or pill) is a dose, and you can vaccinate in one minute with our Blacklegoid Injector.

Every lot tested on animals, before being marketed, to insure its purity and activity.

For sale by druggists. Literature free—write for it.

**PARKE, DAVIS & CO.**

HOME OFFICE AND LABORATORIES: DETROIT, MICH.  
BRANCHES: NEW YORK, CHICAGO, ST. LOUIS, BOSTON, BALTIMORE, NEW ORLEANS, KANSAS CITY, INDIANAPOLIS, MINNEAPOLIS, MEMPHIS.



## Moore's Hog Remedy

**Original Hog Dip and Feed**

Used on the outside of Hogs—one part to fifty of water, is guaranteed to cure scurvy and measles, kill lice and all other vermin, without injury to the eyes. A small quantity weekly, given in water or any liquid food, will

aid diges  
blood, and  
ful growth.  
dered by lead  
and farmers



remove worms,  
tion, cleanse the  
promote health-  
Used and in-  
ing breeders  
everywhere.

**Prevents Disease at Small Cost**

Get the genuine, at dealers in sealed cans only—never in bulk; or trial gallon, direct, express prepaid, \$2.50. Lower price in quantities.

Book, "Care of Hogs," with illustration of Dipping Tank, FREE. Address,  
**Moore Chemical & Mfg. Company**  
1501-3 Genesee St., Kansas City, Missouri

**Use Car-Sul** Coal Tar Disinfectant Dip \$1.50 per Gallon Express Prepaid

## IT SETS ON THE GROUND



# "ECONOMY PITLESS" WAGON & STOCK SCALE

STEEL FRAME. STEEL JOIST.

Scale shipped complete except the few planks for the flooring. Cost of erecting, \$5.00 to \$6.00. Complete scale above ground, only 9 in. high. We save you cost of 700 to 900 feet of heavy timber and the expensive and troublesome pit, equivalent to \$30.00 to \$50.00. Gilt edge guarantee. Most reliable, durable, will retain its accuracy a life time. No repairs. No decay. Thousands in daily use. Visit our exhibit, World's Fair, Block 20, Agricultural Building. Write for catalogue and prices. Address

**McDONALD BROS. PLEASANT HILL, MO.**

made of aluminum, and contained the pictures of two Indian papooses, which at once attracted attention and aroused the mirth of those who received them. Their line of well-drilling machinery is advertised on page 578.

**Annual Convention Travelers' Protective Association of America, Springfield, Ill., June 5-12.**

The Chicago Great Western Railway will on June 16 to 20 inclusive sell round-trip tickets at one fare plus \$2 to Springfield, Ill. For further information apply to any Great Western Agent or J. P. Elmer, G. P. A., Chicago, Ill.

**Has No Equal—Will not Be Without It.**  
Arkansas, Wis., February 17, 1904.  
Dr. B. J. Kendall Co., Enosburg Falls, Vt. Gentlemen:—Will you please mail me a copy of your "Treatise on the Horse and His Diseases"? I have used Kendall's Spavin Cure, and have found none other equal. I shall never be without it one day. It has saved a valuable colt for me.  
Very truly yours,  
JOHN S. DeMARCE.

**Reduced Rates to Atlantic City via Chicago Great Western Railway.**

On June 1 to 4 inclusive the Chicago Great Western Railway will sell round-trip tickets to Atlantic City at one fare plus \$2 account of annual meeting American Medical Association. Return limit leaving Atlantic City June 13. Stop-over allowed at Philadelphia, Baltimore, and Washington on return trip. For full information apply to any Great Western Agent or J. P. Elmer, G. P. A., Chicago, Ill.

**Has not Lost a Hog Since Using It.**  
Headlee, Ind.  
Dr. Earl S. Sloan, Boston, Mass.  
Dear Sir:—During the fall of 1903 I was losing my hogs with cholera. Mr. A. P. Williams, of Burnetts Creek, recommended your liniment to me as a sure cure for all kinds of hog-cholera. I used it with great success and have not lost a hog with cholera since. I can cheerfully recommend Sloan's Liniment as a sure cure for hog-cholera and will never be without it.  
Yours for the cure,  
MARION SWARTZELL.

## The Young Folks

CONDUCTED BY RUTH COWGILL.

### THE OLD KANSAS VETERAN.

An aged soldier with his haird snow white,  
Sat looking at the night.

A busy, shining angel came with things  
Like chevrons on his wings.

He said, "The evening detail has been  
made—  
Report to your brigade."

The soldier heard the message that was  
sent,  
Then rose and died and went. —Ironquill.

### Over the Border—A Story of the Kansas Pioneers.

X.

(Copyright 1904, by Ruth Cowgill.)

#### CHAPTER XIV.—A PIONEER SCHOOL.

Sarah awoke from the long sleep following this night of exhausting excitement, feeling quite well again, though a pallor and a languor occasioned, perhaps, by mental agitation rather than physical suffering, still clung to her. Her father recovered slowly from the painful effects of the ordeal he had passed through. He was unable to go about with his customary brisk step, but seemed suddenly to have grown many years older. The feebleness of old age seemed suddenly to have befallen him.

Sarah saw this with sorrow, but kept a brave face before him, prophesying, from day to day, a better tomorrow. The weather continued damp and murky after the storm and Sarah was unwilling for him to go out, though she knew as well as he that the stock was suffering under Henry's inexperienced ministrations. The third day, which was Monday, Nathan refused to be kept indoors longer, and taking the cane which Henry had cut for him from an oak that grew nearby, he went out with the boy. Sarah stood at the door with Belle in her arms and watched him sadly on his painful way, until the barn hid him from sight. Then, suddenly she remembered that this was the day upon which she had promised to begin her school-teaching. She hurried about her work, getting the small house in order, and bringing into the kitchen her one chair, and every available box, and setting them in order. Belle was much impressed with all these preparations, and went about from seat to seat, climbing laboriously upon each one, and sitting there a moment before she slid down and tried the next one.

Sarah noticed her at last, when she perched triumphantly upon a high box, talking happily to herself in her baby jargon. Sarah ran to her, and dropping on her knees, put her arms about her and buried her face in the little lap. "Sister's little comfort!" she said, "Sarah's darling baby." The little hands patted her on the head exuberantly. Sarah's face was wet with tears, but her heart was comforted as it often was by the innocent love of "her baby." She heard voices outside and wiping her eyes hastily, opened the door to a troop of children. They were Mrs. White's shabby little youngsters, each with his face carefully washed in the middle and hair smoothly brushed in front. They came in bashfully and sat stiffly down upon the seats provided. In a moment two more arrived, and then another group, until the seats were all filled. Some of the children Sarah had never seen before, and when they gave their names, they were unfamiliar. She asked them where they lived and they told her six miles to the northward. The information that their father had brought them in a wagon borrowed from a neighbor, they volunteered. Sarah was glad that she had undertaken this little work of charity, when she reflected how anxious the parents must be that their children should learn, when they would send them so far, and so many would come. Nevertheless, she had hard work that morning. Some of the children were uncouth and ill-bred, all of them were full of mischief and had been accustomed all summer to abso-

lute unrestraint. But she coaxed them and read to them, gave them lessons according to their differing abilities, and when their restlessness exceeded all bounds, fell back upon a story which she invented as she went along. Noon came very quickly, and with it her father and brother. They were astonished when they saw the room full of children, for Sarah had forgotten to remind them of her school plans. Nathan looked pale and weary and Sarah was alarmed for him. She had prepared a lunch early in the morning in anticipation of her school, and the children had brought theirs. So they all sat down together in the crowded little kitchen, and ate their frugal meals. While they were eating and chattering and there was a great hubbub of noise, the door opened, and Dolman stood there looking on in amazement.

"Come in, Friend Dolman," said Henry, who was enjoying life to the fullest extent.

Nathan looked up with a welcome in his pale face, and Sarah waded through the rows of children, to give him her hand, and offer him a seat, looking hard at Henry for a moment, who took the hint, and arose, offering a seat on the lowly box. Dolman smiled and refused the seat, but accepted the sandwich which Sarah brought him, with a blush because there was only one to offer and it was so small. Nathan explained the presence of the children and Dolman was deeply interested. The children were somewhat awed by the big newcomer, and whispered and giggled together in lower tones.

When the lunch was finished, Sarah said, "Now, children, school is over for to-day. You may all put your things on and go home. Come again tomorrow, and bring all the books you have." Then they trooped out and away over the prairie, skipping around through the mud, yelling and running in the manner of school children the world over.

"I hope thee will persuade my father to rest this afternoon," said Sarah to Dolman.

"Yes, it is evident enough that he needs it—Come," he said, offering his arm to Nathan and speaking in the way that always won obedience to him. Nathan took his arm and went feebly into the other room, for he was more weary than he liked to confess.

Presently, as Sarah was trying to repair the havoc her school had wrought in her kitchen, Dolman came out, looking very grave. Henry was romping with Belle.

"Sarah," he said, going to the door, "Come here, I want to speak with you." She went, looking at him questioningly.

"I have just been talking with your father, trying to persuade him that he can not live here longer. It is really unsafe," he went on quietly, watching Sarah's color go. "He has made bitter enemies among the border ruffians, who have threatened his life, and you know your father well enough, I presume, to realize that nothing can prevent his speaking his mind about this—or any other question—whenever he thinks there is occasion for it. Another such controversy as he got into at Leavenworth will mean death and possibly worse things. He must not be allowed to go there again, and what is more, he must not live here, unprotected as he is. There is no telling when they may swoop down upon you here, nor what they may take it into their heads to do."

Sarah was alarmed, for Dolman was very serious, and she knew he would not frighten her without cause. But he saw that, startled though she undoubtedly was, she was yet mistress of herself.

"You know that I would not frighten you unnecessarily, but," he went on impatiently, "I am utterly unable to persuade your father of his danger, even now, after he has already suffered what I warned him of before, he is determined to stay on here, whether or no."

"Thee must know," said Sarah, "that this place is all that we have. Father does not know how we should live without the income from it."

"That is what he tells me—but I am sure he can do something in town. There is a great demand for carpenter work there now. Did he build this place?" Sarah nodded.

"Well, then—that is just the thing. Strange I did not think of it before. You talk to him about it and you can persuade him, of course."

Sarah agreed gravely to do what she could, and Dolman noticed again the innate dignity of the girl. He said, "I will see more about this in Lawrence," as he rode away.

Sarah thought what a comfort it was that her father had a friend so strong and so faithful, and went about planning how she should convince her father of the necessity of a change of residence. She thought of it all the afternoon. She had grown to love the place. She had been very happy here. She would miss the rude house which was home to her. She would miss the high hill at the rear, and the spreading tree, now golden and brown, on the slope from which you could see the road to Lawrence. But she resolutely put all this, and the thoughts and emotions it aroused, out of her mind, and began to plan for the change.

Some three weeks after this Sarah had dismissed her school for the last time. She had just gone to the top of the slope to see the children out of sight. They had stayed later than usual to-day, because she had told them it was the last of their school, for she was going to move to town. Some of them had made protestations of grief that there "wasn't goin' to be any more school;" more had openly rejoiced. One preternaturally wise-looking little girl said that "Mother would be very sorry to hear of this." She was sorry it was all over. She had expected to enjoy her little school, and she knew indeed that the mothers would be "very sorry" that this poor chance for their children to learn had been lost. For the people who had settled here were those who realized the blessings of education, and craved it for their children. But it was necessary. In a few days she would leave the lonely home that had grown dear to her.

The day was dank and drizzly. Sarah looked about her, but could see only a few yards before her, for the fog was so thick that her eye could scarcely pierce it. She was about to turn around to retrace her steps, when her eye discerned something large and black and unshapely approaching her. In a moment it was close upon her, and she recognized the beautiful horse, Brewster, and knew by the flutter of her heart who his rider was. Burk sprang from his horse and lifted his hat from his head, with the grace which never left him. He looked worn and haggard, but his eye was alight with exultation and a kind of triumph.

"I knew you would come at last!" he said. "I have passed and repassed every day in the hope of seeing you, but you were long in coming."

"It was not to see thee that I came," she cried.

"No—but I knew you would come," he repeated. "I had to see you again before I went—I could not leave without it!"

"Go! Where is thee going?"

"I am returning home," he said, watching her closely. "Will you come with me, Sarah? You know I love you. Come with me, darling, away from this wretched country—come, where the flowers blow, where the sun shines, where my mother will receive you and make you her daughter, and you can live the life you long for—ah, I know you long for beauty and luxury, though you so bravely stifle your discontent—come with me, sweetheart—I love you. I want you—and I can not live without you."

Howard spoke rapidly and with a passion of earnestness that carried Sarah along with it against her will. This place which had seemed so beautiful to her grew suddenly dreadfully distasteful. She looked over the murky fields, the heavy atmosphere weighed upon her like a burden, the fog stifled her—yes, she hated it—how readily that unfamiliar word came to her mind—she hated the dull life that stretched behind her and before. She

hated this man who stirred her soul with his earnestness—her eyes turned to him. He had thrown his arm over his horse's neck, and stood looking at her with the shadow of a great longing in his eyes. She felt her heart softening in spite of herself. His beauty, his evident suffering, his love for her, made a triple appeal to her that was hard to ignore.

"You do not hate me, as you said you did?" he asked, beseechingly.

"No, I do not hate thee," she answered, soberly.

"Do you like me, Sarah?"

"I do not approve of thee," she answered with a shake of her head which was an approach to her habitual roguishness.

"Do you love me, sweetheart?"

Sarah was frightened at the added intensity of his look, and the imperiousness of his tone.

"No—oh, no, indeed!" she answered instantly.

"Then I may as well go straight along to the devil where I belong."

"Thee is very foolish to say that," she said gravely, shocked at his words and the reckless look that came into his face. "I am thy true friend," she went on. "It may be that if this great bitterness were not between my people and thy people—yes, even between thee and me—it might have been—that—that—we should have cared for each other. But"—checking the gleam which came into his eyes, "thee is an enemy to my father. It is thy friends who are driving us away from our home. I—I—almost think I do hate thee."

"Your father is a very foolish old man, and it is his own stubbornness, not I, that has caused all this trouble to him and you."

"Thee shall not talk about my father so!" she broke in, but he went on without noticing her words. "He has been deceived by some of the abolition fanatics, who have taken advantage of his simplicity and peculiar ideas to inveigle him over to their side. Before long, your Robinsons and your Woods and your Dolmans—traitors and nigger-stealers, every one—will have him carrying concealed weapons as they do, and then you all may tremble for his safety and your own." Burk had spoken with rising anger, for it was impossible for any one—on which ever side his sympathies chanced to be—to speak of the opposite party without passion—so bitter and deep and all pervading was the hatred between them.

Sarah's face had grown white, but not with fear. She looked him straight and fearlessly in the eye.

"I will not talk with thee longer," she said, proudly. "Thee has spoken ill of my father and reviled my friends. Never again will I call myself thy friend. From henceforth there is enmity between us," and she turned as she spoke the last words.

"Oh, my darling!" he cried, seeing what he had done, and starting forward caught her hand. "Do not leave me in this way. Give me the right to protect you—I will stay in the Territory and watch over you from afar—I will guard you—I will—"

"Will thee come over to the Free-State side and help us?" asked Sarah, knowing full well what his answer would be.

A wave of anger swept over him, leaving his face white to the lips and his eyes gleaming like live coals.

"You insult me," he said. "Do you all think I am a fool?"

"At any rate I know thee does not love me," she answered. "Thee will not detain me longer. Farewell." And she disappeared in the grey fog which hung heavy over the earth.

(To be continued.)

The idea of ascending lightning is not new, although it is not generally accepted. Insisting upon the reality of the phenomenon as witnessed by Prof. P. Bruhl and himself, Prof. W. H. Everett states that the flashes seen were unbranched, that they rose like rockets from clouds into the clear sky, and that their duration was longer than that of ordinary flashes.

About 730 tons of ore have been used to produce one-fifth ounce of radium.

## For the Little Ones

### THE REASON.

Grandma Gruff said a curious thing,  
"Boys may whistle, but girls must sing."  
That's the very thing I heard her say  
To Kate, no longer than yesterday.

"Boys may whistle." Of course they may,  
If they pucker their lips the proper way;  
But for the life of me I can't see  
Why Kate can't whistle as well as me.

"Boys may whistle, but girls must sing."  
Now I call that a curious thing.  
If boys can whistle, why can't girls, too?  
It's the easiest thing in the world to do.

So if the boys can whistle and do it well,  
Why can not girls—will somebody tell?  
Why can't they do what a boy can do?  
That is the thing I should like to know.

I went to father and asked him why  
Girls couldn't whistle as well as I  
And he said, "The reason that girls must  
sing  
Is because a girl's a sing-ular thing."

And grandma laughed till I knew she'd  
ache  
When I said I thought it all a mistake.  
"Never mind, little man," I heard her say,  
"They will make you whistle enough some  
day."

—New Orleans Picayune.

### A Story for Decoration Day.

EFFIE ELTON, WALDO, KANS.

"Mamma, will you please tell us a story," said Lucy one rainy day, when the children were compelled to stay indoors.

"A true story of your schooldays or something about Decoration Day," said Frank, who was older than Lucy, and liked true stories better than fairy tales.

"Well, children," said mamma, "if you will keep quiet and pay close attention I will tell you a story of both, about one Decoration Day and of my schooldays too."

"It happened on Decoration Day, twenty-two years ago, but my story will have to begin the day before. I was nearly fourteen years old and we lived in the oil country of Pennsylvania, in a little backwoods settlement. Our schoolhouse was on the opposite side of a creek from where we lived. The creek was a harmless little brook in summer, but now from the spring rains was a raging torrent. Nearly all of the school-children lived on the same side of the creek that we did, but there was a good wagon-bridge and no one felt any uneasiness about their children on their way to and from school.

"My sister, who was a year and a half younger than I, and I decided one evening on our way home from school to go by way of a footlog that lay a quarter of a mile above the bridge. It was a nearer way home and we, with the usual thoughtlessness of children, did not think of the possible consequences. None of the school-children had dared to go that way since the spring rains as the creek was very swift at this place. It would not have been so bad had it just been my sister and I, as we were used to walking on high "steam boxes" that crossed deep ravines and ran in every direction like a net work of narrow sidewalks a foot wide all over the oil country; but my half-sister Bertha, who was not yet six years old, and another little girl, Nellie Byron by name, just a little past six years, were with us and of course would go home the way we did.

"But we did not realize the danger. You see it is a common fault of most people that, being used to anything where there is more or less danger, they grow careless or rather thoughtless of the fact that there is any danger.

"Nellie Byron's home was in the same direction as our own only not so far. So we four girls set out to cross the footlog. It was nearly two feet in diameter with the bark chopped off of the top side, making it a little flat. The water being so terribly swift here, I shudder as I think back of the chances we all took of falling. We got across safely, however, each one of us older girls put a hand on the shoulder of each of the smaller girls to steady them, letting them go ahead of course, and they had implicit confidence in our ability to take them safely across. They little dreamed that it was all we could do to keep

from becoming dizzy. Nothing was said about going that way again while the water was so high, but I made up my mind I would not and did not think that Nellie would be likely to try it, without some one older to help steady her as I had just done, as she was a very timid child.

"The morning of Decoration Day was a beautiful spring day. The woods were full of singing birds and sweet smelling flowers and all nature rejoiced and made one feel glad to be alive. My sister, my half-sister and I came along on our way to school, never thinking but what Nellie would wait for us, as we were in plenty of time for school. My little half-sister was bringing Nellie some candy. As Nellie's little brother, younger than herself, was going to visit the school that day he probably got impatient to be off, and that was why she did not wait for us. In fact there was no one at Nellie's home when we came by, so we hurried on.

"Two women ahead of us, who proved to be Mrs. Byron and her hired girl, were hurrying on toward the creek as the alarm had been given that one of the school-children had fallen in. People were running from every direction toward the creek and the mothers of the school-children ran screaming, thinking it might be one of their own. Mrs. Byron's fears were mostly for Tommie, Nellie's brother.

"As we drew near the bridge a small crowd had gathered, and several men were climbing down on the bridge to be ready to catch the little form as it came floating by. I do not know whether Nellie's mother recognized the floating curls and dress or not while she was yet in the water, for it was Nellie, but I know I did not. Soon she was lifted to outstretched hands and laid on the bridge. The grief of her mother was pitiful to see. She did not faint nor cry aloud, but the clasp- ing and unclasp- ing of her hands and her low moaning sobs told of grief almost too deep to find outward expres- sion.

"Everything was done to bring the child to life but to no purpose, and I, unable to endure the scene any longer, went on to the schoolhouse, my mind dazed and almost paralyzed with grief and remorse, for well I knew Nellie would not have ventured by way of the footlog had we not taken her that way the night before." (Here mamma paused to get control of her voice.)

"Nellie had fallen from the footlog above the bridge. Another girl a little older than Nellie and her brother Tommie were the only ones who saw her fall, and she, because of having crossed safely the night before, started to go first.

"As there was no one else at the schoolhouse, I turned back and went to Nellie's home. There I found them working yet to revive the child, her wet clothes having been changed for dry ones. Her father sat on the edge of the porch holding her in his arms, while her mother and some neighbor women rubbed the little cold limbs, trying to restore circulation. I turned away from the heart-rending scene with a heavy heart. How different were my feelings as I walked home- ward, from what they had been in the morning when starting out. The sun shone just as bright, and the singing birds and sweet-smelling flowers were just as beautiful, but to me, every- thing was gloom and blackness. How I wished we had not taken Nellie across the footlog, but the sad results were past undoing now. If young people would only stop and think ahead, especially in matters where others are influenced by their actions, there might be fewer regrets and heartaches in this world.

"There was no school that week and the week after the children had not the heart to play at noons and recesses, but stood around in little groups or gathered flowers and decorated Nellie's desk, keeping fresh flowers on it as long as they could be found, as it was understood no one else would sit there during that term, and as each Decoration Day comes around I think of the results of one bit of thoughtless- ness.



Miss Alice M. Smith, of Minneapolis, Minn., tells how woman's monthly suffering may be quickly and permanently relieved by Lydia E. Pinkham's Vegetable Compound.

"DEAR MRS. PINKHAM:—I have never before given my endorsement for any medicine, but Lydia E. Pinkham's Vegetable Compound has added so much to my life and happiness that I feel like making an exception in this case. For two years every month I would have two days of severe pain and could find no relief, but one day when visiting a friend I run across Lydia E. Pinkham's Vegetable Compound,—she had used it with the best results and advised me to try it. I found that it worked wonders with me; I now experience no pain and only had to use a few bottles to bring about this wonderful change. I use it occasionally now when I am exceptionally tired or worn out."—MISS ALICE M. SMITH, 804 Third Ave., South Minneapolis, Minn., Chairman Executive Committee Minneapolis Study Club.

Beauty and strength in women vanish early in life because of monthly pain or some menstrual irregularity. Many suffer silently and see their best gifts fade away. Lydia E. Pinkham's Vegetable Compound helps women preserve roundness of form and freshness of face because it makes their entire female organism healthy. It carries women safely through the various natural crises and is the safeguard of woman's health.

The truth about this great medicine is told in the letters from women published in this paper constantly.

Mrs. C. Kleinschrodt, Morrison, Ill., says:—



"DEAR MRS. PINKHAM:—I have suffered ever since I was thirteen years of age with my menses. They were irregular and very painful. I doctored a great deal but received no benefit.

"A friend advised me to try Lydia E. Pinkham's Vegetable Compound, which I did, and after taking a few bottles of it, I found great relief.

"Menstruation is now regular and without pain. I am enjoying better health than I have for sometime."

How is it possible for us to make it plainer that Lydia E. Pinkham's Vegetable Compound will positively help all sick women?

All women are constituted alike, rich and poor, high and low,—all suffer from the same organic troubles. Surely, no one can wish to remain weak and sickly, discouraged with life and without hope for the future, when proof is so unmistakable that Lydia E. Pinkham's Vegetable Compound will cure monthly suffering—all womb and ovarian troubles, and all the ills peculiar to women.

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WHEN WRITING OUR ADVERTISERS PLEASE MENTION THIS PAPER.

## The Home Circle

CONDUCTED BY RUTH COWGILL.

### THE ROLL-CALL.

(Old Favorite Series.)

(Written by Nathaniel Graham Shepherd, a New York journalist, who served at the front as a war correspondent. He died at New York, about 1870, in his 35th year. "The Roll Call" was published in Harper's Monthly in 1862.)

"Corporal Green!" the Orderly cried,  
"Here!" was the answer, loud and clear,  
From the lips of a soldier who stood  
near;  
And "Here" was the word the next re-  
plied.

"Cyrus Drew!"—then silence fell,  
This time no answer followed the call;  
Only his rear man had seen him fall,  
Killed or wounded, he could not tell.

There they stood in the falling light,  
These men of battle, with grave, dark  
looks,  
As plain to be read as open books,  
While slowly gathered the shades of  
night.

The fern on the hillside was splashed  
with blood,  
And down in the corn, where the pop-  
pies grew,  
Were redder stains than the poppies  
knew,  
And crimson dyed was the river's flood.

For the foe had crossed from the other  
side  
That day in the face of a murderous fire  
That swept them down in its terrible  
ire,  
And their life-blood went to color the  
tide.

"Herbert Kline!" At the call there came  
Two stalwart soldiers into the line,  
Bearing between them this Herbert  
Kline,  
Wounded and bleeding to answer his  
name.

"Ezra Kerr!" and a voice answered  
"Here!"  
"Hiram Kerr!"—but no man replied,  
They were brothers, these two, the sad  
wind sighed,  
And a shudder crept through the corn-  
field near.

"Ephraim Deane!"—then a soldier spoke  
"Deane carried our regiment's colors,"  
he said,  
"Where our ensign was shot I left him  
dead,  
Just after the enemy wavered and broke.

"Close to the roadside his body lies,  
I paused a moment and gave him a  
drink;  
He murmured his mother's name, I  
think,  
And death came with it and closed his  
eyes."

'Twas a victory, yes; but it cost us dear;  
For that company's roll, when called  
at night,  
Of a hundred men who went into the  
fight,  
Numbered but twenty that answered  
"Here!"

### Women in Poultry Culture.

EMMA J. MELLETTE.

[In The Business Woman's Magazine I found the following exceedingly interesting article. I am glad to pass it on, sure it will be helpful to some one.]

When I look back over my life, I can not wonder that I am an enthusiast on the subject of what can be done with poultry, for at the age of five years, my mother was left a widow, with nothing between her and the cold world but a tiny little needle and no skill. For a year she worked as an apprentice supporting herself and me, as best she could with what she earned working over hours at ten cents an hour.

By the time that I was nine, she managed to save one hundred dollars, with which she meant to start a little home for herself and me. But at this juncture, she presented me with what, in any girl's life is always a synonym for mental torture and dread—a step-father. It might not be amiss right here to remark, that he proved to be a man who had not the tiniest bit of business ability, and that that hundred dollars was more money than mother ever saw at any one time in her life again.

We had been living at Napa, California, but at that juncture, we moved to Eureka, in the northern part of the State. We were always moving around from post to pillar, but several of the houses in which we lived, I can remember now as I look back at them through the light of my later experience, had ample room and accommodation for a good hundred hens. If we had but known then about chickens and the profits to be made from them,

At one place in which we lived, however, we did have chickens, and I remember taking a few eggs to the store, for which I obtained 50 cents a dozen in dry goods. I also remember that we kept corn in a box for them to eat at will, which, in this age of poultry enlightenment, would be considered the next thing to poison. Our neighbor's chickens, yes, and turkeys too, heard about that box of corn, and it was no uncommon occurrence to go out and find both visiting chickens and turkeys resting on our roosts any time in the day. We always drove them home, but if such a thing should happen nowadays, I believe we would simply shut the house till they had each laid an egg to pay for the feed they stole.

When I was twelve years of age, we moved to San Francisco, and then the struggle began. Many and many a night did I at that age sit up till one and two o'clock in the morning making button holes on poorly paid custom work, for the ready made under-clothing stores. Is it any wonder that at comparatively an early age I took to wearing glasses? In the course of a year or two, we moved to Watsonville, a town not very far from the well-known winter resort of Santa Cruz. There we lived for three years on the outskirts of the town, where, besides our home, we had a big barn and an acre lot. During that time we kept a few chickens, but we knew nothing of their care, and I know that we never sold an egg. While there, "The Professor" (I always called my step-father by that title), brought home a trio of beautiful White Leghorns. They were shut up in a little yard so that they would not mix with the common birds and finally they died, from starvation, probably.

Time went on and at eighteen I came out to Colorado to live with a dear old bachelor uncle, near the towns of Erie and Canfield. I soon began teaching school; my work took me out in the country and among the farmers, where I began to learn the charm about chickens. I grew to have a distaste for teaching after the first term. I never did any work with the chickens because my uncle seemed to like to do that himself, but he did say that if I would take care of the milk he would give me a calf. I had no taste for that sort of work, however, and I made of it a dismal failure.

In the course of a few years, a certain gentleman arrived upon the scene, and the usual inevitable change came into my young life. We were married and settled in Boulder. But by that time life in the country held so many charms for me that two city lots seemed a prison. My love for the feathered tribe had so developed that I longed for a few acres of farm land whereon I might devote my time to poultry-raising.

Before we were married, Mr. Mellette had spoken quite prettily of "Mrs. Mellette's chicken's making music in the barnyard," but afterwards he seemed strangely to forget the "musical" part of the matrimonial program, and strongly objected to the great amount of work poultry-raising would mean for me. It took ten long years of experience to teach him there was money in chickens, though my accounts impressed him more each year. I may add that his prejudice developed even in my children (for it took me five years to teach my son to shut up the chickens at night, while my little daughter would often sit on the porch watching the chickens and say, "Mamma, how can you stand the dirty things?")

The first two years of my experience, I am frank to confess, I did not make much of a success, in fact the chickens "ate their heads off." Later, when I ran across a poultry paper I was amazed to find that there was a literature devoted to poultry culture, just the same as there is to politics or fashion. I then began to make my work count for profit. Soon my husband lost his health and many a time our only source of income has been from the sale of chickens and eggs.

It is not fitting that in this article, I should enter into any of the details of poultry work, so I will merely give

a few of the facts that I have gained in my experience as editor of the Western Poultry World—facts which go to prove how much poultry-raising has done and may still do for women the country over, both financially and otherwise.

Two years ago I was up in South Dakota, the weather was cold and piercing and I can remember standing by the stove in the poultry show, talking to a woman on the subject of poultry culture. She had had some interesting experiences, and, in the course of the conversation, when I said, "I often wonder what I should do with my life, if my chickens should drop out of it," there was a hungry, yearning look in her eyes as she said, "I have often wondered that selfsame thing myself."

Down in Circleville, Texas, there lives a woman, whom, though I have never seen her, I know by correspondence. She is a woman of culture and refinement and a brilliant writer on poultry topics. Of her, the veteran poultry judge, I. K. Feich, has said to me, "Mrs. McAnulty is as pretty as a peach, and the sharpest woman I have ever met in poultry culture." She has attained for herself such a fame as a breeder of Buff Cochins and Buff Leghorns that she oftentimes sells her birds by wire for \$25 and \$50 apiece.

This winter I had the pleasure of attending a poultry show at Lincoln, Neb. During the show there was exhibited in the big glass window of a dry goods store a pen of ten single comb Brown Leghorns; any one who knows the breed, needs not to be told that they are as pretty and as active as a quail; they attracted not a little attention. In the front of the window was a big box of eggs, with a sign attached reading—"Laid by these egg-machines in winter." They made me think of a little girl whom I had seen at Fremont a few weeks before at a poultry show. One evening at the house where I roomed there came a little girl who wanted a room; the cheapest room the woman had was \$3 a week, and the girl was to begin work in the seed store on the Monday following at \$4. The landlady must have her money in advance, and what the girl was to do was a question, though she thought she had a friend in the town who would loan her the money to pay till she could earn it for herself. She went out to look for the friend, but she did not return. When I saw those hens in the window, I thought to myself—"Oh, if that poor child had only been versed in poultry culture, she could have stayed right at home and made more than that with chickens, even though she did not have a whole farm to let the chickens roam upon."

While attending at the Kansas City poultry show, I met a very stylish and interesting woman who said to me, "We have only a town lot, but I have made \$85 off of my chickens so far this year. I always did like chickens; in my youth I lived on the farm, my mother died and I had the care of the family, but I raised such a lot of chickens and ducks every year, that it was a wonder to every one. When I was married and came to Kansas City, I missed my chickens, so I soon got some. Sometimes I am almost sick enough to go to bed, but instead, I go out and work with my chickens for a whole half day, and I come in with renewed life and vigor. My neighbors complain that they do not have any money to spend; if they would do as I do they could have money." Later in the show she came to me and said, "I have had good luck, I have just sold two of my Barred Rock cockerels for \$5 apiece."

Just the other day a woman came into my office in Denver and said to me, "I have been raising poultry for just one year, but I have kept a book account and have made enough to pay for all my stock and my buildings and \$25 over."

Out in Salt Lake, where I went to attend their poultry show, a woman said to me, "I started in with 17 Barred Rock hens on the 10th of October, and in a year from that time, I had cleared \$48.40. The second year, from 42 hens,



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I cleared \$104. I do my own work, in the house and out of it, with only a six-year-old boy to help me. I live in the city and one day I put a sign up on the gate, "Fresh Eggs for Sale," and in less than two hours, I had all contracted for that I could possibly spare. Some of my customers are invalids to whom I deliver just two eggs a day (because they want them fresh), but they pay me 50 cents a dozen, so I can afford to bother with them that way."

I could tell of many more cases that would give courage, determination and ambition, to those who know not the "Game" of poultry culture, of how women have gained their lost health and vigor from the absorption and outdoor work, but space forbids. Once a woman said to me, "Mrs. Mellette, had I been interested all these years that we have been living on rented farms, in something that would bring in money, like poultry culture, rather than in shopping and spending money, we would now be living on a farm of our own."

One interesting feature of the poultry work is that it keeps one in touch with the busy, business world, and the more business ability a woman has, the better will she succeed, both in the financial part and in winning the fame, for it is the woman who can breed the winners that wins the fame. At the Kansas State Show at Topeka, I met a sweet little woman from Carrolton, Mo., Mrs. Creel by name. She is a breeder of Silver and Golden Laced Wyandottes. She said to me, "I love the work of breeding fancy poultry. I consider myself just as much of an artist, as the one who can paint the landscape with his brush, for I can mould nature so that she paints the silver and gold on the Wyandotte, just where I want it placed."

One beautiful feature of this poultry work is that it may be carried on in connection with a woman's home duties and the two need in no wise conflict. If a person be judicious, it does not take much to start with, and that woman will best succeed who is willing to begin on a small scale and work out to something more extensive, learning the way as each step is taken.

In the last twenty years of my life, I have spent many an hour writing poultry items; sometimes I think that I would be a sharper woman, had I put that time in instead, on reading books that might have brightened up my intellect, but could I give to just one woman the impetus to do that which will be of financial help to her, could I give the courage of my convictions to just one woman who craves beauty and luxury in her life, then the time has not been spent in vain, and I am content.

**Influence of Environment.**

One of the great advantages made in modern sociology has been in the realization of the influence which environment has on the individual. It has come to be pretty generally accepted that out of homes of vice and filth good and useful lives seldom develop, and that more preaching and exhortation are insufficient weapons with which to combat the evils of the slums. The cry of to-day is not to condemn the half-starved waif of the streets for his soiled, lawless life, but to give him a clean home, wholesome food and a decent garb first, and then ask him to live his life as a man among men. The child in the school must study in a clean, airy building, the boy at college must have bright, wholesome surroundings, and even the prisoner in jail must be housed in a clean and decent looking structure.

Environment, the influence for good or for evil of one's surroundings is the great lesson of the times, as opposed to the doctrine of our sturdy forefathers who sternly bade the faltering one chastise his spirit and cast out the devil within him. But the thoughtful men of to-day do not stop with the idea that a man's surroundings must be decent and clean, whether he be prince or pauper. The influence of beauty, men have to come to depend on as a great motive power for good. Whether this beauty be one of architecture, painting, plant life, or landscape is no great matter, as all tend toward the same end.—Selected.

**Creed-Making of Bowdoin College Seniors.**

That was an interesting bit of creed-making indulged in by President Hyde of Bowdoin College and his sixty seniors, as described by the president in the Outlook. The sixty students were asked to write out their individual creeds. These creeds the president condensed into a composite creed and then submitted to the class, and at the end of the second hour it was unanimously adopted. Here is the creed of the class of 1903:

"I believe in one God, present in nature as law, in science as truth, in art as beauty, in history as justice, in society as sympathy, in conscience as duty, and supremely in Christ as our highest ideal.

"I believe in the Bible as the ex-

pression of God's will through man; in prayer as the devotion of man's will to God; and in the church as the fellowship of those who try to do God's will in the world.

"I believe in worship as the highest inspiration to work; in sacrifice as the price we must pay to make right what is wrong; in salvation as growth out of selfishness into service; in eternal life as the survival of what loves and is lovable in each individual; and in judgment as the obvious fact that the condition of the gentle, the generous, the modest, the pure and the true is always and everywhere preferable to that of the cruel, the sensual, the mean, the proud, and the false."

The human body changes its temperature very slightly under any conditions of heat or cold, but a Russian Naturalist finds that the body temperature of insects is practically that of the atmosphere. It usually rises more slowly than the air, though more rapidly when the air is very moist. When the insect begins to move, the temperature rises rapidly, and may reach about 38° C. (102.4° F.). Below —.05° C. insects remain motionless, and the wings are not moved until the temperature reaches about 12° C.

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**Our Club Roll.**

Mutual Improvement Club, Carbondale, Osage County (1896).  
Give and Get Good Club, Berryton, Shawnee County (1902).  
Woman's Literary Club, Osborne, Osborne County (1902).  
Ladies' Reading Club, Darlington Township, Harvey County (1902).  
Woman'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).  
Ladies' Social Society, No. 2, Minneapolis, Ottawa County (1889).  
Ladies' Social Society, No. 3, Minneapolis, Ottawa County (1891).  
Ladies' Social Society, No. 4, Minneapolis, Ottawa County (1897).  
Chaltee Club, Highland Park, Shawnee County (1902).  
Cultus Club, Phillipsburg, Phillips County (1902).  
Literary Club, Ford, Ford County (1903).  
Sabeen Club, Mission Center, Shawnee County, R. No. 2 (1899).  
Star Valley Woman's Club, Iola, Allen County (1902).  
West Side Forestry Club, Topeka, Shawnee County, R. No. 8, (1903).  
Fortnight Club, Grant Township, Reno County (1903).  
Progressive Society, Rosalia, Butler County (1903).  
Pleasant Hour Club, Wakarusa Township, Douglas County.  
The Lady Farmers' Institute, Marysville, Marshall County (1902).  
The Woman's Progressive Club, Anthony, Harper County.  
[All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.]

**Cosmos Club.**

MRS. FLORENCE SHAW KELLOGG.

The Cosmos Club of Russell and vicinity is a ladies' club. It was organized in the spring of 1902 with twenty-four charter members. The cosmos is the club flower, its colors are rose and white, and its sentiment, which we strive to make a working force in each life is "The least flower with brimming cup may stand and show its dew-drop with another near." At present we have a membership of about fifty, and there is much earnestness and enthusiasm shown in the work. We meet every other Friday night, beginning with the last Friday in September and continuing for nine months thereafter. Twice during the nine months we have a social evening, when our husbands and other gentlemen friends join us, and a general good time is had. We have also two or more musical evenings each year. Our object is mutual self-improvement, and the fostering of a higher, more intellectual social life. The programs are varied but follow along definite educational lines, which include both past and present times. The membership fee is fifty cents yearly. The officers are: President, Mrs. Carrie B. Clarke; vice-president, Mrs. Allie E. Breck; secretary-treasurer, Mrs. Anna C. Banker, all reelected from last year. There is also a parliamentarian and a critic.

**FORTUNE TELLING**

Does not take into consideration the one essential to woman's happiness—womanly health. There is many a woman whose future seems absolutely unclouded who is marked by her own condition for future disappointment and distress.

The woman who neglects her health is neglecting the very foundation of all good fortune. For without health love loses its lustre and gold is but dross.

Womanly health may be retained or regained by the use of Dr. Pierce's Favorite Prescription. It establishes regularity, dries the drains which weaken women, heals inflammation and ulceration and cures female weakness. It makes weak women strong, sick women well.

Dr. Pierce offers \$500 reward for women who cannot be cured of the above diseases. His "Prescription" has been so successful in curing thousands of cases in the past third of a century that he makes this remarkable offer to show his confidence.

"I have taken six bottles of Dr. Pierce's Favorite Prescription," writes Miss M. Fyfe, of Orillia, Simcoe Co., Ontario, "and two bottles of the 'Pleasant Pellets' as you advised for congestion of uterus, ovaries, and weakness, and can safely say that your medicine has been the means of restoring me to good health again, which I had not had for over three years, until taking your medicine. I thank you very much for your kind and prompt attention to my letter asking advice."

"Favorite Prescription" has the testimony of thousands of women to its complete cure of womanly diseases.

Dr. Pierce's Pleasant Pellets clear the complexion and sweeten the breath.



**\$50,000.00  
Cash Given Away  
TO USERS OF  
Lion Coffee**

We are going to be more liberal than ever in 1904 to users of *Lion Coffee*. Not only will the Lion Heads, cut from the packages, be good, as heretofore, for the valuable premiums we have always given our customers, but

**In Addition to the Regular FREE Premiums**

the same Lion Heads will entitle you to estimates in our **\$50,000.00 Grand Prize Contest**, which will make some of our patrons rich men and women. You can send as many estimates as desired. There will be

**Two Great Contests**

The first contest will be on the July 4th attendance at the *St. Louis World's Fair*; the second relates to *Total Vote for President* to be cast Nov. 8, 1904. **\$20,000.00** will be distributed in each of these contests, making **\$40,000.00** on the two, and in order to make it more interesting, in addition to this amount we will give a

**Grand First Premium of \$5,000.00**

to the one who is *nearest correct on both contests*, and thus your estimates have two opportunities of winning a big cash prize.

Five Lion Heads cut from Lion Coffee Packages and a 2c stamp entitle you (in addition to the regular free premiums) to one vote in either contest:



Printed blanks to vote on found in every Lion Coffee Package. The 2c Stamp covers the expense of our acknowledgment to you that your estimate is recorded.

**WORLD'S FAIR CONTEST**

What will be the total attendance at the St. Louis World's Fair on July 4, 1904? At Chicago, July 4, 1893, the attendance was 283,273. For nearest correct estimates received in Woolson Spice Company's office, Toledo, Ohio, on or before June 30, 1904, we will give first prize for the nearest correct estimate, second prize to next nearest, etc., as follows:

1 First Prize	.....	\$2,500
1 Second Prize	.....	1,000
2 Prizes—\$500.00 each	.....	1,000
5 " " —200.00 each	.....	1,000
10 " " —100.00 each	.....	1,000
20 " " —50.00	.....	1,000
50 " " —20.00	.....	1,000
250 " " —10.00	.....	2,500
1800 " " —5.00	.....	9,000
2139 PRIZES	TOTAL,	\$20,000

**PRESIDENTIAL VOTE CONTEST**

What will be the total Popular Vote cast for President (votes for all candidates combined) at the election November 8, 1904? In the 1900 election 13,959,533 people voted for President. For nearest correct estimates received in Woolson Spice Company's office, Toledo, Ohio, on or before November 5, 1904, we will give first prize for nearest correct estimate, second prize to next nearest, etc., as follows:

1 First Prize	.....	\$2,500
1 Second Prize	.....	1,000
2 Prizes—\$500.00 each	.....	1,000
5 " " —200.00	.....	1,000
10 " " —100.00	.....	1,000
20 " " —50.00	.....	1,000
50 " " —20.00	.....	1,000
250 " " —10.00	.....	2,500
1800 " " —5.00	.....	9,000
2139 PRIZES	TOTAL,	\$20,000

**4279—PRIZES—4279**

Distributed to the Public—aggregating \$45,000.00—in addition to which we shall give \$5,000.00 to Grocers' Clerks (see particulars in LION COFFEE cases) making a Grand Total of \$50,000.00.

Complete Detailed Particulars in Every Package of  
**LION COFFEE**  
WOOLSON SPICE CO. (CONTEST DEPT), TOLEDO, OHIO.

**J. G. PEPPARD ALFALFA MILLET, CANE CLOVER SEEDS**  
1101-17 W 8th St. KANSAS CITY, MO. TIMOTHY GRASS SEED

**GREAT AMERICAN DESERT SEEDS**

are best for general use, because they are grown in the heart of the region once known as the Great American Desert, at an altitude of over 2,000 feet above sea level, without irrigation. Order at once Blue Squaw Corn, Cane, Kafir, Red Siberian, Common and Brown Corn Millet and Alfalfa Seed. M. G. BLACKMAN, Hoxie, Sheridan County, Kans.

**SEED-CORN**

Buy your seed of the farmer. Sun- and wind-dried, upland-grown. **Early Leaning, Cattle King (Yellow), Mammoth White Dent, Farmers Interest (White)**. We can ship in the ear, carefully crated; or shelled, in sacks. Write to us for our New Catalogue and Samples. We grow our seed-corn on our own farm.

**W. W. VANSANT & SONS,**  
Farragut, Iowa.



For the Tourist who desires to unite pleasure with comfort at moderate cost.  
For those Seeking Health in the balmy and invigorating Lake Breezes.  
For the Business Man to build up his shattered nerves.  
Three sailings each week between Chicago, Frankfort, Northport, Charlevoix, Petoskey, Harbor Springs and Mackinac Island, connecting for Detroit, Buffalo, etc. Booklet Free.  
**JOS. BEROLZHEIM, G. P. A.**  
Chicago

### GOVERNMENT SURVEY CORNERS CONTROL.

(Continued from page 577.)

ments to be erected so that there may be no doubt of the location of corners. Only by a special act of the Legislature can the danger of costly litigation and a general unsettling of lines be avoided where the original Government survey marking have not been observed.

### Miscellany

#### For Good Roads.

The movement for good roads is National in scope and intense in its earnestness. We rarely meet with a farmer or stock-breeder in the State who is not in favor of good roads. Attempts have been made at various times to secure the passage, by the Legislature, of Kansas, of bills whose object is the improvement of the roads. Several States have passed such bills and the results are satisfactory. The agitation in other States is earnest and this winter will doubtless see the passing of such laws by the Legislatures of many of them. We are proud to know that no country on earth has made such progress along industrial lines as has the United States and we believe that no single agency has been so potent in accomplishing this result as have the railroads. Railroad building has about reached its limit and the country roads and city streets are to be looked to if our industrial comfort is to continue. For the sake of showing what is now being attempted in the way of legislation by the National Good Roads' Association, we publish herewith the Latimer-Brownlow bill now pending before Congress and a bill suggested by men of the greatest experience for adoption by the State Legislatures as the best means to the end in view. We hope they will be read, digested, and criticised.

#### THE LATIMER-BROWNLOW BILL.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established in the Department of Agriculture a bureau to be known as the Bureau of Public Highways.

Sec. 2. That the object and purpose of said bureau shall be to cooperate with the various States and Territories of the United States in the construction and improvement of permanent public roads according to the provisions of this act; to make investigations and experiments in regard to the best methods of road-making and the best road-making materials; to cooperate with the various States and Territories of the United States in the construction of object-lesson roads; to publish and distribute bulletins and reports on the subject of roads and road improvement; to bring about, as far as may be, a uniform system for the repair, improvement, and construction of the public roads throughout the United States.

Sec. 3. That the said bureau shall consist of three commissioners, to be known as "Commissioners of Highways," two of whom shall be appointed by the President, by and with the advice and consent of the Senate, in the following manner: One from the political party in control of the executive branch of the Government, who shall be the chairman of the commission; one from the largest minority political party. Both of the aforesaid commissioners shall have practical knowledge of road-engineering and construction and shall receive a salary of \$5,000 per annum each. The President shall detail to serve as the third member of said commission an officer of the engineer corps of the United States Army on the active or retired list of rank not below that of captain, who shall receive, in addition to the pay allowance of his rank in the United States Army, a sum sufficient to make \$5,000 per annum. The said Commissioners of Highways shall appoint, subject to the approval of the Secretary of Agriculture, such other officers, agents, and servants as may be

required to carry into effect the provisions of this Act: Provided, That the said Commissioners of Highways shall be under the general supervision of the Secretary of Agriculture, who shall exercise general jurisdiction over all matters and acts coming under their control by virtue of this enactment.

Sec. 4. That after the expiration of six months from the date of the approval of this Act, any State or Territory, or civil subdivision thereof, through the proper officers having jurisdiction of the public roads, may apply for aid in the improvement or construction of the public roads or sections thereof located in said State or Territory.

Sec. 5. That the said Commissioners of Highways shall make and promulgate all needful rules and regulations under which the various States and Territories, or civil subdivisions thereof, may apply for and receive the benefits of this Act. The said rules and regulations shall be approved by the Secretary of Agriculture.

Sec. 6. That no State or Territory, or civil subdivision thereof, shall be entitled to receive the benefits of this Act until it shall have established, to the satisfaction of the said Commissioners of Highways: First, that the highway or section thereof sought to be improved or constructed is of sufficient public importance as to come within the purview of this Act, taking into account the use, location, and value of such highway, or section thereof, for the purposes of common traffic and travel and for the delivery of the mail of the United States; second, that the requisite right of way for the improvement and construction of the highway or section thereof has been secured; third, that the highway or section thereof when constructed or improved will be maintained and kept in repair without recourse upon the United States; fourth, that the State or Territory, or civil subdivision thereof, has provided for the payment of its portion of the total cost of the improvement or construction as provided for in this Act.

Sec. 7. That one-half of the expense of the improvement or construction of any public highway of any State or Territory, or civil subdivision thereof, that may receive the benefits of this Act shall be paid by the Treasurer of the United States, upon the warrant of the Secretary of Agriculture, issued upon the requisition of said Commissioners of Highways, out of any specific appropriation made to carry out the provisions of this Act, and that one-half of the expense thereof shall be paid by the State or Territory, or civil subdivisions thereof, in which the highway or section thereof is located: Provided, That nothing herein contained shall prevent the said States or Territories from distributing their portion of the cost among their several civil subdivisions: Provided further, That nothing herein contained shall prevent the said States or Territories, or civil subdivisions thereof, from receiving credit for all labor, material, and machinery used in the construction or improvement of said highway or section thereof: Provided further, That no money shall be advanced by the United States in payment of its portion of the cost in payment of its portion or construction as herein provided for, except as the work of actual construction progresses, and in no case shall the payment or payments made prior to the completion of the work be in excess of 80 per centum of the value of the work actually performed.

Sec. 8. That there is hereby appropriated, out of any moneys in the Treasury not otherwise appropriated, for the purpose of carrying out the provisions of this Act, the sum of \$24,000,000 the said appropriation to be available at the rate of \$8,000,000 a year during the years 1904, 1905, and 1906. If any of the appropriation herein made is not expended in the year named, that portion not expended shall become available the succeeding year. This appropriation shall be distributed in the following manner: No State or Territory shall receive in any one year a larger proportion of the sum hereby appropriated than its population bears

U S U S U S U S U S

## THE U. S. CONTINUES TO WIN

At the Illinois Buttermakers Meeting, Springfield, Ill.,  
March 30-April 1, 1904.

**The Butter that Scored the Highest was made from U. S. Separator Cream**

by Mrs. W. M. Corrington, the Winner of the Dairy Sweepstakes at the Illinois State Fair last Fall.

**The Best Separator Produces the Best Product**

which accounts for the large number of prizes won by users of the U. S.

Remember also

**The U. S. Separator Skims the Cleanest Holds World's Record Wears the Longest Has Low Supply Can**

and many other features of excellence, which make

**The U. S. the most Profitable Separator to Buy.**

*Write for catalogue giving full information.*

We have the following transfer points: Portland, Me., Sherbrooke and Montreal, Que., Hamilton, Ont., La Crosse, Wis., Minneapolis, Minn., Chicago, Ill., Sioux City, Ia., Omaha, Neb., Kansas City, Mo. Address all letters to

**Vermont Farm Machine Co., Bellows Falls, Vt.**

U S U S U S U S U S

to the total population of the United States.

The Senate Committee on Agriculture will report this bill favorably December 12, 1904.

#### PROPOSED FORM OF BILL, PROVIDING FOR A STATE ENGINEER AND STATE AID IN HIGHWAY CONSTRUCTION.

Be it enacted by the General Assembly of the State of . . . . .:

Section 1. The Governor shall appoint as State Engineer some competent and experienced civil engineer of firmness, energy and good character, who shall be chosen solely with a view to his fitness and without reference to his politics or to his residence at the time of his election. He shall reside in . . . . . during his incumbency in office, and receive . . . . . per year for his services, payable monthly; to be allowed in addition thereto his reasonable traveling expenses when actually engaged in his official duties. He shall be provided with an office suitably furnished and with necessary stamps and stationery and be allowed sufficient clerical help.

Sec. 2. In addition to his other powers and duties, the State Engineer shall, (a) compile statistics relative to the public highways throughout the State and collect information in regard thereto; (b) shall investigate and determine upon the various methods of construction and maintenance of roads and bridges, adapted to the different sections of the State; (c) may be consulted at all reasonable times by county, city, or other officers, having care or authority over highways and bridges, and he shall advise them relative to the construction, maintenance, alteration, or repair of the same; (d) he shall send out to the county judges, road commissioners, and road overseers, from time to time, practical literature relating to roads and highways; (e) he shall without delay make careful tests of all rock, stone, binders, fillers or other road material sent him for examination by the county judges, county road commissioners, road overseers, and make a full report thereon, and the cost of transporting said material for examination shall be borne by the State; (f) he shall quarterly, beginning in January, make and publish a report, to the people of the State, giving full information and as far as possible without the use of technical terms as to the various stone and other road materials in the State examined by him and their suitability for road-making; also make reports of the roads or parts thereof built or improved under his direction the preceding quarter, their location, cost, and the manner of improvement, and such other facts as may be useful in the improvement of the highways; (g) he shall at each regular session of the Legislature make to it a like report covering the period of his services

since its last regular session; (h) he shall at least once in each year hold or cause to be held in each county a public-road meeting, giving due notice thereof, and at such meetings shall distribute road literature, stimulate interest in road improvement and give or cause to be given practical lectures and instructions in the building of permanent roads.

Sec. 3. Any five or more residents along any public road, lying outside the boundaries of any city or incorporated town, may file their petition in duplicate, duly verified, in the office of the county clerk, asking for the permanent improvement of said road or any portion thereof, alleging that they will provide, or cause to be provided, 15 per cent of the total cost of the improvement prayed for, and setting forth clearly and concisely the reasons therefor. They shall attach to said petition, accurately and neatly drawn in ink in duplicate a plat of the road or section thereof sought to be improved, showing its location with reference to the county seat of the county in which said improvement is proposed to be made, and they shall also attach to said petition a receipt from the county treasurer for the sum of \$50, which sum in the event that said petition shall not be granted, or in the event that the said 15 per cent shall not be deposited as hereinafter provided, shall go into the general fund of the said county, but in case said petition shall be granted and the said 15 per cent deposited as in this act provided, said \$50 shall be counted in making up the 15 per cent required to be raised by the said petitioners. Notice of said petition, with the purpose thereof, signed by said petitioners, shall be published in some newspaper of the county at least ten days prior to the beginning of the next regular term of the county court, at which term it shall be set for hearing.

Sec. 4. Upon proof of such notice, and after full compliance with the requirements of Section 3, the court shall proceed to hear said petition; and, if the levying or county court, last preceding, shall have made an appropriation for building and repairing public roads and bridges and the condition of county revenues justifies the expenditures necessary to make the improvements prayed for, the court shall grant said petition, and shall forward immediately one copy of said petition and plat, together with his order, to the State Engineer.

Sec. 5. The State Engineer shall then carefully examine said petition and plat and determine whether or not the proposed improvement is of sufficient importance to justify the necessary cost thereof, having in view the use, location, and value of such highway or section thereof, for common traffic and travel, and if he approves the petition shall so order, such engi-

**PILES NO MONEY TILL CURED. 25 YEARS ESTABLISHED.**

We send FREE and postpaid a 200 page treatise on Piles, Fistula and Diseases of the Rectum; also 100 page illus. treatise on Diseases of Women. Of the thousands cured by our mild method, none paid a cent till cured—we furnish their names on application.

**DR. THORNTON & MINOR, 1007 Oak St., Kansas City, Mo.**

near shall cause the highway or section thereof therein described to be mapped both in outline and profile. He shall then indicate how much of said highway or section may be improved by deviation from the existing lines whenever it shall be deemed of an advantage to obtain a shorter or more direct road without lessening its usefulness, or whenever such deviation is of advantage by reason of lessened gradients. He shall also cause plans and specifications of such highways or sections thereof to be thus improved to be made for telford, macadam, or gravel roadway, or other suitable construction, taking into consideration the climate, soil, and material to be had in the vicinity thereof and the extent and nature of the traffic likely to be upon such highway, specifying, in his judgment, the kind of road a wise economy demands. Improved or permanent roadways of all highways so improved shall not be less than eight feet nor more than sixteen feet in width, unless for special reasons, to be stated by such engineer, it is required that it shall be of greater width.

Sec. 7. Upon the completion of such maps, plans, and specifications, the State Engineer shall cause an estimate to be made of the cost of construction of the same, and transmit it to the county judge of the county from which said petition proceeded, together with a certified copy of such maps, plans and specifications, and a certificate of approval by the Board of a highway or section thereof so designated as aforesaid.

Sec. 8. The county judge shall then without delay notify said petitioners by letter and publish a notice in a newspaper of the granting of said petition, and that he has the plans and specifications of said proposed improvement at the office of the county clerk for inspection. Within ninety days after the giving of said notice the said petitioners shall place in the county treasury to the credit of said road, subject to the orders of the county judge, as hereinafter provided, 15 per cent of the engineer's estimated cost of constructing or improving said road, after making due allowance and deduction therefrom for such sum as may be allowed said petitioners under Section 12 of this act for such improvement out of the county road tax fund of the road district in which said road or section thereof may lie, as well as for the deposit of \$50 provided for in Section 1 of this act.

Sec. 9. Within ten days after the said 15 per cent has been secured by said petitioner as hereinbefore provided, the county judge shall certify to the State Engineer that the portions of the said estimated cost required of the county and of the petitioners are available and that the work is ready to proceed.

Section 10. Upon the receipt of such notice from the county judge such State Engineer shall advertise for bids for two successive weeks in a newspaper published in the county seat of such county, and in such other newspaper as shall be deemed of advantage, for the construction of such highway or section thereof, according to such plans and specifications and, and award such contract to the lowest and best responsible bidder, and he may in his discretion, and that of the county judge, award the contract to the county or to some board of persons acting officially for the county or road district in which said improvement may lie; but no contract shall be awarded at a greater sum than the estimate provided in Section 7. But if no bid otherwise acceptable be made within such estimate, such State Engineer may amend his estimate and certify the same to the county judge, and upon the deposit of any additional sum necessary to make 15 per cent of such amended estimate, proceed anew to obtain bids and award the contract as herein provided, and before entering in any contract for such construction they shall require a bond with sufficient surety, conditioned, that, if the proposal shall be accepted the party thereto will perform the work upon the terms proposed and within the time prescribed and in ac-

cordance with the plans and specifications; and as a bond of indemnity against any direct or indirect damages that shall be suffered or claimed during the construction of such road and until the same is accepted, and the State of . . . . ., and the particular county or road district shall in no case be liable for any damages suffered. Partial payments may be provided for in the contract and paid in the manner herein provided when certified to by such State Engineer to an amount not to exceed 80 per cent of the value of the work done, 20 per cent of the contract price being retained until the entire work has been accepted. Such State Engineer shall have some competent person to superintend and have engineering supervision of such work.

Sec. 11. One-half of the expense of the said construction shall be paid by the State Treasurer upon the warrant of the Auditor, issued upon the requisition of such engineer out of the appropriation made to carry out the provisions of this act, but no such construction or improvement shall be undertaken in any one year the cost of which with other such work previously done or undertaken shall exceed the amount appropriated for that year under the provisions of this act. And 35 per cent of the expense of such improvement shall be a county charge and shall be paid out of the general fund of said county after presentation and allowance in the same manner as is provided for the filing and allowance of other claims against the county, but such claims shall first have been approved by the State Engineer; and the remaining 15 per cent shall be paid upon the order of the county judge out of the fund deposited for that purpose as hereinbefore provided.

Sec. 12. The construction and improvement of highways or of sections thereof under the provisions of this act shall be taken up and carried forward in the order in which they are finally designated as determined in each case by the date of the receipt by such engineer as hereinbefore provided, of the copy of the petition provided in Section 4.

Sec. 13. Upon the completion of such highway or section thereof and the acceptance of the same, and after payment has been made as herein provided, the State Engineer shall inform the county judge of such county that the highway or section thereof designated has been constructed and notify him that such highway shall be accepted by him, and thereafter said road shall be maintained by said county at its own expense or at the expense of the road district as provided by law.

Sec. 14. Officers who are now or may hereafter have by law the care or supervision of public highways and bridges shall from time to time upon the written request of the State Engineer furnish him with all the available information in connection with the building and maintenance of public highways and bridges in their respective localities.

Sec. 15. No street railroad shall be constructed upon the portion of a highway which may be improved under the provisions of this act, except upon the consent of and under such conditions and regulations as may be prescribed by the State Engineer.

Sec. 16. To enable this law to become immediately effective, there is hereby appropriated out of the general funds of the State Treasury not otherwise appropriated the sum of . . . . .

Sec. 18. That in the event of the enactment of a law by the United States Congress, providing for governmental aid in building and improving highways and roads in the several States, the sum or sums to which . . . . . may be entitled under the provisions of this law, shall be expended in this State, pursuant to said law and under the general supervision of the State Engineer, in conjunction with the engineer or officers provided by the United States Government, upon the more public and important roads and highways of the State.

## To Farm Dairymen:



We told you three years ago that the man who shipped his cream direct to some good, reliable firm would realize more out of his product than he could in any other way.

We were right then, and we are right now when we tell you we will put a larger check into your hands each month for your product, than any other concern can do.

Write for shipping tags.

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We sell the world-renowned  
**EMPIRE CREAM SEPARATOR.**

### Blue Valley Creamery Co.,

ST. JOSEPH, MO.

#### Hail at Anness.

EDITOR KANSAS FARMER:—On Wednesday afternoon, May 25, this vicinity was visited by a terrific wind, rain, and hail storm, totally destroying the wheat on a tract a mile wide, and badly damaging the wheat for a half mile on each side of its path. Oats are badly damaged, gardens almost ruined, and fruit totally destroyed. I can not give the exact damage of the storm for I do not know how far east it extended, but I know that for fifteen miles it passed through as good a wheat country as there is in Southern Kansas, destroying thousands of acres of wheat that gave promise of yielding from 20 to 35 bushels per acre. Conservative men estimate 60,000 bushels destroyed that was tributary to the little town of Anness. The hail stones averaged about like quail eggs with plenty of them like small hen eggs. There is scarcely a house in its path but what needs more or less window-light repairing.

Very few farmers had their wheat insured. It has been twenty-four years since this locality was visited by a similar storm. H. D. COMPTON.  
Sedgwick County.

#### DESIRABLE CLUBBING OFFERS.

Every owner of live stock should have at hand a convenient authority by which to diagnose the various ailments to which animals are subject. Dr. Mayo's book entitled "The Care of Animals," is so plain in its descriptions and so modern and so sensible in its directions as to enable the stockman to do the right thing promptly, or to determine whether the case is one requiring professional skill. This book is just such as has long been needed by the owner of animals. The retail selling price of "The Care of Animals" is \$1.25. By a special arrangement with the publishers, the KANSAS FARMER is able to offer the following advantageous clubbing proposition:

One subscription for Kansas Farmer, or one "Block of Two" . . . . .	\$1 00
One "Care of Animals," by mail . . . . .	1.25
<b>Total . . . . .</b>	<b>\$2.25</b>
Club-rate for the above . . . . .	1.90

Another book of great interest to farmers and those who contemplate becoming farmers, and to all others who like to keep up with modern methods of high-grade farming, is "The Fat of the Land." This new book is having an immense sale. With it the KANSAS FARMER is able to offer the following clubbing proposition:

One subscription for Kansas Farmer, or one "Block of Two" . . . . .	\$1 00
One "Fat of the Land," by mail . . . . .	1.50
<b>Total . . . . .</b>	<b>\$2.50</b>
Club-rate for these . . . . .	2.25

#### Questions on the Stray Law.

EDITOR KANSAS FARMER:—What is the law on posting stock? How soon must noticed be posted after taking up animals? How much per diem are we allowed for feed and care in winter-time? O. O. O.  
Jefferson County.

## THE STRAY LIST.

### HOW TO POST A STRAY.

#### THE FEES, FINES AND PENALTIES FOR NOT POSTING.

BY AN ACT of the Legislature, approved February 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to forward by mail, notice containing complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker-up, to the KANSAS FARMER, together with the sum of 50 cents for each animal contained in said notice. And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper, free of cost, to every County Clerk in the State, to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5 to \$50 is affixed to any failure of a Justice of the Peace, County Clerk, or proprietors of FARMER for a violation of this law.

Broken animals can be taken up at any time in the year.

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

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken up, shall come upon the premises of any person, and he falls for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

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

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

The Justice of the Peace shall within twenty days from the time such stray was taken up (ten days after posting) make out and return to the County Clerk, a certified copy of the description and value of such stray.

If such stray shall be valued at more than \$10, it shall be advertised in the KANSAS FARMER in three successive numbers.

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

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker-up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker-up; said appraisers, or two of them, shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the taker-up may have had, and report the same on their appraisement.

In all cases where the title vests in the taker-up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of the stray, one-half of the remainder of the value of such stray.

Any person who shall sell or dispose of a stray, or take the same out of the State before the title shall have vested in him, shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of \$20.

When writing advertisers please mention this paper!

## In the Dairy

### How to Build up Dairy Herds.

The advice below is by Henry E. Alvord, Chief of the Dairy Division of the Bureau of Animal Husbandry, and is most excellent advice from a very capable and practical man:

A dairyman can hardly be advised to buy at once a full stock of thoroughbred cattle of any kind, if his sole object and dependence of profit is to be the dairy product of the herd. Such a venture will necessitate large investment, and should include the breeding of registered animals, for sale at remunerative prices, as a part of the business. Well-bred and well-selected grade cows of the line of blood desired seem to be the most profitable animals for the practical dairyman, or at least the best to begin with. If enterprising and progressive, the owner will hardly be content with grades only. He may begin with only his bull pure bred; presently he will want a registered cow to match, then one or two more. Thus he will be steadily and properly working toward a pure-bred herd. If the breed chosen is the right one for the object sought, it will soon be found that the more of this blood the herd contains the better. Starting with half-bred cows (the offspring of pure-bred bulls and dams of mixed or uncertain blood), the next grade, three-fourths pure, will prove better dairy stock, if the bull is what he should be and the increase has been culled. Another step higher is better still, better for the dairy, and so the grading goes up and improvement goes on until the blood of the herd is practically pure. The best dairy results may thus be reached, but the herd has a taint. It lacks pedigree. Its increase, however excellent in dairy performance, must pass and sell as grades. The owner feels this, and is pretty sure to gradually replace his well-bred cows, almost pure-bred, with fully pedigreed and registered animals. This end is reached sooner and easier by starting with one or two registered females, and, of course, a registered bull. Moderate investment and the lessened risk of loss in the hands of one unaccustomed to handling registered stock, and finding a market for the surplus, doubtless favor grades for the dairy herd. The argument and the probabilities of success, based upon the fixed principles of breeding, are on the side of pure-bred registered stock. In the hands of experienced men the latter prove the more profitable in actual practice.

In these days any dairyman who wants registered animals of any of the approved breeds can get them if he will but make the effort. The beginner in registered dairy stock can not be too strongly urged to buy and breed on the basis of individual and family merit and dairy record, and not upon pedigree alone. Pedigree is of value and should be well studied; it is the best guaranty that the calves to come will make good cows. But the pedigree should be supported by uniform excellence in the family and by evidence of merit in the particular animals bought. Although the investment is greater, there is greater certainty of good results if mature cows are bought which show what can be expected of them, if they have not already made a record, than if calves or undeveloped heifers are selected. It is also economy, having chosen the right breed, to purchase good representatives of that breed, rather than be content with only average or even ordinary animals. Successful dairying has proved that the greater profit comes from the best cows, whatever their kind. This is as true of pure-bred or registered stock as of common cows. It is better to pay \$300 for three excellent cows than to pay the same sum for four good cows or five which are only fair. A really superior dairy-cow of a superior family, with pedigree which gives assurance of calves equal to the dam, if not better, is always worth a large price. Such an animal adds much to the average value of any dairy-herd. In buying

registered cattle deal only with men of reputation as breeders and of strict integrity. "The best part of a pedigree is the name of the breeder."

### Skim-Milk for Paint-Making.

A use to which skim-milk, sour milk, buttermilk, or even whole sweet milk is often put is paint-making, yet this product of the dairy, says the Scientific American, makes possibly one of the most enduring preservative, respectable, and inexpensive paints for barns and outbuildings. It costs little more than whitewash, provided no great value is attached to the milk, and it is a question whether for all kinds of rough work it does not serve all the purposes and more of the ready-mixed paint, or even prime lead and paint mixed in the best linseed oil.

It is made as follows, and no more should be mixed than is to be used that day: Stir into one gallon of milk about three pounds of Portland cement and add sufficient Venetian red paint powder to impart a good color. Any other colored paint powder may be as well used. The milk will hold the paint in suspension, but the cement, being very heavy, will sink to the bottom, so that it becomes necessary to keep the mixture well stirred with a paddle.

Six hours after painting this paint will be as immovable and unaffected by water as a month-old paint.

It is a splendid preservative, and I have known buildings which were painted twenty years ago in this manner, in which the wood was well preserved. Whole milk is better than skim-milk, as it contains more oil and this is the constituent which sets the cement. With the addition of a small quantity of crude carbolic acid it makes a fine disinfectant and is in every way suitable for dairy work.

### Buttermaking from Separator Cream.

Having used a centrifugal separator for nearly five years, we will give our method of handling the cream for home buttermaking. We use three-gallon tin cans for the cream and each run of cream is allowed to cool and the animal heat allowed to pass off before adding it to that already in the can. We churn regularly Tuesdays and Fridays, with seven skimmings to each churning. In cold weather about eighteen hours before churning day we add about one pint of buttermilk from the last churning, as a starter, and then set the cream can in a large vessel like a dishpan, containing moderately hot water. We then gradually raise the temperature of the surrounding water at 75° or 80°, stirring constantly with a wooden paddle, and then set in a warm place till the next morning, but stir frequently. In the morning it will be found to be nicely ripened, with a mild acid flavor and will pour from the can to the churn smoothly, like oil. Butter made from cream thus treated will have fine flavor and good keeping qualities. Thus the ripening process is forced by a starter in winter.

We only churn twice a week in summer, but retard the ripening process by keeping the cream vessel in a cool place. We use no ice, but swing the cream vessel into a chamber in the wall of the well, where the temperature is usually about 55°. The use of ice would be more convenient, but that we do not have. No starter will be needed as it will usually ripen sufficiently in the well by the regular churning time, but if it seems a little slow we place in the cellar, where the temperature is not so low, for a few hours. Churn at about 66° in winter and 58° to 60° in summer. A dairy thermometer is as necessary as a churn in order to make a uniform product.

Under the old crock-and-pan system this process could not be followed on account of so many vessels to handle and the churning would therefore come at irregular intervals and often at inopportune times, or the butter be ruined even before it is churned by these delays.

By the use of the cream-separator we have saved from \$8 to \$10 per cow over the shallow-setting plan, as showed by actual test by weight for six weeks previous to ceasing the old plan and a like period under the new.—A. F. Liggett, in Farmers' Call.

# DE LAVAL CREAM SEPARATORS

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Merely using as much of the older De Laval construction as expired patents permit, and which has been almost entirely superseded by later and still protected improvements in the up-to-date De Laval machines of the present time.

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Miscellany

Dead Cattle, the Agricultural College, and the State Veterinarian.

A good deal of anxiety has been caused in Saline and Ellsworth Counties on account of the sudden death of a considerable number of valuable cattle. There has also been some feeling with regard to the position of the State Agricultural College and Experiment Station with reference to the matter. A letter from Mr. J. W. Kraft, of Salina, inclosing some newspaper clippings, was sent to the KANSAS FARMER, giving expression to considerable dissatisfaction at the attention the case had received from the authorities. The matter seemed to the editor to be of such importance as to require an official answer from the head of the College. Mr. Kraft's letter and the clippings were therefore referred to President E. R. Nichols, who makes the following reply:

Manhattan, Kans., May 26, 1904.

EDITOR KANSAS FARMER:—In your favor of the 24th instant you enclosed the following letter and newspaper clippings with the request that I reply to the same through the KANSAS FARMER, which I am pleased to do.

MR. KRAFT TO THE KANSAS FARMER.

Salina, Kansas, May 20, 1904.

Editor Kansas Farmer:—Some time ago I sent a sample of stock-food, with directions for its use, also maker's name, to the State Agricultural College for an analysis. The stuff had been sold in large quantities over this county, and people who bought it had no way of finding out if it had any merits or not. Mr. Willard, the chemist, wrote me a very nice reply to my request, and informed me that it would only be a personal matter and would not be worth while for what it would cost me.

Last week, Mr. J. E. Putnam, of this place, sent a portion of a stomach of an animal that died from some unknown cause, to Dr. Mayo and requested an analysis. Mr. Putnam lost about \$1,000 worth of cattle. Now, Mr. Editor, I have been reading so much about the Kansas State Agricultural College in your paper, and I am sure I don't know what this institution is for. I have inquired of others, but no one around here seems to know, even our newspaper men seem to be ignorant of what this college is for. Mr. Putnam received about the same reply to his request that I did. Now, it does seem to me, if a man loses almost a whole herd of cattle in one night that the State should take some interest in trying to determine the cause. Please print my letter in your paper, also tell us what we can expect of this board.

Yours truly,  
J. W. KRAFT.

THE NEWSPAPER CLIPPINGS ENCLOSED BY MR. KRAFT.

THAT'S THE QUESTION.

The People of Kansas Would Like to Know What the Board is for.

A Saline County man lost thirty-three head of cattle by a mysterious poison, and asked the State Sanitary Board to investigate the matter by making an analysis of a stomach. The board refused, saying it did not have time. There is a widespread ignorance in Kansas of what the board actually does. If it has any reason for existing it ought to get into print and say so. It seems to refuse most of the things asked of it.

REFUSED TO MAKE ANALYSIS.

Part of a Stomach from Dead Stock Sent to Chemist.

Says it is Not State's Duty.

Wants Pay for Analyzing Stomach. Is Loss of Stock by Unknown Causes Subject for State?

J. E. Putnam sent a portion of the stomach of one of the animals that died from an unknown cause last week, on the Putnam farm at Terra Cotta, to the State Veterinarian, Dr. Mayo, at Manhattan. It was sent by Dr. Mayo to J. T. Willard, his chemist at the Agricultural College, for analysis. Mr. Putnam received a letter from Professor Willard to Dr. Maxwell yesterday, stating that he could not analyze everything that came to him from private parties without a fee for the work. He said the making of the analysis was not a part of his duty, and that the analysis would only satisfy Mr. Putnam's curiosity. The letter was addressed to Dr. Maxwell and shown to the Union reporter.

If the death of over a thousand dollars' worth of cattle by a citizen of Kansas, from some unknown and unusual cause, is not a matter for the State Veterinarian to investigate and make a part of his duties and his chemist, we would like to know what it is. It is generally understood that death by unknown causes, or the appearance of some unusual disease among stock, is a proper subject for investigation by the State Veterinarian. He is hired by the State for this very purpose, and his chemist, who is also hired by the State, is his proper assistant in the matter.

When so serious a matter as the loss of a herd of cattle occurs by some unusual cause, it is not a private matter, and at once becomes a subject for the State authorities. Neither should the State chemist, who does the analyzing for the State Veterinarian, demand an extra fee for doing the work which is given him to perform.

A member of the State Sanitary Board ordered Dr. Mayo to proceed to an in-

vestigation of the death of the Putnam herd of cattle as soon as the Board was apprised of the case, and why should the State Chemist demand extra fees for the work, or deny that it was a part of his duty when the material was sent to him for analysis?

The causes of the death of these cattle interests the whole State, and is not a private matter, uninteresting to other citizens, and it is to be hoped that the case will be pressed to the attention of those whose duty it is to investigate.

The following letter from Mr. Kraft, dated February 6, was received by me and referred to Professor Willard, director and chemist of the Experiment Station:

Salina, Kansas, Feb. 6, 1904.  
State Agricultural College,  
Manhattan, Kansas.

Gentlemen:—I mail you today a sample of "Raybert's Poultry Mixture," which I wish you would have your chemist examine and advise me if it has any merit as a poultry food. Also, if it shows any ingredients for roup or cholera. Thanking you very much for your trouble and favor, Very truly yours,  
J. W. KRAFT.

Professor Willard's reply was as follows:

Manhattan, Kansas, Feb. 9, 1904.

Mr. J. W. Kraft, Salina, Kansas.  
Dear Sir:—Your letter and the sample of Raybert's Poultry Mixture are at hand. It would not be practicable to make an analysis of the mixture so as to determine of what it consists. An analysis could be made treating it as a food, but I doubt if it would be worth your while to go to the expense of having this done. We would not be able to do it without charge, as in my judgment it would be of only private advantage to you, and of doubtful value even on that point. Whether it contains anything that would prevent roup or cholera would be beyond the power of any chemist to tell. In my opinion, it is better for poultrymen to use staple articles of known nature as food, and if their poultry require medicine to give such as the particular ailment requires. Yours truly,  
J. T. WILLARD.

On the 30th of April the following letter was received from Mr. Putnam and promptly referred to the Veterinary Department:

Salina, Kansas, April 29, 1904.  
E. R. Nichols, Prest. State Agri. College,  
Manhattan, Kansas.

Dear Sir:—Will you kindly advise me as to what procedure is necessary in order to have the State Veterinary Surgeon examine a bunch of cattle owned by me just over in Ellsworth County, which evidently have been poisoned. I was informed last night by 'phone that one was sick, and then this morning that twenty-six head were dead. The men on the place state that the cattle froth at the mouth and lay with their noses on the ground, moaning as though in severe pain. The cattle for the past four days have been running on ground which was in Kafr-corn last year. A portion of this Kafr-corn was injured by the chinch-bugs to such an extent that it was not all cut, and it is possible that this may be at the bottom of the trouble, as I have been informed by some that a poisonous fungus growth will appear on Kafr-corn stalks in the field, though I have frequently pastured land of this kind and never lost any stock. This is the only thing to which I can attribute the loss of the cattle, unless they were poisoned, which does not seem possible. There were about one hundred head of cattle in the bunch, of which eighty-two head were high grade Galloways, and about twenty head of ordinary native stock. Of the cattle killed twenty-two were Galloways and four natives. Any information that you can give me on the matter will be thoroughly appreciated. I would like to have the Veterinary Surgeon examine them so as to be satisfied beyond any possible doubt that death was due to the Kafr-corn. Yours truly,  
J. E. PUTNAM.

Dr. Mayo telephoned Mr. Putnam on receipt of this letter. Mr. Putnam said that Dr. Maxwell had investigated the case and that it would not be necessary for Dr. Mayo to go.

The following telegram from Hon. M. C. Campbell, chairman of the State Live Stock Sanitary Commission, and also his letter to the Putnam Investment Company, shows the attitude of the commission regarding this matter:

Live Stock Sanitary Commission.  
Wichita, Kansas, April 30, 1904.  
Putnam Investment Co., Salina, Kansas.  
Gentlemen:—If you know the writer of the enclosed letter, have him call Dr. Mayo, Manhattan. He is now at home. If trouble is still in existence, call the doctor to investigate the matter. This will be your authority for so doing.  
Yours truly,  
M. C. CAMPBELL.  
TELEGRAM.

Dr. N. S. Mayo, State Veterinarian,  
Manhattan, Kansas.  
Call by telephone Putnam Investment Co., Salina. If cattle still sick go and investigate.  
M. C. CAMPBELL.

Salina, Kansas, May 1, 1904.  
Dr. N. S. Mayo, Manhattan, Kansas.  
Dear Sir:—We sent you by express a jar containing recticulum, and contents, of one yearling Angus heifer, one of the thirty-three head that died during the night of April 29 and morning of April 30. I was called to the Putnam Brothers' ranch in Ellsworth County at Terra Cotta, to investigate the cause of the death. When I arrived at the ranch, twenty-seven miles west of here, yesterday morning at 6 a. m., I found thirty-three dead and one sick animal. Temperature of sick animal was 96½° F. Respiration 10. Pulsation 36, weak and and soft. Angus very much inflamed. Nostrils running and

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We will sell you a Sharples Tubular, guaranteed to make enough more butter than the other from the same milk to pay 25 per cent yearly dividend on the whole cost of the machine. You test them side by side.

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Every day of KIDNEY diseases which the family doctor over-looked until too late. Send me a sample of your morning urine and I will tell you all about your kidneys free of charge. Send four cents for mailing case and bottle for urine. Address J. F. SHAFER, M. D., Water Doctor, 216 Penn. ave., Pittsburg, Pa.

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There are seven main features of heart disease, viz.: (1) Weakness or Debility; (2) Rheumatism or Neuralgia; (3) Valvular Disorder; (4) Dilation; (5) Enlargement; (6) Fatty Degeneration; (7) Dropsy.

Documentary evidence will prove thousands of so-called "incurables" have been absolutely cured by Dr. Miles' New Heart Cure.

Patients often have no idea their disease is heart trouble, but ascribe it to Indigestion, Liver Complaint, etc.

Here are some of the symptoms: Shortness of breath after exercise. Smothering Spells. Pain in Chest, left Shoulder and arm. Discomfort in Lying on one side. Fainting Spells. Nervous Cough. Swelling of Feet and Ankles. Paleness of Face and Lips. Palpitation. Nightmare. Irregular Pulse.

"I have great faith in Dr. Miles' New Heart Cure, and speak of its merits whenever opportunity presents. I can now go up and down stairs with ease, where three weeks ago I could hardly walk one block." One year later—"I am still in good health; the Heart Cure did so much for me, that I find it a far greater medicine than you claimed it to be."—S. D. YOUNG, D. D., 697 North Pine St., Natchez, Miss.

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FREE Write us and we will mail you a Free Trial Package of Dr. Miles' Anti-Pain Pills, the New Scientific Remedy for Pain. Also Symptom Blank for our Specialist to diagnose your case and tell you what is wrong and how to right it. Absolutely Free. Address: DR. MILES' MEDICAL CO., LABORATORIES, ELKHART, IND.

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Some people learn quickly—see how others succeed—do as successful ones do. Here's an opportunity to learn what other farmers and dairymen think of

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And a chance to learn all about the machine for yourself. Let me show you the machine—take it apart—explain it—give you the opinion others have of it.

JOHN DEERE PLOW CO., KANSAS CITY, MO. DENVER, COLO. Cream Separator Department.

sore, showing an inflamed condition, not of the Schneiderian membrane, but of the mucous membrane lining floor of nostril; discharge was watery and rather whitish in color. Eyes were staring; animal was lying with nose a trifle extended; ears decidedly drooping. As soon as I approached animal immediately arose and charged me. She came with a staggering gait, apparently weak in whole muscular system. The feces dropped by sick animal were dry, small amount, and very dark in color "compared with those dropped by same herd during the day previous to sickness." The feces were very much composed of mucous. I gave sick animal a purgative of Magnesium sulfate 1/4 pound, sodium chloride 1/2 pound; caused urination, which was apparently normal, except there was an enormous amount. At 2 o'clock p. m. this animal seemed very much better.

I now will give you the results of post-mortem held on ten head.

Hearts, very black, showing through muscular portion.

Lungs, not all alike; mostly very much congested.

Liver, normal.

Kidneys, normal.

Spleen, normal.

Brain, very much congested, and in some seemed soft.

Stomach, mostly normal; some showed congestion.

Intestines, all showed extended inflammation.

Blood seemed to have particles of mucus floating in it.

Contents of stomachs seemed normal. Abomasas and masos were all exceedingly hard and dry. Recticulum, all very watery, containing some sand, maybe three tablespoons full. Muscular tissue through body, very pale in color.

History of cases, and symptoms of dying animals, obtained upon inquiry, as follows:

Thursday at 7 p. m. as man was coming from work, noticed one 2-year-old lying, drooping ears, showing signs of not feeling just right. Went on home, but noticed no more were sick. Friday, the following morning, at 7 a. m., found twenty-six dead cattle, and nine sick ones. By 10 a. m. seven of the sick ones were dead. One died the following night.

Symptoms: Would lie on sternum, let nose rest on ground; would moan a great deal, champing the jaws, froth at the mouth; in 15 to 20 minutes they would lie over, throw head as far back as possible, extend legs and tail, moan very loud, and die in about twenty minutes to an hour, but while lying down would at any time try to arise and charge any person coming up close to them.

These cattle had had no change in feed or in living habits for a week or more, except a load of hay they got on Thursday. Please analyze contents of jar to find, if possible, what caused death, and let me know as soon as possible.

Very truly,  
DR. HUGH S. MAXWELL, V. S.

Manhattan, Kansas, May 4, 1904.

Dr. Hugh S. Maxwell, Salina, Kansas.  
Dear Sir:—Yours of the first instant, to Dr. Mayo, and the specimens which you sent, have been turned over to me for attention.

It is quite impossible for us to undertake the analysis of all of the specimens people send us with that in view. Making such analyses is no part of our duty, and as we are extremely busy with our regular work, we can make outside analyses only when it seems that the time spent will be of considerable service, and if it is of only individual interest we make a charge covering the cost.

It is quite likely that your cattle have eaten some poisonous plant. We would not help you at all in this case by making an analysis. If, on the other hand, some one has poisoned your stock, an analysis by us, ascertaining what the poison is, would do nothing but satisfy your curiosity, unless you had evidence that would fasten the crime upon some one. I regret, therefore, to be obliged to say that we cannot make any analysis of the material you sent until we have further evidence that it would be a real service to you.

Yours truly,  
J. T. WILLARD.

Salina, Kansas, May 6, 1904.

Mr. J. T. Willard, M. S., Manhattan, Ks.  
Dear Sir:—Your favor of the fourth instant, to Dr. Hugh S. Maxwell, has been handed to me, owing to my being the owner of the cattle lost by poison on the 28th ultimo.

In reply, will say that the specimen was sent with a view of determining, if possible, the cause of the death of the cattle, as mine was, apparently, the greatest loss of the kind that has ever been known in this part of the country.

The stockmen and farmers of this section are much worked up over my loss, owing to there being many herds running on similar fields, and if it was a vegetable poison they wish to run no chances by keeping them there.

Personally, I feel that there is no question but the cattle died from eating some poisonous plant or growth contained in this field, as there were no indications whatever of poison by any other means.

At the time of sending the specimen, we assumed it would be a matter the State would want to look into, and I was authorized by M. C. Campbell to call upon Dr. Mayo to investigate the case, but as the doctor could not be reached in season to examine the cattle personally, Dr. Maxwell advised him as to the symptoms, sending the specimen for analysis.

However, as it appears the State does not make these analyses, I wish you would kindly advise by return mail the cost, and if it is not too high, I will stand the expense personally.

I am not doing this for my own personal satisfaction, but for the benefit that may be derived for the use of the stockmen and farmers of this locality.

Trusting to hear from you soon, I am,  
Yours truly,  
J. E. PUTNAM.

The Salina County Stockmen's Association.

Salina, Kansas, May 6, 1904.

Dr. Mayo, State Veterinary Surgeon, Manhattan, Kansas.

Dear Sir:—Since talking with you over the phone Saturday evening, regarding death of thirty-four cattle, caused from poison obtained in Kafir-corn stubble-field,

I learn that the stockmen and farmers, not only of this country, but also of Ellsworth County, are materially worked up over the case, and are unanimous in the feeling that it should be thoroughly investigated hoping thereby the cause may be determined and located, that trouble of the same kind may be guarded against in the future.

Personally, I am satisfied loss was due to some vegetable poisoning, and what the people want to know, if possible, is what this poison consisted of.

Therefore, if you could arrange to visit Salina I will make arrangements to have you taken to the ranch and will also have Dr. Maxwell accompany you. He made a careful examination of the cattle, and can give you minute description of the symptoms. I would like to have you go over the field occupied by the stock and try to find a cause for the death. If you can, it will certainly be of great benefit to the stockmen and farmers of that vicinity, as it is the principal stock section of the State.

I would like to accompany you myself, but was injured while making inspection of the cattle by being thrown from a buggy and have been confined to my bed ever since. However, this will not interfere with your receiving full information, as my brother, E. R. Putnam, of Terra Cotta, is the person who handled the stock.

If you will kindly advise me when you can be here, I will see that other matters are arranged.

I received a letter from M. C. Campbell, under date of the 30th ultimo, which authorizes you to make the investigation.

Trusting to hear from you soon in the matter, I am, Yours very truly,  
J. E. PUTNAM.

Dictated.  
E. B. P.

Manhattan, Kansas, May 8, 1904.

Mr. J. E. Putnam, Salina, Kansas.

Dear Sir:—Yours is at hand. It seems to me that the best way to investigate the cause of death of your cattle is first to have a thorough examination of the fields made, to ascertain, if possible, whether any poisonous plants are growing there. Some of these vegetable poisons are extremely difficult to detect under the circumstances, and we might work for two or three weeks without any positive results. I have just been telephoning with Dr. Mayo, and he has decided that it will be best for him to go out there and look into the matter of the possible occurrence of poisonous forage plants on the land. He will write or telephone concerning it if he has not already done so.

After that we can consider with more clearness the question of taking up a chemical examination of the material you sent. I am quite sure that for ascertaining what plants caused the death of the animals, if that were the cause, an examination of the range would be far preferable to any chemical analysis of the mixed contents of the stomachs of the animals. An animal's paunch is so large that it would be quite possible to send a sample that would not include any of the poisonous substance. I am anxious to do all that we can for you, and am willing to have the chemical work done that seems likely to be of real service. Concerning this we can decide later. Yours truly,  
J. T. WILLARD.

On Sunday, May 8th, Dr. Mayo, in consultation with Professor Willard, decided it would be best to make an investigation, and sent the following letter:

Manhattan, Kansas, May 9, 1904.

Mr. J. E. Putnam, Salina, Kansas.

Dear Sir:—Nothing unexpected preventing, I will reach Salina, Wednesday afternoon, May 11, to investigate the loss of your cattle. I have to make a trip west on the Rock Island first and if anything occurs I can not reach there on that train I will let you know by wire.

Yours truly,  
N. S. MAYO.

Thursday morning, May 12th, Dr. Mayo investigated the case, and is of the opinion that the cattle died of cockle-bur poisoning.

There have been complaints for years of cattle and hogs being poisoned by eating cockle-burs. At one time Professor Failyer made some experiments feeding cockle-burs to pigs. The pigs survived the test without apparent injury. Dr. Mayo has received a considerable number of letters this year regarding cockle-bur poisoning. It is quite probable that during the growth of the cockle-bur, there are transformations going on within the plant which generate poison at particular stages, but it would be practically impossible for a chemist to detect the poison, as it probably has never been isolated and its properties determined.

It is impracticable, if not impossible, to analyze many of the compounds that are sent out under the head of stock-foods. So far as I know the College has never refused to investigate any matter either of public or private interest where there seemed to be any show of success. In a case of purely private interest it certainly would be unwise to use the State's time and material without compensation, and we might even go a step farther and suggest that it might be unwise to draw upon the professor's private time and strength for such work, even though it were paid for.

E. R. NICHOLS,  
President Kansas State Agricultural College.

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OUR CATALOGUE SHOWS WHY  
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**Live Stock Auctioneer.**  
Experience, earnestness, and a general, practical knowledge of the business, are my principal reasons for soliciting your patronage. Write before fixing dates.  
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**The World's Fair Line**  
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Leave Kansas City 6:55, 8:00, 10:10 a. m., 11:10, 9:15, 11:00 p. m., and 12:05 midnight. Ask for your tickets via this line from Kansas City; if you miss one train you will not have long to wait for another.  
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**Texas Wants YOU.**  
**Cheap land in rich rice and sugar-cane district of Gulf Coast.**  
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Homeseekers and investors should investigate that part of Texas along the Cane Belt R. R.  
THE SANTA FE WANTS YOU to use its direct line to Texas. Low one-way and round-trip rates the first and third Tuesday of each month.  
Cut out this advertisement and mail it to me. I will send you facts worth knowing.  
  
T. L. KING, Ticket Agt.  
A. T. & S. F. Ry.,  
Topeka, . . . Kansas.

**Farming in Colorado, Utah, and New Mexico.**  
The farmer who contemplates hanging his location should look well into the subject of irrigation. Before making a trip of investigation there is no better way to secure advance information than by writing to those most interested in the settlement of unoccupied lands. Several publications, giving valuable information in regard to the agricultural, horticultural and live stock interests of this great Western section has been prepared by the Denver & Rio Grande and the Rio Grande Western, which should be in the hands of all who desire to become acquainted with the merits of the various localities. Write  
**S. K. HOOPER, G. P. & T. A.,**  
Denver, Colorado.

**GERMS KILLED—CANCER CURED**  
NO PAIN! NO SURGERY!  
Send Postal for 100-page Book, FREE, on the True Method of PERMANENTLY CURING CANCER WITH NO PAIN  
DR. E. O. SMITH, 2836 Cherry Street, KANSAS CITY, MO.

# The Poultry Yard

CONDUCTED BY THOMAS OWEN.

## Preserving Eggs.

While there is no known process that will keep eggs for any considerable time as good as they are when fresh, yet they can be kept so as to be marketable. Some people make money by buying eggs when they are cheap and keeping them till about Christmas or New Years, when they can at least double their money, if not treble it.

The cold storage method is the one most largely practiced, but this requires certain facilities out of the reach of the ordinary farmer. Besides it has its limitations, and when eggs are to be held for a considerable period the evaporation of the contents is so great that the old methods of preservation are considered both safer and better. Whatever the process employed, success can only be attained by observing the following rules: Only strictly fresh eggs can be preserved. Nothing can save a bad egg from getting worse, the longer it is kept. They should be taken before the very hot weather arrives and should be handled and selected with the utmost care. Eggs should not be allowed to remain in the nest too long or incubation will commence before they are packed away. In packing, the eggs should not touch one another, as one bad egg in contact with another will soon spoil the whole lot. The eggs of hens that have been kept separate from the roosters will keep much longer than those which have been fertilized. The eggs should be stored in a place where the temperature is even. A cellar is a good place, if not too damp. The more even the temperature the better the eggs will keep. Unfertilized fresh eggs, put in a cool, dark place and turned half over every other day should keep four or five weeks in good condition without further preparation.

One method of preserving eggs is to dip them in a strong solution of lime and water, so that the whole surface of the shell is coated. After they have dried they should be put where they can be turned readily. Another way is to pack the eggs in salt and place them in boxes or barrels. The eggs should be placed on end and so packed that they do not touch each other. Finely sifted coal ashes may be used instead of salt. Some people preserve eggs by greasing them all over with a mixture of twenty grains Salicylic acid in one gill of cottonseed oil and turning them every other day. All these methods, with numerous others, are successfully used by many persons, but the safest process, and that most generally recommended by egg dealers, is liming. To preserve eggs by this method requires one bushel of pure stone lime and two quarts of clean salt to sixty gallons of water. The stronger the lime water, free from sediment, the better it is. Slake the lime with a portion of the water, then add the balance of the water and salt. Stir well three or four times at intervals, and then let it stand until well settled and

cold. Either dip or draw off the clear pickle into the barrel in which it is intended to preserve the eggs. When the barrel is filled to a depth of fifteen or eighteen inches, put in eggs about one foot deep, spread over them some pickle that is a little milky in appearance, made so by stirring up some of the very light lime particles that settle last, and continue doing this as each foot of eggs is added. When the eggs are within four inches of the top of the barrel, cover them with cloth and spread on two or three inches of the lime that settles in making the pickle. It is of the greatest importance that the pickle be kept continually up over this lime. When the time comes to market the eggs they must be taken out of the pickle, cleaned, dried and packed.

Another method that has been tried and given better results than most anything else is a solution of what is generally known as water glass. Eggs preserved by this process have been kept for over a year and found to be almost as good as fresh eggs.

## Poultry Profits.

A reader in Maine wants to know how I made fifty-five hens pay \$3.31 each in one year. I think it was chiefly by giving them the best of care. At the close of the season I found that sales of eggs were seven hundred and one dozens, amounting to \$98.14. Seven hundred and thirty-six chickens were sold for \$250.24. The bill for feed amounted to \$166.33. It cost 82 cents a head to feed the hens one year. It does not cost many farmers half that, because they have a large range, and the hens pick up a large part of their living from what otherwise would go to waste. But in caring for fowls one must calculate to feed liberally when feed is needed, if he wants eggs. Most of the sitting hens were set twice in succession, sitting six weeks instead of three, and all infertile eggs were tested out about the tenth night. If a hen has infertile eggs under her, she generally pokes them into the middle of the nest as the hatch progresses, because they are not so warm as eggs with chicks in them; and bad eggs in the middle of the nest means good eggs around the outside, where they are most likely to get chilled, the chick weakened and its advent into the world set back a day or so. Then, chickens should be sold as soon as they are large enough to sell. I have sold them at three-fourths-pound weight for 25 cents apiece, and pound and two-pound weights at the same price. The sooner one can sell a chick after it is hatched, the more profitable it is, providing he gets a fair price for it. Twenty-five chickens sold at a pound weight means a saving of about two chickens—sometimes half a dozen—for some accident or ailment is almost certain to get away with at least two out of twenty-five before they reach a two- or three-pound size, and sometimes one loses one-third to one-half of them by storm or vermin unless his arrangements for the prevention of such losses are perfect. In raising chickens, the two necessities most generally neglected are water and grit. Chickens must have an abundance of both from the first time they are fed until they are sold. Grit is teeth to them, and if it is not lying in or near the yard in the form of gravel, it must be provided. So far as I can see, there is very little difference in the various kinds of grit offered for sale. I would just as soon have a load of common gravel for the fowls to pick at as the most expensive grit on the market. But I believe in shell. Some poultrymen contend that hens can not make egg-shells from the lime in oyster-shell, but I am satisfied they are mistaken. Unless I provide plenty of oyster-shell for my hens, I get thin and soft-shelled eggs. A hen that is not laying will eat very little, if any, shell, while the hen that is laying will eat lots of it. Another thing, unless hens have an abundance of pure water they will not lay; in fact, they can not, because about 74 per cent of the eggs is water, and they must have the water to make the egg. Unless little chickens have plenty of pure water they will not do well. They need it to

help digest their food properly. It must be pure, or liver disease is almost sure to develop, and they will die off at a rate that will cut out all prospects of profit. Overfeeding and lack of pure water cause nine-tenths of the so-called cholera that devastates the poultry-yards all over the country.—Mr. Grundy, in Farm and Fireside.

## Poultry at the World's Fair.

The committee of the American Poultry Association appointed to look after the receiving, cooping, feeding, exhibiting and returning of the ten thousand birds expected at the Universal Exposition at St. Louis next fall report satisfactory progress.

The gentlemen composing the committee are noted for their patriotic devotion to the best interests of the poultry industry, and can be depended upon to wisely and economically discharge the duties assigned them by the American Poultry Association.

The following copy of a recent letter, sent by the committee to the secretary of the live-stock department of the Universal Exposition, will be read with interest by prospective exhibitors of poultry at the World's Fair:

"St. Louis, May 15, 1904.  
"Col. Charles F. Mills, Secretary Live-Stock Department, St. Louis, Mo.

"Dear Sir:—I have the honor to report that the committee appointed by the American Poultry Association to assist the Universal Exposition of 1904 in receiving, cooping, exhibiting and returning the poultry, pigeons, and pet stock have been actively at work perfecting arrangements for the duties assigned them and can report very satisfactory progress.

"The prospects are encouraging for the early completion of very advantageous arrangements with Spratt's Patent of New York for the cooping of the World's Fair exhibits of poultry, pigeons, and pet stock. The committee in figuring on the number of cages that may be required, have arranged to have a sufficient number on hand to meet every possible contingency. The committee have received such unanimous assurance of hearty and cordial support, from prospective exhibitors, as to leave no room for doubt as to the great extent and high character of the show of poultry, pigeons, and pet stock that may be expected at the World's Fair.

"If every cage and coop contracted for is taken up by exhibitors, it is likely that when all expenses are paid and a reasonable allowance made to the committee for their services, a surplus will remain, and this committee hereby recommend that such surplus be distributed pro rata as additional premium money for poultry, pigeons, and pet stock.

"Your committee further suggest that this announcement be published in the final prize-list of the live-stock department.

Very respectfully,  
HENRY STEINMESCH,  
T. F. MCGREW,  
U. R. FISHEL,  
Committee.

## ROCK ISLAND SYSTEM.

### Through Tourist Sleepers to California

Rock Island Tourist Sleeping Cars are fully described in our folder, "Across the Continent in a Tourist Sleeper." Ask for a copy. It tells the whole story—describes the cars in detail; names the principal points of interest en route; shows when cars leave Eastern points, and when they arrive in California. A. E. Cooper, D. P. A., Topeka, Kans.

To test the mosquito theory of malaria, two French physicians propose to be bitten by mosquitoes fed on an ague patient, and to allow any fever contracted to run its full course without treatment.

## POULTRY SUPPLIES

- Thanolice (lice powder).....25c
- Creo-carbo (lice killer).....50c
- Egg Maker.....25c
- Poultry Cure.....25c
- Roup Pills.....25c
- Medicated Nest-eggs.....5c
- Conkey's Roup Cure.....50c
- Buckeye Cholera Cure.....35c

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520 KANSAS AVE., TOPEKA, KANS.

## POULTRY BREEDERS' DIRECTORY.

PUREB. C. B. Leghorn eggs, 30 for \$1; 100, \$3. F. P. Flower, Wakefield, Kans.

BLACK LANGSHAN eggs, \$2 per 15 from scored hens, and \$1 per 15 from unscored hens. Mrs. Geo. W. King, Solomon, Kans.

NEOSHO POULTRY YARDS, Established 1882. Breeder of Rose Comb R. I. Reds and Buff Arpingtons, scoring from 91% to 94% points, by Atherton. Eggs the balance of the season, \$1 per 15. Stock for sale after July 1. J. W. Swartz, Americus, Kans.

BLUE BARRED PLYMOUTH ROCK EGGS; 2 pens fine birds; \$1 per 15. Mrs. J. C. Leach, Carbondale, Kans.

INDIAN RUNNER DUCKS and White Wyandottes—Prize-winning stock; bred for utility; 15 eggs, \$1.50. Will exchange for turkey eggs. L. D. Arnold Salina, Kans.

PLEASANT VIEW POULTRY FARM—White Wyandotte eggs for sale, 5 cents each. S. Balley & Wife, Route 3, Independence, Kans.

S. C. BROWN LEGHORNS, exclusively. Eggs for sale from healthy, free-range stock. Satisfaction guaranteed. J. A. Kaufman, Abilene, Kans.

B. P. ROCK EGGS—\$1.50 per 15; \$5 per 100; free range. Collic pupa. W. B. Williams, Stella, Neb.

C. C. W. Leghorns, eggs 50 cents per setting, \$3 per 100. Martha Cook, Russell, Kans.

WHITE WYANDOTTE EGGS—For sittings, 15 for \$1. Walter A. Smith, 109 East Tenth St., Topeka, Kans.

BLACK MINORCAS—Biggest layers of biggest eggs. Fertile eggs for hatching, \$1.50 per 15; \$3 per 50; \$5 per 100. Also Light Brahmas, Black Langshans, Barred and Buff Plymouth Rocks, White, Silver and Golden Wyandottes, S. C. Rhode Island Reds, S. C. White and Brown Leghorns, American Dominiques, Houdans, White Crested Black Polish, Buff Laced Polish, Buff Cochins Bantams. Eggs from choice matings of above \$1.50 per 15. James C. Jones, Leavenworth, Kans.

FOR SALE—Eggs from Rose Comb Brown Leghorns, Silver Spangled Hamburgs, Barred Plymouth Rocks, White-faced Black Spanish, and Black Langshans. Write your wants. Charles W. Gresham, Bucklin, Kans.

RHODE ISLAND REDS—Original stock from the east, the best general purpose fowl on earth. Eggs \$1.50, per 15; \$2 per 30. Mrs. G. F. Kellerman, Vine-wood Farm, Mound City, Kans.

WHITE HOLLAND GOBBLERS—From first prize stock, \$4 each. E. W. Melville, Eudora, Kans.

SCOTCH COLLIE PUPS—Four more litters of those high-bred Collies, from 1 to 3 weeks old, for sale. Booking orders now. Walnut Grove Farm H. D. Nutting, Prop., Emporia, Kans.

BARRED Plymouth Rock Eggs—B. P. Rocks exclusively; won first premium on B. P. Rock capons, Kansas State Fair, 1903. Eggs \$1 per 15, \$5 per 100. S. H. Dunahugh, Route 1, Hoyt, Kans.

PURE WHITE WYANDOTTES for sale. Eggs for sale in season. \$1 per 15. Darby Fruit Co., Amoret, Mo.

MRS. GEO. L. BARBER,  
Saffordville, Kans.,

Will furnish Barred P. R. eggs from 94-point birds 15 for \$1.50.

## BLACK LANGSHAN EGGS

Eggs from large, healthy stock, score 92 to 94, \$1.50 per 15. Cockerels for sale.  
P. C. MARCH, 1313 West Sixth St., Topeka, Kans.

## WHITE WYANDOTTES

White ones, pure bred, and good layers, Eggs \$1 and \$1.50 per sitting.

ALVIN LONG, Lyons, Kansas.

## White Plymouth Rocks

EXCLUSIVELY.

Three Grand Yards of the Best Strains in the Country

White Plymouth Rocks hold the record for egg laying over any other variety of fowls; eight pullets averaging 289 eggs each in one year. I have some breeding stock for sale at reasonable figures. Eggs in season, \$2.00 per 15, expressage prepaid anywhere in the United States. Yards at residence, adjoining Washburn College. Address

THOMAS OWEN, Topeka, Kansas.

## The Buff Plymouth Rocks

At Gem Poultry Farm

Are Better Than Ever. At State Fair at Hutchinson 1903, I won in warm competition, 1st cock, 1st hen, 1st pullet, 1st pen 3d pen.

No Better Buffs Can Be Found.

Eggs from my two best pens, 15 for \$2; 30 for \$3.50. They are in the \$5 class. Mammoth Bronze turkey eggs, 11 for \$2. Stock all sold

C. W. PECKHAM,  
Haven, Kans.



## DUFF'S POULTRY

All our Fine Breeders of this season, also Spring Chicks for sale after the first of June. Barred Rocks, White Rocks, Buff Cochins, Partridge Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, Black Minorcas, S. C. Brown Leghorns; and Belgian Hares. Buy the best now at the lowest prices. Write your wants. Circulate free. Choice Breeders and Show Birds.

A. H. DUFF, Larned, Kan.



Don't Let Your Little Turkeys Die.

## Turkey-lene

The Wonderful Antiseptic Remedy and Tonic.

Thousands say "It's Marvelous."

Turkey-lene prevents disease, strengthens, tones and invigorates the birds and keeps them absolutely free from vermin.

Long experience enables us to give valuable practical advice on every phase of Turkey raising. This advice we give free to every purchaser of Turkey-lene.

Send 6c. by registered letter or money order and we will send prepaid enough Turkey-lene for the broods of two hens with full directions how to profitably raise every one of them.

THE NATIONAL TURKEY-LENE COMPANY,  
Dept. 122, Washington, D. C.

### The Veterinarian

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

**Lame Colt.**—I have a yearling colt that has several large puffs on each side of the hock joint. It seems painful to the touch. I noticed it only recently. Is there any remedy for it?  
Moonlight, Kans. A. M. E.

**Answer.**—I am unable to form an opinion as to the nature of the swellings. I am inclined to think, however, that they may be abscesses forming. Or they may be collections of synovia or joint oil. You ought to have a qualified veterinarian to examine this colt to determine whether there is pus or matter in the swellings. If there is, they should be opened and washed out with antiseptics. If it is not pus in them, the joint should be bathed with hot water, wiped dry, and the swellings painted with tincture of iodine once daily until the part begins to get sore, then stop.

**Mange in Pigs.**—My hogs have the mange and have had it nearly all winter. They are in good flesh and seem well otherwise. What can I do for it?  
Stafford, Kans. A. W.

**Answer.**—There are some very good hog-dips advertised in the KANSAS FARMER. Or you can use a lime-and-sulfur dip made by boiling eight pounds of fresh lime and twenty-one pounds of sulfur in thirty gallons of water for an hour. Then add to this sufficient water to make a hundred gallons. Dip the hogs in this mixture by using an ordinary hog-dipping vat. Burn up all their old bedding and litter and disinfect the pens.

**Scours in Calves.**—I have some calves that scour very badly. They pass nothing but blood and mucous for a few days and then die. The calves range in age from 6 weeks to 5 months. They have been fed unground wheat and barley, and cane for roughness.  
Bird City, Kans. W. H. T.

**Answer.**—The irritation of the bowels is caused by some irritant in the food, probably the unground barley and wheat, or the cane, or both. For young calves the grain should be ground, and other roughness than cane should be given, as it contains too much indigestible fiber. After removing the cause give the calves from two to four teaspoonfuls of laudanum, the same amount of Jamaica ginger, in about three ounces of castor oil; give this at a dose and repeat in four hours until the bowels are checked.

**Lame Mare.**—I have a 4-year-old mare that has been lame in one or both shoulders for about six months. She paws badly at feeding-time and dug out the earth floor of her stall so there was a large hole next the manger. To overcome this I filled the hole with big flat rocks; but still she continued to paw. I do not remember whether she showed lameness before I put the rocks in or not. I took the rocks out some time ago, but still she paws. After turning her out of the barn in the morning and walking her around a little, some of the stiffness wears off. Can I cure her and work her in harvest? A year ago she had what the neighbors called "hip sweeney" but she got well of that last summer.  
S. J. S.

**Answer.**—I think your mare is lame in the front feet; shoulder lameness in horses is extremely rare. I am inclined to think that she has some inflammation of the feet or shoulder probably caused by pawing on the rocks. I would advise you to keep her stall well bedded forward with rather coarse bedding; it will be easier on her feet and stop her digging up the earth very much. Poultice her feet by using hot bran poultices in a sack, for two hours twice daily, for two or three days; taking pains to keep the hoofs

well greased after removing the poultices. After poulticing put on a light blister around the coronet. If she has shoes on remove them or put on broad-webbed bar shoes.  
N. S. Mayo.

#### 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 with one dollar to pay for both. In like manner two new subscribers will be entered, both for one year, for one dollar. Address, Kansas Farmer Company, Topeka, Kans.

#### Special to Our Old Subscribers Only.

Any of our old subscribers who will send us two NEW SUBSCRIPTIONS at the introductory rate of fifty cents each, during May, 1904, will receive for their trouble one copy of the KANSAS FARMER'S New Wall Atlas, descriptions of which have appeared in these columns from time to time; or we will send any one of the following publications as the old subscribers may choose, viz: "Woman's Magazine," "Western Swine Breeder," "Vicks' Family Magazine," "Blooded Stock," "Poultry Gazette," "Dairy and Creamery," or "Wool Markets and Sheep."

#### Shawnee Horticulturists.

The June meeting of the Shawnee County Horticultural Society will be held at the residence of H. W. McAfee, two miles west of Topeka on Sixth Avenue, on Thursday, June 9. The following unusually good program will be presented:

- "Pigeons—Their Use and Value," O. M. Allen.
- "Canning Fruits," Mrs. Walter Bates.
- "Beautifying the Public Highway," Robert Stone.
- "Bees for Every Orchard; Honey for Every Home," Mrs. A. L. Entsminger.
- "Should the Farmer Raise Fruit Commercially," Philip Lux.
- "To Make the Farm Home More Attractive to the Young Folks," Mrs. Margaret Hill McCarter.

#### WEEKLY WEATHER CROP BULLETIN.

Weekly weather crop bulletin for the Kansas Weather Service, for the week ending May 30, 1904, prepared by T. B. Jennings, Station Director.

#### GENERAL CONDITIONS.

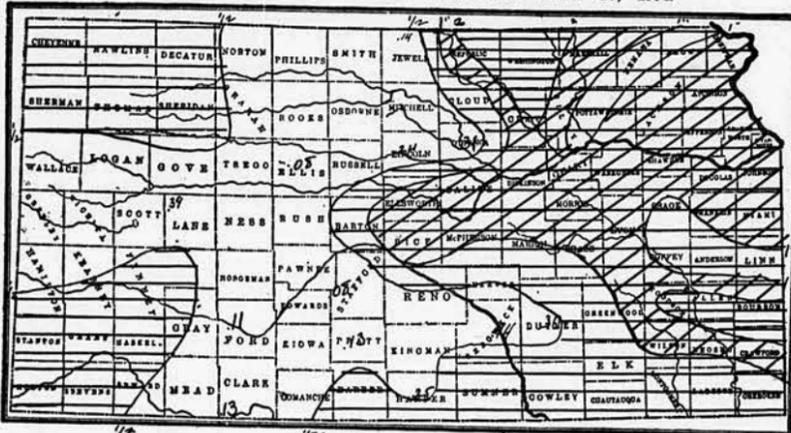
Cool weather continued though there were some warm days. Showers were general, followed by heavy rains in the central and central eastern counties.

#### RESULTS.

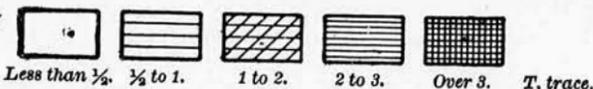
#### EASTERN DIVISION.

Wheat is in good condition in all parts of the division; it has headed well in the

RAINFALL FOR WEEK ENDING MAY 28, 1904.



SCALE IN INCHES.



southern counties and is heading in the central. Corn-planting is nearly finished, except where the wet weather has stopped it. Corn is up in the southern counties; cultivation is progressing where the weather permits. Oats have made good growth. Grass is fine, and pastures are good. Alfalfa is ready to be cut, and the first crop is being gathered in several counties. Clover is heading in Wyandotte. Potatoes are growing well and the early are in bloom and ready to cultivate. Tomatoes are in bloom in Crawford County. Strawberries are ripe and yielding well in the southern counties, and are ripening in the central. Apples promise well, though some varieties are falling badly in Jefferson Coun-

ty. Peaches and cherries are quite promising. Early cherries are ripe in Montgomery County.

Allen County.—Crop prospects improved; farmers getting their corn cleaned out some; plenty of rain.

Bourbon.—Farm work greatly retarded by wet weather; corn a poor stand; oats and grass continue to make good growth; wheat in good condition.

Chase.—Some early planted corn six inches high and cultivation begun; alfalfa haying begun, but weather too cloudy to cure well; very heavy rain in north part, washing out corn.

Chautauqua.—Wheat well headed and ripening; corn growing rapidly, but ground generally too wet for cultivation; alfalfa being cut, but weather is unfavorable for curing; grass heavy; cattle doing finely; fruit doing well.

Crawford.—Wheat headed; oats making rapid growth; corn growing well; most of it cultivated once and some the second time; pastures fine; potatoes and tomatoes in bloom; strawberries ripe and a good yield; fruit of all kinds doing well.

Franklin.—Early part of week was wet, latter part fine growing weather; much corn being replanted.

Jackson.—Corn almost all planted; all crops growing finely.

Jefferson.—Corn-planting delayed by wet weather; corn coming up well except on very low ground; all other crops good; stock improving rapidly; peaches and all small fruits fine; some varieties of apples falling badly.

Johnson.—Some corn planted on high ground; wheat and grass doing finely.

Leavenworth.—Fairly good growing week; wheat good; oats coming on well; corn-planting progressing; early potatoes ready to cultivate; gardens backward; apples, cherries and other small fruits promise well.

Lincoln.—Wheat, oats and grass in good condition; wheat has begun to head; farmers busy planting corn since the ground has become drier; early corn where not replanted is being cultivated on the uplands.

Marshall.—Corn-planting finished; corn coming up with a fair stand; a good growing week; all crops look well; pastures and meadows good; fair prospect for fruit.

Montgomery.—A good week for all growing crops; corn being cultivated the second time and growing rapidly; gardens doing finely; early cherries ripe.

Osage.—Corn-planting in progress; wheat and grass in good condition; strawberries ripening.

Pottawatomie.—Prospects good for all crops; wheat beginning to head; alfalfa in bloom; oats doing well; some corn being planted over, mostly on account of bad seed; sweet-potato planting progressing rapidly.

Riley.—Crops need sunshine and a week of dry weather; strawberries coming in to market; potatoes look fine and early ones are in bloom.

Wabunsee.—Corn a good stand; first of crop of alfalfa being cut—very fine; too much wet weather.

Woodson.—Fore part of week good for field work; some corn has been washed out and some covered with mud; corn growing slowly and many fields are weedy; grass and alfalfa very fine; Kaffir-corn a poor stand.

Wyandotte.—Too much rain; clover heading; alfalfa ready to cut; potatoes and garden truck growing rapidly; corn a fair stand and growing.

#### MIDDLE DIVISION.

Wheat is in good condition, except some damaged by hail in Ellsworth County, and growing too rank on bottoms in Saline and Dickinson; it is heading in the southern counties, and beginning to head in the northern. Corn is improving and though some cultivation has been done, the wet weather has prevented the full measure needed and it is and replanting is needed. Oats are doing very well, except in one of two counties, where conditions are variable. Barley is in fine condition in the southwestern counties. Rye is blooming in the northern part of the division.

Grass is growing finely. Alfalfa has grown rapidly; it is nearly ready to cut in many of the central and southern counties. Potatoes are growing rapidly, and in the southern part of the division are ready for market. Apples and peaches promise well. Early cherries are being marketed in Cowley. Strawberries are ripe in the southern counties. Forage crops are being put in.

Barber.—Wheat heading out and doing well; alfalfa beginning to bloom and nearly ready to cut; barley and grass fine; oats spotted; corn growing.

Baron.—Wheat and grass growing fine; wheat nearly headed out; cultivation of corn begun; some alfalfa being cut and stacked; gardens look well.

Butler.—Corn backward, but looks well; good prospects for crops of all kinds; a good crop of strawberries of good quality.

Clay.—Wheat and oats improving; wheat heading; alfalfa ready to cut; corn being cultivated, but grows slowly on account of con-

tinued cool weather; pastures good; early vegetables quite plentiful.

Cloud.—Too cold for corn and garden truck; wheat looking fine.

Cowley.—Corn being cultivated the second time; wheat and oats very fine; hard wheat in bloom; oats beginning to head; early potatoes and cherries being marketed.

Dickinson.—Winter wheat rank and lodging some on bottom land; on upland it is fine except some corn stalk fields; corn a good stand, cultivated once; the condition of oats varies; alfalfa two feet high; cattle doing well on pasture.

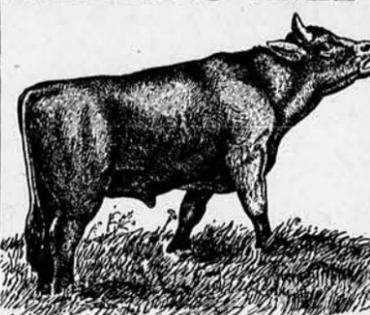
Ellis.—Wheat heading out; forage crops being planted; ground in good condition;



ONLY \$21.95  
**Farmer's Handy Wagon**

Only 25 inches high. Steel Wheels. 4 inch Tires. Carries any load two horses can pull.  
We furnish any size steel wheels, of any width, for any axle. Catalogue free.  
Empire Mfg. Co., Box 137 C. Quincy, Ill.

## KRESO DIP



FOR ALL LIVE STOCK SHEEP, SWINE, CATTLE, HORSES, ETC.

PREVENTS AND CURES PARASITIC AND SKIN DISEASES

Kreso Dip is a powerful germicide and disinfectant, an unfailing tick-destroyer and lice-killer. It cures scab, mange and other parasitic diseases; kills dog-fleas and poultry-lice; prevents disease and keeps away flies. It is scientifically prepared in our own laboratories, never varies in strength, and is always reliable.

NON-CARBOLIC, NON-IRRITATING, NON-POISONOUS

Easily prepared—just mix it with water: 1 gallon Kreso Dip makes 100 gallons ready for use.

TRIAL LOT, \$1.25 PER GALLON CAN, at your druggist's, or direct from us (charges prepaid). Special quotations on quantities.  
Write for descriptive pamphlet—it's free.

### PARKE, DAVIS & CO.

HOME OFFICES AND LABORATORIES: DETROIT, MICH.  
BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Indianapolis, Minneapolis, Memphis.

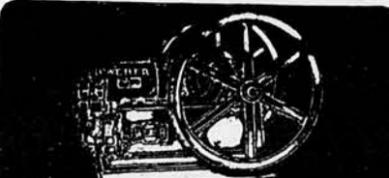
## ZENOLEUM

**Famous COAL-TAR Carbolic Dip.**  
For general use on live-stock. Send for "Piggies' Troubles" and "Zenoleum Veterinary Advisor" and learn its uses and what prominent stockmen say about it. Books mailed free. All druggists, or one gal., express paid, \$1.50; 5 gal., freight paid, \$6.25.  
ZENNER DISINFECTANT CO., 61 Bates St., Detroit, Mich.

## For Sale Cheap

A bargain for the next 30 days—400 acres of the finest bottom land in Kansas. Good improvements; fine orchard; located 1 1/2 miles from town. Landlord's share of crops to go with place. Price only \$42.50 per acre. Write for full description.

R. G. TONKIN,  
Abilene, Kans.



## Weber Gasoline Engines

generate most power at least expense and in form best adapted to small or large purposes. Everything from the 3/4 horse Jr. to 300 h. p. Engines. All money earned, built to last, absolute in safety. No skilled engineer or license required. Any intelligent person can operate. Preferable to steam for many reasons. Catalog shows why. Write for it.  
WEBER GAS & GASOLINE ENGINE CO., Box 121, Kansas City, Mo.

Ellsworth.—General crop conditions good; wheat considerably damaged by hail on the 25th.

Harper.—Cloudy and cool; May wheat ripening; oats improving; corn weedy, cultivation being prevented by continued rains; some little damage from hail; no insects or rust in wheat.

Jewell.—Wheat, oats, alfalfa, corn and prairie-grass doing finely; not much rain during the past two weeks, but nothing suffering.

Kingman.—Wheat, oats and barley doing finely; corn grows slowly, and is getting weedy.

Lincoln.—Wheat beginning to head with prospects for large crop; ground generally wet and becoming weedy; rather cool for all crops except wheat.

Ottawa.—Wheat fine where the ground was

properly prepared, very poor on unprepared stubble ground; some being plowed up for other crops; corn, oats and alfalfa fine; rye in bloom; wheat heading; potatoes fine; fruit prospect fairly good.

Democratic, Republican, Prohibition, Socialist, Labor, and all other ballots cast for President on any and all tickets, on November 8, 1904.

As a guide to correct guessing we give the official figures of the popular votes for President during the past five Presidential elections, which were as follows:

Table with 2 columns: Year and Popular Votes. Rows include 1884, 1888, 1892, 1896, and 1900.

It will be noted that each four years shows an increase, and it is safe to figure on about the same average ratio of increase in the vote of 1904.

VOTE EARLY AND OFTEN. This advice has been administered many times, but the Farmer again wishes to bring it to your attention.

The Lion Coffee people are absolutely and perfectly responsible for many times the amount involved, and those who win can be sure that they will get their money promptly and honorably.

National Republican Convention, Chicago, Ill., June 21-24.

The Chicago Great Western Railway will on June 16 to 20 inclusive sell round-trip tickets at one fare plus 25 cents to Chicago, Ill.

The World's Fair. In making your arrangements for the World's Fair at St. Louis, this summer, if you consider convenience and saving of time, you will take the Wabash Railroad, as it runs by and stops at its station at the entrance of the fair grounds, thus saving several miles' run and return, and the inevitable jam at the big Union Station.

Fortunes for Readers. Through our Chicago representative we have arranged for the announcement of the Lion Coffee Contest, which appears elsewhere in this issue.

ST. LOUIS OPENING BEATS CHICAGO. In order that our readers may have some information for estimating, we will compare the St. Louis World's Fair with Chicago.

HOW THE PRESIDENTIAL VOTE RUNS. The contest for popular vote for President at the National election, which takes place on November 8, next, gives Farmer readers a second opportunity to gather in a goodly lot of the Lion Coffee shekels.

The meaning of the term "popular vote" is the total number of voters who cast their ballots for all candidates. In other words, it is the sum total of the

Special Want Column

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time will be inserted in this column without display for 10 cents per line of seven words or less per week.

CATTLE.

HEREFORD BULLS—Grandson of Imported Soudan, a ton weight, \$100. Also young bulls. Prices low. J. T. Smith, Independence, Kans.

CHOICE young Shorthorn bulls very low prices; also open or bred gilts, Polands or Durocs. M. C. Hemenway, Hope, Kans.

FOR SALE—2 choice Hereford bulls, 22 months old; something good. Call on or address A. Johnson, Route 2, Clearwater, Sedgewick Co., Kansas.

D. P. NORTON, Dunlap, Kans., offers registered Shorthorn bull and heifer calves, crop of 1903, at \$50, set of Imp. British Lion 133682.

FOR SALE—Registered Hereford bulls, 1 and 2 years old, short legged, heavy fellows, reasonable prices. H. B. Clark, Geneseo, Kans.

FOR SALE—50 head of fifteen-sixteens Shorthorn heifers and cows, at \$30 per head; all bred to thoroughbred Shorthorn bull. On A. T. & S. F. R. R. J. C. Surdick, Bazaar, Chase Co., Kans.

FOR SALE—A good pure-bred Shorthorn bull; 3 years old; bred by J. H. Bayers. S. F. Hanson, Route 1, Iola, Kans.

FOR SALE—8 Galloway bulls from 3 to 18 months old. Prices right. J. A. Mantey, Mound City, Kans.

FOR SALE—3 red 2-year-old Scotch bulls. J. J. Thorne, Kinsey, Kans.

HANDY HERD REGISTER—The improved Handy Herd Book for swine breeders is a record book that every breeder should have. It is perfect, simple, practical and convenient and contains 101 pages or about one cent a litter for keeping the record. The regular price of this handy herd book is \$1, but we furnish it in connection with the Kansas Farmer one year for only \$1.50.

ASK YOURSELF this question—If you need a Shorthorn bull, hadn't you just as well buy one of me, as to pay some one else more money? I have 1 roan and 2 reds—good ones—from 15 to 23 months old. J. H. Bayer, Yates Center, Kans.

FOR SALE—6 good Shorthorn bulls, 3 of them straight Cruckhanks; come and see me. H. W. McAfee, Topeka, Kans.

GALLOWAY CATTLE—Choice young stock of both sexes for sale. W. Guy McCandless, Cottonwood Falls, Kans.

FOR SALE—Guernsey bulls from best registered stock. J. W. Perkins, 423 Altman Building, Kansas City, Mo.

POULTRY.

EGGS FOR HATCHING—From my "Superior Winter Laying Strain" of Bred Plymouth Rocks, noted for size and quality. Fifteen years careful exclusive breeding. 15 eggs \$1; 30 eggs \$1.50. E. J. Evans, Box 21, Fort Scott, Kans.

FOR SALE—Eggs for hatching, from my 95 scoring Light Brahma and White Wyandotte pens at \$1 for fifteen. As I am now done setting, I have reduced the price just one-half for the balance of the season. There is no better stock anywhere. Mrs. J. R. Kenworthy, Cottage Home Poultry Yard, Wichita, Kans.

ROSE COMB RHODE ISLAND REDS—Superb in colors. Extra fine layers, noted for best results. Eggs \$1.50 per 15. L. F. Clarke, Mound City, Kans.

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

PATENTS.

J. A. ROSEN, PATENT ATTORNEY 418 Kansas Avenue, Topeka, Kans.

quality was pretty good and the market continued good throughout the week. The heavy runs of Texans kept the market on that kind of stuff from making any advance but they closed the week with a stronger feeling discernible.

The horse trade last week was of light volume. The run for the auction was only about 250 head and included all kinds. No high prices were realized, although one team of drafters sold up to \$455, and one single animal reached \$220.

The mule trade was very quiet all week. Monday opened up rather promising and quite a number were sold, the main demand being for the heavier ones. Prices on them were steady. After the first day or two, there were but few sales reported.

The wheat market was lower, No. 2 hard \$2.01@2.02, No. 3 hard \$1.98@2.00, No. 4 hard \$1.95@1.96, No. 2 red \$1.01@1.03, No. 3 red \$0.98@1.00, No. 4 red \$0.94@0.95. The corn market was also lower, No. 2 mixed \$0.47@0.48, No. 3 mixed \$0.45@0.46, No. 4 mixed \$0.44@0.45, No. 2 white \$0.47@0.48, No. 3 white \$0.46@0.47, No. 4 white \$0.44@0.45.

H. HOWARD PETERS.

The Markets

Kansas City Live-Stock and Grain Markets.

Kansas City, Mo., May 30, 1904.

Cattle receipts were some larger this week than last; the receipts for the week were 25,000. The supply of beef cattle was large in comparison with the other kinds and the quality of the dressed beef supply was the best of the year.

The receipts of cattle at this market to-day were lighter than usual, there being only about 5,000 head in the supply. The supply of beef steers was large considering the small receipts of cattle, and the quality was good.

The receipts of hogs at this market to-day were about 5,000 head, the bulk of all the sales were around \$5. Stockers and feeders of which the supply was of fair quality was steady with last week's close.

The very best grades of she stock sold a dime higher, but medium to good kinds were only steady. More stock cows and heifers than usual in the day's receipt and were about steady.

Last week's hog market closed about \$1.20 lower than the same time last year and about steady with the previous week's close and 10@15c higher than Wednesday of last week when hog prices were the lowest of the year.

Receipts of hogs for last week were 46,000, about 10,000 less than the previous week. Despite the small receipts the market opened with a downward tendency and gradually went down until Thursday; since then the tendency has been upward and the loss of the first of the week was regained.

The special feature of last week's market was the large place quality had in price-making. Top hogs for the week was \$4.60 received on Saturday and Friday, and the lowest top for the week was had on Tuesday, at \$4.47. The bulk of hogs sold around \$4.50 for the week. There has been an increased shipping demand for light hogs the past week and prices on this kind of stuff has advanced more by that influence.

There were only 3,200 hogs on to-day's market, which was a very light run for Monday. The receipts at the yards were 5,900, of which 2,700 went direct to Armour from Sioux City. The quality of the receipts were good and competition sharp consequently an early clearance. Prices were 2@5c higher, all grades sharing in the advance except pigs, which were weak.

The bulk of hogs over 200 pounds sold for from \$4.47@4.60 and the top was \$4.65. Top for hogs under 200 pounds was \$4.52@4.60 and the bulk \$4.45@4.60. There was no demand for shipping hogs to-day. Owing to high water some of those that were expected did not arrive. Hog market is looking up.

The receipts of sheep here last week were moderate at about 19,000 and were well scattered throughout the week, no big runs being had any day. Most of the offerings were Texas grassers with a fair sprinkling of natives. The general

SWINE.

SWINE—Poland-Chinas. Choice young boars, at \$12.50 and \$15. Pigs at \$5 weaning time. Best breeding. Prompt shipments. Satisfaction guaranteed. E. L. Hull, Milford, Kans.

PEDIGREED POLAND-CHINA males cheap. Barred Plymouth Rock eggs 5 cents each. John D. Zeller, Hiawatha, Kans.

HORSES AND MULES.

FOR SALE—Young, black Percheron stallion Charles L. Covell, Wellington, Kans.

FOR SALE—About 40 head of horse stock Geldings and brood mares. The mares are unbroken except a few head. Geldings broken to saddle. This stock is of Clyde breeding and a good bunch of stock in the hands of the right man. Lakin, Kans., 75 miles west of Dodge City. John O'Loughlin, owner, Lakin, Kearny County, Kans.

SEEDS AND PLANTS.

FOR SALE—Genuine Siberian millet-seed—55 cents per bushel. Sacks free in lots of two bushels or more f. o. b. at Topeka. Address J. W. Ferguson, Route 1, Topeka, Kans.

ALFALFA SEED—\$8.50 per bushel. No sand, no weed-seeds. J. H. Glen, Farmer, Wallace, Kans.

FARMS AND RANCHES.

WANTED—To correspond with a real estate owner or agent who can trade an improved farm for a section of rice land in the famous "Katy" Texas, rice district. C. H. Stancik, 308 1/2 Main St., Houston, Texas.

LAND FOR SALE. In western part of the great wheat state. H. V. Gilbert, Wallace, Kans.

960-ACRE STOCK FARM—To rent for a term of years, a good dwelling house, horse and cow barns, hog houses, corn cribs, granaries, corrals, wells, windmills, gasoline engine. 800 acres in timothy clover and prairie grass. 640 acres enclosed with hog-tight wire fence. Land has been used as a stock farm for 18 years. Well manured. Farm 4 miles south of LaHarpe, Kans., 8 miles east of Humboldt, Kans. Call on or address S. M. Knox, Route 1, Humboldt, Kans.

DO YOU WANT SOMETHING CHEAP? If so read this. 80 acres, 80 acres bottom, 8 acres timber, house, barn, sheds, etc. for \$1,500. 100 acres nice smooth land, small house, 75 acres cultivated, nice smooth quarter; price \$2,500. If you want something larger and better improved write us about the kind of a place that would suit. Garrison & Seudebaker, Florence, Kans.

120 ACRES—New buildings, Osage Co., \$2,800. Bargain. Farm, Route 2, Williamsburg, Kans.

120 ACRES, new buildings, Osage Co., \$2,600. Bargain. Farm, R. F. D. 2, Williamsburg, Kans.

MISCELLANEOUS.

WANTED—Two practical experienced men for general work on farm. \$150 for 6 months. L. C. Walbridge, Russell, Kans.

FOR SALE—Second-hand engines, all kinds and all prices; also separators for farmers own use. Address, The Gelsner Mfg. Co., Kansas City, Mo.

500,000 POUNDS WOOL WANTED—Write us for prices; send sample and we will offer you the highest market price by return mail. Western Woolen Mill Co., North Topeka, Kans.

I WANT TO BUY a second hand hay-press. Write me what you have for sale and name price. T. J. Kennedy, Ozawie, Kans.

FOR SALE AND RENT—300 female cattle, 2,000 sheep, teams, and tools, for cash or short time. Will rent for cash or share of sales for any number of years, good ranch to carry all of above stock. Good buildings for the purpose; pasture, fenced in three pastures, water in each; bottom and alfalfa hay; farm land fenced separately. Or will sell whole outfit on any kind of time. Address E. H. Boyer, Meade, Kans.

FOR SALE—A 60 barrel mill. Address D. F. Van Buskirk, Blue Mound, Kans.

GOVERNMENT POSITIONS—As clerks, carriers, stenographers, accountants, etc., paying \$600 to \$2,000 salary. Applicants of limited means allowed to repay part expenses after securing positions; state which position you prefer. Address Office Training School, Kansas City, U. S. A.

WORLD'S FAIR—50 rooms for visitors, close to grounds, furnished with or without board, good neighborhood, on car line. Write for list at once. A. T. Eakin, (formerly County Treasurer of Hodgeman county, Kansas) 4612 Bell Ave., St. Louis, Mo.

PALATKA—For reliable information, booklets, and other literature, address Board of Trade, Palatka, Florida.

The Stray List

Week Ending May 12. Marion County—J. H. Thrasher, Clerk. HEIFER—Taken up by Abraham Carnelson, in Center tp., (P. O. Marion), April 13, 1904, one red yearling heifer, bush of tall white, silt in each ear; valued at \$10.

Week Ending May 19. Lincoln County—N. J. Davidson, Clerk. SOW—Taken up by Peter Zier, in Indiana tp., May 3, 1904, one red sow; weight about 350 or 400 lbs.; valued at \$12.

Neosho County—W. L. Baldwin, Clerk. CATTLE—Taken up by W. W. House, in Lincoln tp., April 11, 1904, one 5-year-old red and white spotted cow; also one 2-year-old red, dehorned steer with wire ring in left ear; valued at \$25.

Chautaugua County Poland-Chinas. Sows of Klever's Model, G. H. Sanders' Tecumseh Chief, Look Me Over, Perfection and Black U. S. blood. Headed by Kid Klever (33079). Pigs by Kid Klever and pairs not related for sale; also 4 yearling boars cheap. F. H. Barrington, Spring Creek, Kans.

FRESH RIPE STRAWBERRIES

Direct from our field to your express office. Guaranteed to arrive fresh and sweet anywhere within 300 miles of Fort Scott. Price \$1.50 per crate of 24 quarts f. o. b. here. Can ship daily on regular orders. Other berries in their season. Reference Bank of Fort Scott.

T. H. SMALLWOOD, Fort Scott, Kans.

## The Apiary

Conducted by A. H. Duff, Larned, Kans., to whom all inquiries concerning this department should be addressed.

### The National Bee-keepers' Association.

Objects of the association: To promote and protect the interests of its members. To prevent the adulteration of honey.

Annual membership fee, \$1.00. Send dues to treasurer.

Officers: W. Z. Hutchinson, Flint, Mich., president; J. U. Harris, Grand Junction, Col., vice-president; George W. York, Chicago, Ill., secretary; N. E. France, Platteville, Wis., general manager and treasurer.

### The Kansas State Bee-keepers' Association.

Officers: Dr. G. Bohrer, Lyons, Kans., president; E. W. Dunham, Topeka, Kans., vice-president; O. A. Keene, Topeka, Kans., secretary; J. J. Measer, Hutchinson, Kans., treasurer.

Annual membership fee, \$1.00. Send dues to treasurer. Official organ, Kansas Farmer.

### Bees in Box Hives.

EDITOR KANSAS FARMER:—Last summer I bought two stands of bees. They were in box-hives made of four boards nailed together and a board on top, weighted down by a stone. One was a strong swarm, and the other was not, and barely made enough honey to winter it through, with some feeding. Both were May swarms. Now I find the weak colony has moths in it, and although the bees work industriously, I see dead young bees on the floor of the hive. Is there any hope that they may rid themselves of the moths, and is it possible to transfer them into movable frame hives? I raised the hives an inch higher than the bottom by means of little blocks of wood. Is the Hedden hive better than the modified Langstroth hive?

MRS. L. E. COPPLE.

Jefferson County.

Transfer your bees into movable frame hives. There is no better hive than the modified Langstroth, or what is better known as the "dovetailed hive." Just now is the right time to transfer all weak colonies, and strong ones, too, but the stronger ones might have better been moved earlier on account of their strength. The moths will do no harm to strong colonies, nor even weak ones if the bees are Italians, have a queen and are in proper condition otherwise, but the old black or native bees are not proof against them. If a hive is badly infested with moth-worms in the combs, the only remedy is to cut out all infested comb, and this can readily be done in transferring. Get pure Italian bees, or if you have black bees get Italian queens and introduce them in your colonies, and your bees will in a short time be pure stock. Transferring is done by cutting the combs from the box-hives, and fitting them in the frames of the new hive. Cut out combs enough or pieces of the same to fill a frame neatly, and wrap hard twine around the frame in several places to hold the comb in place, thus filling up the frames of the new hive if you have enough comb, otherwise you should have some foundation comb to fill out the remaining frames. See advertisement of bee supplies in this paper, where you can send and get just what you need. You should have a beesmoker to begin with, and with the aid of this you can do anything you wish with your bees in perfect safety. There is no profit in keeping bees in box-hives, as there is no way you can handle them to either keep them in good condition or to get a paying crop of honey from them. Early in spring is the best time to transfer them, but I would do it now or even a month later, rather than to let them run over until another season. If they should swarm, you should have new hives to put the swarms in, and enough foundation comb to fill all the frames. The foundation is of great importance, as it will insure straight combs and greatly facilitate handling them. Some people now transfer by simply driving the bees out of the old hive into the new one on sheets of foundation, leaving the combs in the old hive until the remainder of the brood hatches, which is about twenty days, then drive again into another hive, thus making two colonies. This is done a little later in

spring when the hives are strong with bees. The top should be removed from the old hive, and the new hive set over the old one, and smoke used at the bottom to drive them. Care should be taken to see that the queen is in the new hive, but a small portion of the bees should be left in the old hive to care for the brood.

### Stimulative Feeding.

EDITOR KANSAS FARMER:—I have been thinking whether or not it would pay to feed bees in the spring, even if they had honey enough in the hive to carry them through. Would it stimulate breeding? There is a great deal of the time in the spring when it is so windy that bees can not fly any distance. Would it do to put food out in some kind of a dish and let all of them have free access to it? Would it have a tendency to cause robbing where a person has fifteen stands to put out about five pounds a day? Would it have a tendency to make them much stronger and consequently make them in better shape to make honey when the honey flow comes? How would you put it out and what kind of vessel would be the best to use?

Sumner County. W. W. WICKS.

Stimulative feeding in early spring months is very beneficial to bees, and in every case where it is done right will almost double their strength by the time the honey harvest opens. It matters not whether they have an abundance of honey to carry them through, feeding will add greatly to their strength in numbers of bees, and the results are that the honey crop is greater in proportion. Feeding may be begun as soon as settled warm weather sets in, and they should be fed regularly every day, or at least every other day until the honey harvest opens, except in intervals when they are gathering honey from flowers. Open-air feeding is not to be recommended by any means, as it will in nearly every case cause robbing and fighting among the bees. It seems to set them wild, causing them to fight and sting everything in sight, and is a much more expensive way of feeding. You can be sure that when you set out sirup to your bees, you will have your neighbors' bees to feed also. Confine the feed in supers over the hive, and leave no cracks or crevices where a bee can slip in from the outside. The best feeders are made of wood, and all supply dealers keep them for sale, but the best home-made feeder is a block of wood filled with holes, nearly but not quite through the block.



## BEE KEEPERS!

We have three car-loads of Higginville Apiarian Supplies in stock, which we will furnish at factory prices, saving freight from factory to Kansas City. Special prices furnished on

large orders. Correspondence solicited. Catalogue furnished on application. Advise ordering early.

**WALKER-BREWSTER GROCER CO.**  
Wholesale Fruit and Produce,  
403 Walnut St., - KANSAS CITY, MO.

## Dunaway Stack Anchor

Prevents the Top of the Stack Blowing Off. . . .



Screws in like a corkscrew. Cheap; economical; money and time saver. Saves its cost many times over every year. Does away with the old way of holding the tops of hay and grain stacks on by using rocks or other heavy weights.

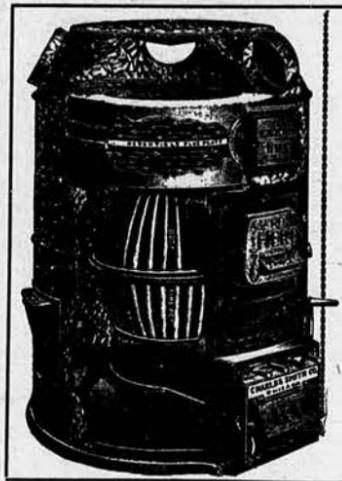
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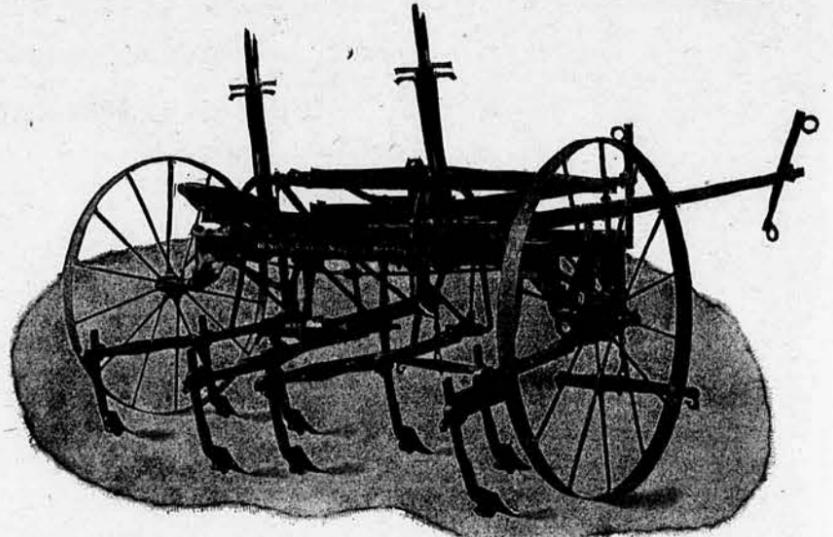
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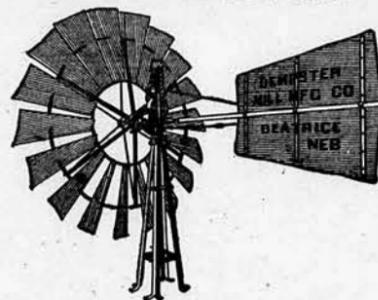
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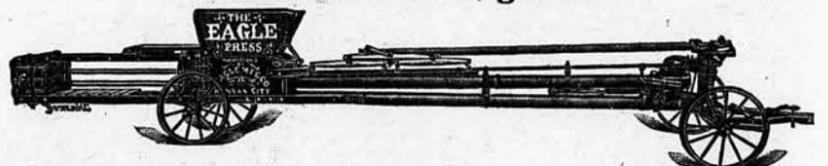
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**Forestry as Applied to the Development of Kansas.**

(Continued from page 580.)

wood, the heart being the only portion of the wood that will resist decay. The proportion of sap as compared with heart wood, in the mulberry, Osage orange, Catalpa, and locust, is quite small.

The Austrian, Scotch, and other pines will grow in the West, if one has patience and understands how to start them and give proper care and cultivation until they become firmly established.

**WILL IT PAY?**

Every man who plants trees—or anything else—naturally asks the question, "What will it pay?" I believe that by a judicious selection of location and the specie of tree best adapted to that location, and with proper care, a timber-plantation will pay a larger rate of interest on the investment than the average farm-crop. It is true that if every owner of land planted it to timber the profits would be very much lessened; but only a small proportion of men will plant a crop for which they must wait from ten to twelve years to realize a profit. The greatest profit to be derived from an investment of this sort is that it is permanent. When a plantation is once established, and the crop is removed, a second crop can be grown from the stumps in much less time, and produce a better grade of timber, than it took to grow the first one. The Osage orange and catalpa are the most persistent sprouters on the list. When once established it is almost impossible to eradicate them.

It will pay not only in a financial way, but it pays in the sense of being a benefit to the community in which one may live. It will pay as a shelter for hogs or cattle from the cold, north-westerly blizzards that sweep over the State annually. It will pay many times the cost by providing shelter for a herd of cattle during one of these terrible storms. From my experience of almost twenty years in growing timber-trees, I feel perfectly satisfied that it has paid me; and if I had the means, I would plant one or two thousand acres to forest-trees within the next few years, because I firmly believe that long before 1920 every owner of timber will find a ready market and a good price for anything that he may offer for sale.

In conclusion, I believe that the growing of timber-trees and orchards is one of the greatest blessings to the people of Kansas. The reasons why these should be grown are numerous. I will suggest a few of them:

1. **Temperature.** We have authentic records of places in the Old World where the temperature has been from two to six degrees lower in a wooded region during the summer than in an open prairie region near by. Dr. Woeikoff, of Russia, has many records proving this statement. I do not know of any permanent record in the United States; but from my own experience, in going into a wooded area from an open field, it seems that the difference in temperature is many degrees.

2. **Humidity.** Two years ago a traveler had occasion to visit the big trees of California. On his way from the village to the grove, the road was dry and dusty, although there was considerable moisture in the air, and the temperature was excessively oppressive. As the roadway entered the tall trees, there was a noticeable dampness that seemed to come from the branches, and as the journey was made far to the interior of this grove, on many of the trees water was actually dripping from the topmost limbs. This may, or may not, prove that tree-growth has anything to do with humidity; but it proved to this traveler that the influence of the forest had considerable to do with the humidity in that particular locality.

3. **Evaporation.** Every man who has come in contact with forestry knows from personal experience that the evaporation is much less in a wooded district than it is on a prairie. We have miniature illustrations of this in walking from a field of corn into a thicket three or four days after a summer shower. The corn-land will

be dry and in need of rain, while the land in the thicket will be moist. We have another illustration in the fact that the evaporation on the north side of a house or tight fence is much less than it is on the south side. I could give dozens of illustrations to prove this point, but do not think it necessary.

4. **Creeks and Springs.** Thousands of creeks and springs in Ohio and Indiana that furnished water in abundance fifty years ago are totally dry now except during the rainy period. This is caused by a removal of too much of the native timber. Many localities in Indiana that were once heavily timbered now have the appearance of being a prairie country; they also have, to a degree, the climatic conditions that abound in such a locality.

5. **Hot Winds.** Many men have devoted thought and time to the solving of the problem of the hot winds that come into Kansas from the southwest. Two days of a hot wind will cause more damage to a growing crop than three weeks of dry weather. We have had many ideas advanced as to how to overcome the effect of these winds. I believe that if every landowner would endeavor to break up the wind so far as his individual holdings were concerned, it would go farther towards solving the hot-wind problem than anything yet advanced. I will illustrate this point: In going over a divide near Topeka that was exposed to the full blast of the south wind, and the heat almost unbearable, I came to a sheltered belt of evergreens located on the topmost point of the divide. On walking in among the trees the temperature seemed much lower, the force of the wind was entirely broken, and it seemed like another locality altogether. Another illustration: On another divide near Topeka is an Osage orange hedge running east and west; on the south side of this hedge the evaporation and heat is much greater than on the north, while on the north sumac and black locust have established themselves, because this hedge produces a forest condition, whereby these two plants could secure protection during the early years of their life. The seed was evidently blown in, or had been carried in by birds—or some other agency.

It seems to me that the development of the West will surely call for a greater development of forest interests, so that the two may go hand in hand for the betterment of mankind and the government under which we live. We owe this to our children, who are to occupy the land after we are gone; we owe this to Kansas, because most of what we possess in a worldly way was made within its borders. Kansas today can not be compared with the Kansas of twenty-five years ago; the same application can be made to the Kansas of twenty-five years hence. I am anxious to build my life into the development of the State to such a degree that the future generations who will occupy our land may be thankful to the pioneer that came to the West in an early day, and provided for them a home in place of a vast, grassy, wind-swept wilderness.

Forestry should receive its share of State encouragement, because in the years to come the State will receive the greatest benefits. Man is here for a short time; but the State is to be here for all time, and any improvement that is of a permanent nature should be encouraged, in a judicious way, as far as possible, by the builders of one of the most productive States in the Union.

State of Ohio, City of Toledo, Lucas County, ss.

Frank J. Cheney makes oath that he is the senior partner of the firm of F. J. Cheney & Co., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that cannot be cured by the use of Hall's Catarrh Cure.

FRANK J. CHENEY.  
Sworn to before me and subscribed in my presence, this 6th day of December, A. D., 1896.  
(SEAL) A. W. GLEASON,  
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Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.

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In addition to the La Salle Street Station—in the very heart of Chicago, and the largest and finest railroad station in that city—it has a station at Englewood, seven miles out.

This latter station is used by several eastern lines, as well as by the Rock Island. Here is where its convenience comes in: Suppose your train is a few minutes late. You get off at Englewood, walk across the platform and get on the east-bound train. It is a splendid arrangement for people who are in a hurry. It enables them to make connections with trains that they would have missed if they had taken any other line. Chicago trains leave Topeka at 6:15 a. m. and 3:35 p. m., daily. For reservations, etc., see



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Leave Kansas City,	-	-	-	11:30 p. m. Daily
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**OSAGE VALLEY HERD DUROC-JERSEYS** 100 spring pig out of three noted sires. Am ready for orders now. Write for description and price. A. G. DORR, Route 5, Osage City, Kans.

**Rose Hill Herd of Duroc-Jersey Hogs** I have for sale a choice lot of boars ready for service; gilts bred or open, and a fine lot of early spring pigs, all out of large, prolific sows and sired by well-developed boars. Special prices for next 30 days. S. Y. THORNTON, Blackwater, Cooper Co., Mo.

**Rockdale Herd of Duroc-Jersey Swine.** I have at present 40 head of bred gilts I am pricing at \$20 and \$25 to close them out. Also 60 head of fall pigs I am offering very cheap. Prize-winning strains. Inspection invited. Rural Route and telephone. J. F. CHANDLER, Frankfort, Kans.

**SOLOMON VALLEY HERD Duroc - Jersey Swine.** Young stock of both sexes always, for sale. Visitors always welcome. Write me. W. F. GARRETT, Box 210, Portia, Kans.

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**FOR SALE** Poland-China Hogs, Holstein, Friesian Cattle; either sex. Best strains represented. H. N. HOLDEMAN, Rural Route No. 2, Girard, Kansas.

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**ROME PARK POLAND-CHINAS and BERKSHIRES.** I have about twenty boars ready for use and twenty-five sows bred, and some unbred, and a large number of good pigs, both breeds. T. A. HUBBARD, (County Treas. Office), Wellington, Kans.

**A Farm For You** ARE YOU SATISFIED AT HOME? Or do you wish to better yourself? You should investigate what the San Joaquin Valley of California has to offer hustlers. In that great Valley is grown nine-tenths of the U. S. grain crop, and millions of gallons of wine are made yearly. You can profitably raise almost everything there. Good farms at cheap prices. Low-rate colonist excursions in March and April on the Santa Fe. Write for pamphlets to T. L. King, A. T. & S. F. Ry., Topeka, Kans.

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**SHADY NOOK HERD** Poland-Chinas. Up-to-date breeding. Correspondence solicited. Inspection invited. Wm. Plummer, Barclay, Kans.

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Contains as good or better individuals and finer breeding than ever. I breed for large size and heavy bone combined, with quality and finish and strong constitution. For Sale—10 good serviceable boars; also some extra fine sows and gilts bred for late June and early September farrow. E. E. WAIT, Altoona, Wilson County, Kas.

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**Maple Grove Shorthorn Herd** Banker 129324 Cruickshank Herd Bull. Sissy 849 of Vol. 40, Rose of Sharon blood, Norwood Barrington Duchess 654 Vol. 50, Bates blood. Pure bred, unregistered cows and bulls for sale. OSCAR DUEHN, Clements, Kansas.

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**Valley Grove Shorthorns.** Bulls, bred heifers, and cows with calves at foot sired by Lord Mayor 112727, Knight Valentine 157068 and Golden Day for sale. Heifers bred to Golden Day and calves at foot by each herd bull. T. P. BABST & SONS, Auburn, Kans. Telegraph Station, Valencia, Kans.

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**D. P. NORTON'S SHORTHORNS.** DUNLAP, MORRIS CO., KANS. Breeder of Pure-bred SHORTHORN CATTLE. Herd bull, Imported British Lion 138692. Bull and heifer calves at \$50.

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**CLEAR CREEK HERD** Scotch Topped Shorthorns. Riverside Victoria Prince 153894 at head. This herd bull and young bulls of his get for sale. Imported Ruby, Nellie Blyand Moss Rose females. Visitors welcome. CLARK & CLARK, Fredonia, Kans.

**Plainville Shorthorn Herd.** Headed by Strawberry Baron 149498 and Prince Lucifer 188685, a pure Cruickshank. Young stock for sale at all times. N. F. SHAW, Plainville, Youngs Co., Kan.

**MAPLE LEAF HERD OF THOROUGHbred SHORTHORN CATTLE and POLAND-CHINA SWINE.** Farm is 2 miles south of Rock Island depot. JAMES A. WATKINS, Whiting, Kans.

**GAS BELT HERD** Scotch Topped Shorthorns. Choice young bulls by Gold Coinage 124579 for sale. Herd consists of Princess of Arabia, Ianthas, Amelias, Pineapples and Young Marys with Loftus 167390, an Orange Blossom Cruickshank, at head. Visitors welcome. Come by Santa Fe, Frisco or Missouri Pacific. W. W. DUNHAM, Fredonia, Kans.

**EVERGREEN RIDGE SHORTHORNS** All Red and Dehorned. FOR SALE NOW—Three yearling bulls. Also will dispose of my herd-bull, Baron Knight 134948, between this and July 1. Baron Knight is a worthy son of T. K. Tomson's Gallant Knight, is 5 years old, red in color, an animal of magnificent scope and range, and weighing, in working order, 2,100 pounds. Address or call on A. M. ASHCRAFT, Wm. H. RANSON, North Wichita, Kans

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**Glendale Shorthorns** FOR SALE CHEAP to reduce herd—Imp. Scotch Scotch-topped Bates and best American families. Cows bred; also bred and open heifers. Young bulls 8 to 24 months of age. Visitors always welcome. Long distance phone farm. C. F. WOLF & SON, Ottawa, Kansas.

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