

# KANSAS FARMER



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## BOUNDARY LINES OF FARMS.

EDITOR KANSAS FARMER:—Several interested parties would be pleased to get information about boundary lines of farms. Twenty-six years ago A and B each purchased adjoining quarter sections of land and set their hedge rows on the line between them, according to the corner stones of the Government survey, and have regarded this hedge row as the dividing line between them for the past twenty-seven years. The Government corner stones have since been lost.

Two neighbors who own land on the opposite side of the road from A and B disagree in regard to the location of the boundary line between their farms and call on the county surveyor to survey the land. The county surveyor sends out notices to sixteen farmers, residents of four sections of land where the lines are in dispute, and tells them that their lines and corners will be affected by this survey. Only two men, of the sixteen property-owners, desire this survey; the others are all satisfied with the lines and corners as they are.

Can A and B's line be changed by this survey? Must all these farmers help pay for a survey they do not want and is only called for by these two men who are unable to agree?

Marion County. S. A.

It will be well for the parties interested in this matter to read carefully chapter 29 of the General Statutes of Kansas. Section 7 of said chapter provides that any party or parties having a survey to make in which another party or parties are interested, shall notify the county surveyor, who shall notify such interested party or parties and that such notified parties shall pay their proportionate part of the expense of a survey by the county surveyor. If it seem unjust that any owner of land should be thus empowered to order a survey with attendant costs upon the lands of his neighbors, it must be remembered that an official survey is a legal proceeding. As in bringing a law suit a person may place others under needless expense, so in causing a survey to be made a cranky person may create costs that ought not to be created. Section 31 of the chapter mentioned provides that the county surveyor shall apportion the costs among the several parties interested. In the cases that have gone to the Supreme Court these sections of the law have been considered conclusive as to costs.

That the line which was established according to the original Government survey markings and has been recognized for twenty-seven years should continue to be the line, there is no doubt. Any survey which disturbs such line would be promptly set aside if the case were taken into court. On this point Judge Cooley on Boundary Lines, quoted by Chief Justice Horton in 28 K. 665, says: "To bring these lines into discredit when people concerned have not questioned them, not only breeds trouble in the neighborhood, but it must often subject the surveyor himself to annoyance and discredit, since in legal controversy the law, as well as common sense, must declare that a supposed boundary line long acquiesced in, is better evidence of where the real line should be than any survey made after the original monuments have disappeared. . . . It is merely idle to direct a surveyor to locate or establish a corner as the place of the original monument according to some inflexible rule, however erroneous may have been the original survey. The monuments that were set must nevertheless govern, even though the effect be to make one-half of a

quarter-section of land ninety acres and the adjoining one seventy acres, for parties buy, or suppose they buy, in reference to these lines, and no more, be it more or less."

Sections 27-30, chapter 29, provide that any interested party may appeal from the finding of the county surveyor to the district court. The appeal must be taken within thirty days. If appeal be taken, it will doubtless be necessary to employ an attorney, so that it is not necessary that the procedure on appeal be described here.

It is proper to call the attention of the county surveyor to the facts and the evidence as to the location of the Government survey, and to urge that this line be left unchanged. Indeed it will do no harm to call the county surveyor's attention to THE KANSAS FARMER'S discussion of the subject, for, though he is doubtless conversant with the law and the decisions of the courts, he may like to refresh his memory thereon.

## DAMAGES ON ACCOUNT OF ROADS.

EDITOR KANSAS FARMER:—Please inform me through the columns of THE KANSAS FARMER whether a man must give the required amount of land for a public road, on a section line, or whether he can collect pay for it, or in other words can he sell it to the State?

If a road is being opened through his land, compelling him to move fences, or build new ones, can he hold the township for the expense of doing this work?

NIC. SUHLER.

Kingman County.

The subject of "Roads and Highways" is treated in chapter 154, General Statutes of Kansas. The owner of land over which a road is proposed is entitled to compensation for the land taken for public use, or rather for the easement by which the public acquires the right to the use of the land for the purposes of a highway. In several counties of Kansas all section lines have been declared public highways by special enactments. The Supreme Court, 53 K. 655, sustained the constitutionality of such acts on the ground that "a proper tribunal is constituted by the provisions of the act, so that the land-owners can claim and receive damages for the land taken for highways."

Section 3 of chapter 154 provides for a hearing as to damages sustained by any person. Our correspondent should ask his township trustee or a justice of the peace to allow him to examine said chapter 154, and he should read carefully sections 3, 4, 5, and 8, and the brief statements of decisions of the Supreme Court thereon. He will observe that it is necessary to present his claim for damages to the road viewers, and to present it at the proper time.

## A HARDY BERMUDA GRASS.

The Oklahoma Experiment Station has again rendered valuable service to the farmers of the Territory by discovering and propagating a variety of hardy Bermuda grass. Bermuda grass grown from seed either winterkills, or is so greatly injured by the Oklahoma winters that it is very unsatisfactory. But by close observation at the experiment station, it was learned that in some of the plats sown as long ago as 1892 there was to be found a hardy variety which endured the winters well, started early in the spring, and yielded abundantly for pasture and satisfactorily for hay. This grass yields no seed in Oklahoma, so that it has not been possible to reproduce the hardy variety from seed. It is easily propa-

gated from sod, however, and this method is reported to be reasonable in cost.

The station has distributed trial lots of this hardy grass sod to all parts of Oklahoma and has received favorable reports from every county but one. It has endured a temperature of 18° below zero without injury.

For preventing washes and for filling old washes Bermuda grass excels. It endures overflow, having been submerged for three weeks and kept on growing. "Thirteen inches of tough clay have been tamped down on an established sod of Bermuda grass, and in six weeks, the grass made its way through and formed a sod on top," says a bulletin from the Oklahoma Station. "Strips of Bermuda sod have been placed four feet apart across gullies by the roadside, and within two years, it was necessary to plow out a gutter to furnish a place for the water to run. Ditches in cultivated fields, so deep as to be impassable for farm machinery, have been filled in one season by the dirt caught by Bermuda grass planted in the hard soil in the bottom of the ditch."

As a lawn grass Bermuda grass is about the only thing that is satisfactory south of the Kansas line.

Possibly Bermuda grass may be adapted to the climate of Kansas by the method pursued in finding a variety adapted to Oklahoma. The chance of such a find is well worth a search.

## RESPONSIBILITY FOR DAMAGES BY FIRE.

EDITOR KANSAS FARMER:—I would like to inquire whether a man is responsible for damages done by his setting fire on his own farm, and it crosses over to his neighbor's land, and burns up three hundred grapevines, an acre of strawberry plants, some blackberry vines, etc. He owns eighty acres of land. Can he be made to pay the damage? Would it be a State case?

Johnson County. J. L.

Section 416 of Chapter 100, General Statutes of Kansas, reads as follows: "If any person shall set on fire any woods, marshes, or prairies so as thereby to occasion damage to any other person, he shall be liable to the party injured for the full amount of such damage, to be recovered by civil action."

Several cases under this statute have gone to the Supreme Court. In discussing them the court has inclined to a strict construction of the statute. Much importance has been attached to the words "woods, marshes, or prairies." The general tenor of the decisions is to the effect that a person has a right to set on fire any grass or trash on his own farm and that he is responsible for all damages that result from the spread of the fire to other property "through his negligence." If he exercised due diligence but the fire got away on account of causes beyond his control, as from a sudden shifting of the wind, he is not responsible. The court also holds that adjacent property-owners must not neglect to do all that they reasonably can to protect their properties from the fire.

On the other hand if any person without due regard to danger of injuring his neighbor's property or without taking proper care to prevent damage to his neighbors, starts and allows a fire to get beyond his control he is responsible for the damage done.

If any person "wantonly and willfully" starts a fire in any woods, marshes, or prairies in such a way as to occasion damage to any other person, he becomes liable on conviction to a fine of not more than \$500 nor less

than \$50, or to imprisonment in the county jail for not more than six months and not less than ten days or to both such fine and imprisonment.

Our correspondent's statement of his case, it will be seen, is too indefinite as to his neighbor's efforts to control the fire, and as to the question of wantonness and willfulness to enable the writer to determine the degree of his responsibility.

## ARE THEY SWINDLERS?

EDITOR KANSAS FARMER:—A firm has written to me and told me that I had been recommended to them as a suitable person for their employ, and wrote me a nice letter representing their business. They also offered me a good salary to be paid weekly and expenses in advance, but in order to get me acquainted with their business, I must work thirty days at the rate of three dollars per day, regardless of results. All they asked was good, honest labor and when the thirty days were up, the salary and the expenses were to begin. They told me that they were a responsible firm and they meant just what they said, and signed their name to the letter. Was that binding them to do as they agreed in their letter? Then after the thirty days were up they presented an article to be signed which was very different in tone from the letter and I found that I had been misled. Did they use the mail for fraudulent purposes in order to deceive and draw me on? Does the firm sending out these letters with no intention of doing as promised, throw itself liable, and in what way?

Is there a soldiers' home in Fort Dodge? Will you give full particulars as to how it is conducted, who can and who can not be inmates, and on what conditions?

F. SHANNON.

Lyon County.

It is safe to assume in every case of employment offered that the compensation will come within the value of the services to be rendered. Persons, or, as they generally call themselves, companies, that offer extraordinary inducements and "sure things" for untrained service generally protect themselves by skillfully worded contracts or by conditions not noticed by the unwary. When they say that some agents are making "big money" or that they will pay such and such salaries, they are not probably lying in a literal sense. There are persons in agency work who are technically called "wind artists" who can sell anything to almost anybody without much regard to the value or utility of the article sold. Such agents bring big returns to their employers and receive big pay which they generally manage to spend before received. It is useless for an honest person to try to match these wind artists. It can not be done honestly. It should be always remembered that business consists in exchanging values and that no one has a right to take from another that for which he does not give an equivalent in commodities or services, or both.

It is poorly worth while for our correspondent to try to place the persons who have deceived and mistreated him in the toils of the law. Probably their literature and correspondence when carefully scrutinized will be found to furnish plenty of loop-holes for escape. The best plan is to keep clear of all extravagant schemes however attractively presented.

If our correspondent feels that he has been swindled and that it would be right for him to assist in guarding others against like treatment, it may be worth while to take all of the correspondence to the postmaster and ask

that it be referred to the proper division of the postal service.

There is a soldiers' home at Dodge City. This is scarcely the place to give full details as to how it is conducted and who may be admitted to it. This information may be had by addressing the Soldiers' Home, Dodge City, Kans.

**ARCHED CELLAR.**

EDITOR KANSAS FARMER:—I am planning to build a stone arch cellar, and I wish to know how to make it water tight. I intend to dig down about four feet and wall it up and arch it over. I intend to lay it up with lime and cement, and plaster it inside with cement. Will this keep the water out? Some say it will not. If not, how can I build it so as to keep the water out?

I saw a stone arch cellar that had been laid up with lime and cement which had about a foot and a half of water in it. This would not be very pleasant to jump into when dodging a cyclone or something of that kind.

Elk County. GEO. W. SMITH.

A stone cellar may be made proof against water by making the excavation deep enough so that a four-inch cement-concrete floor may be laid extending under the wall, and large enough so that the wall may receive a coat of cement plaster all over the outside.

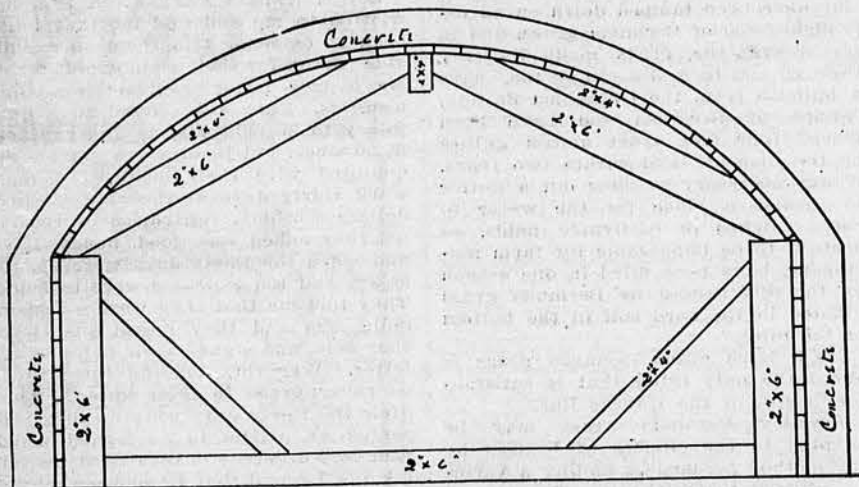
It is possible to plaster a stone wall inside with cement mortar and make it hold against water pressure of, say, four feet. The wall should be left without pointing. It may even be nec-

with the other materials at a "batch" without danger of serious injury from setting before it can be used if the cribbing be first made ready to receive the materials. The inexperienced will do well, however, to begin by using one bucket of cement and proportionate amounts of the other materials until a little experience has been gained.

If no broken stone is used and sand varying from fine sand to gravel is at hand, very good work may be done by using one of cement to five or even six of sand and gravel.

The cribbing for holding the cement in place until it sets is important. It must be strong enough to bear considerable pressure. The diagram shows a cross-section of the cribbing suggested for our correspondent's cave. The interior height of the cave is seven feet. The under side of the roof is made on a seven-foot radius. Should it be desired to make the cave higher the drawing may be considered as representing only the upper part. The side walls should be erected first. We have assumed that in digging the cave care will be taken to make the sides of the excavation true enough to serve as supports for the concrete.

The walls may be made in sections. In this case the first section will be made about twelve feet long. The cribbing will then be moved and the side completed. It will be necessary to have enough 2 by 6 by 12 pieces to support an entire section of the roof. This will require joists enough to make the cribbing for a section on each side so that the method shown for bracing for the cribbing may well be used. The frame



SECTION OF SUPPORT TO BE USED IN MAKING CONCRETE CAVE. Joists and framework to be removed after concrete has set.

essary to pick out some of the mortar in an unpointed wall so as to give the cement plaster abundant opportunity to bind to the wall. The wall should be free from all loose sand and dirt and should be well sprinkled with water just before the cement plaster is applied. The plaster may be made of one part Portland cement and two parts clean, sifted sand. It should be pressed hard with the trowel. The arch should be cemented on the top.

The floor may be made of cement concrete composed of 1 part cement, 2 1/2 parts clean sand, and 5 parts coarse gravel or broken stone. This may be top-dressed with a thin coat of cement and sifted sand troweled smooth.

Mr. Smith may well consider the advisability of making the entire wall and the arch of cement concrete. In answer to an inquiry from Dr. B. F. Harriman, of Fort Cobb, Oklahoma, for directions for making a six-inch wall in a cave 12 by 22, 7-foot ceiling, THE KANSAS FARMER of October 5, 1905, made the following suggestions:

In making concrete walls the larger the proportion of cement the stronger the concrete. But it is not necessary to have the strongest possible concrete. By properly gauging the thickness of the wall sufficient strength can be secured at reasonable cost. For the purposes of our correspondent the proportion used in constructing the seawall at Galveston will doubtless give ample strength. In this wall there was used one part cement, three parts sand, seven parts broken granite.

Used in these proportions the fine sand of the sand-hills will answer. The editor does not like the term "crushed stone." It implies that some of the stone may be reduced to powder. There should be no considerable quantity of fine dust in either the sand or the rock. The broken stone may be of many sizes from that of a grain of wheat to that of a walnut. So, too, there may be both fine and coarse sand with advantage. But materials as fine as clay or silt weaken the work.

Mix the cement and sand dry; then mix with the broken stone; then add water. Two active men may mix 100 pounds—about 1 cubic foot—of cement

for the door will be put in place before the front end is built. The front end will require cribbing for both sides. In this case the 2 by 6 supports may be tied to each other by nailing 1 by 2 strips across at top, bottom, and middle. After the cribbing is removed these may be driven out and the holes may be filled with cement mortar.

After the sides and ends are completed the support for the arched roof will be erected. The diagram makes this plain. The 2 by 4 key shown between the ends of the rafters is important in the removal of the support after the arched roof has set. It may be easily knocked out with a hammer, thus loosening all of the timbers. The pairs of rafters may be placed four feet apart.

By making a cement floor, say two inches thick, such a cave may be made water- and vermin-tight and will be practically fire-proof.

Every farmer who contemplates using concrete should write to the Atlas Portland Cement Co., 30 Broad St., New York City, asking for a free copy of the book, "Concrete Construction About the Home and on the Farm."

In order to get a full and comprehensive array of facts THE KANSAS FARMER invites communications from its friends about the care, handling, and application of barn-yard manure. We should also like facts about results obtained and opinions as to the value and economy of manure-spreaders. You are invited to write us a letter and tell us your experience.

Kansas needs a pure-food law. She needs it badly. As matters now are Kansas is the dumping ground of food stuffs that would not be tolerated in other States. Jellies and jams made of gelatin and colored with poison; milk and cream of more than questionable quality; and meats filled with preservatives can be and are sold here, and there is no penalty other than the possibility of exposure. No matter how impure, how adulterated, or how foul the foods offered for sale the purchaser has no protection but his five senses. Our statesmen are too busy hunting

jobs to give their time to necessary legislation. They "take no thought what ye shall eat" except at the picnic counter. Let us have a law to protect our stomachs.

**THE DEMOCRATIC NOMINATIONS.**

The Democrat State Convention met at Topeka last week, and placed in nomination the following ticket:

Governor—Wm. A. Harris, Leavenworth County.

Lieutenant Governor—Hugh P. Farrelly, Neosho County.

Secretary of State—Hugh C. Ahlborn, Smith County.

State Auditor—W. F. Bowman, Atchison County.

State Treasurer—Patrick Gorman, Bourbon County.

Attorney General—David Overmyer, Shawnee County.

State Superintendent of Public Instruction—A. B. Carney, Cloud County.

Associate Justices (for six-year term)—A. M. Jackson, Cowley County; D. M. Dale, Sedgwick County; (for four-year terms) W. S. Glass, Marshall County; Lorenz Hawn, Leavenworth County.

Railroad Commissioners—Harry McMillan, Ottawa County; C. A. Cooper, Rice County; Jas. Humphrey, Geary County.

Insurance Commissioner—J. W. Morphy, Russell County.

State Printer—W. F. Feder, Barton County.

In placing Colonel Harris at the head of the ticket, no less than in placing him on a platform to which little exception can be taken except that in style it is rather gushing, the Democrats have taken a strong position in State politics. In the United States Senate, Mr. Harris made a record of which Kansas is justly proud. His most conspicuous single service was rendered in connection with the settlement of claims of the Government against the Pacific railroads, in which settlement it is conceded that the Kansas Senator saved many millions of dollars for the Government.

The Republican State Convention is in session, at Topeka, this week. At this writing the slate-makers and the slate-breakers are busy, and some parts of the outcome are uncertain. It is generally realized that a strong ticket and strong positions will be necessary to the perpetuity of the one-sidedness of campaigns and majorities which have characterized recent Kansas elections.

**BLOCKS OF TWO.**

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

Many a man has a blind notion of stewardship about his property, but very few have it about their knowledge. . . . One grows tired of seeing cultivated people with all their culture cursed by selfishness.—Phillips Brooks.

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Agriculture

Do Not Sow Alfalfa on New Land.

I am breaking a pasture this week. It will finish in ten days. It is fifteen feet to rock (no water). Could I raise alfalfa on this ground? Had I better wait until fall or could I disk and harrow it and plant now? How many times should I disk the land and how many times harrow it before planting?

Barber County. M. C. CAVANAUGH.

It would not be advisable at all to sow alfalfa on the new breaking this spring, and I would not advise to seed to alfalfa even this fall. You could grow some sod crop this season and by cultivation subdue the sod and get the land into fairly good condition for seeding a year from this spring. Or if you do not grow a crop this season and disk the sod thoroughly, continuing the cultivation at intervals during the summer, doubtless a fairly good seed-bed may be prepared for early fall seeding. Probably no amount of disking could put this new breaking in condition for spring seeding of alfalfa. Alfalfa seed sown on such land would not germinate except under the most favorable conditions and with an abundant supply of moisture.

If you have older land which has been farmed for several years and really needs a rotation with grasses or alfalfa I would advise to seed the older land to alfalfa and not to seed down immediately the new land which you are breaking. Alfalfa is a soil-renewing crop and should be used as such as well as for the profit which it may bring in as a crop. The new land is not in need of rotation with alfalfa, while the older farming land doubtless is already becoming exhausted in fertility and would be greatly benefitted by a few years' cropping with alfalfa. Also, old land, unless it is too exhausted in fertility, may be seeded down with alfalfa even more readily than new land, especially new breaking—such land will be too loose and mellow for a year or two to produce the best seed-bed condition for securing a stand of alfalfa. Alfalfa does not start well in a loose, deep, mellow seed-bed, rather the seed-bed for alfalfa should be quite firm and only loosened about as deep as the seed is planted—an inch and a half to two inches. The disregard of these points by farmers in the preparation of seed-beds is one of the main causes for failure to secure successful stands of alfalfa.

A. M. TENNEYCK.

Interest in Improvement of Corn Advanced by Corn Contests.

PROF. V. M. SHOESMITH.

The farmer has for centuries shown considerable interest in live stock, and has organized associations of breeders for the purpose of furthering the interests of the respective breeds. He, however, has shown much less interest in the improvement of the farm crops. He has planted the ordinary seed of the neighborhood in which he lives, or perhaps has sent to another State, where the conditions are strongly contrasted to his own, and secured seed which is not at all suited for growing in his locality. He has not made a study of his corn, wheat, or alfalfa as he has of his live stock, and consequently knows very little about the best varieties of these crops to grow, best means of improvement, best methods of culture, etc.

The price of land and labor is increasing and our economic conditions are changing in such a way, that the best methods of farming must be practiced in order to get a fair return on our investments and the farmer is waking up to the fact that the best way to meet these changed conditions in the next few years at least, is by study and improvement of his farm crops and by better methods of culture for the same. He is now asking for the best seeds which are adapted to his conditions and is forming organizations for the improvement of corn and other farm crops. At the Kansas Experiment Station at Manhattan, eighty to ninety varieties of corn are tested each year, and the yield per acre of grain and stover are carefully taken, and notes are taken on the drought resistance, date of maturity, grade of corn, and other qualities which determine the value of the corn. Of the one hundred and twenty-five varieties tested in the past three years, which include about sixty-five varieties secured from other States, eight of the nine which have given the highest average yields are native corns, showing that

each State and each locality must work out its own questions in regard to the improvement of corn. It is necessary that we grow some of the native corns or adopt some of the recognized breeds of the older corn-growing States. Results at the Experiment Station indicate plainly that the former plan is by far the better.

If our native corns are the best for Kansas conditions the best of these should be included in the Corn-Breeders' Association's official list of pure-bred corn—provided they have strong type characteristics—as soon as their merits have been satisfactorily determined. This is what the Kansas Corn-Breeders' Association has planned to do. The objects of the Association, as enumerated in Article I, Section 2, of the constitution, are as follows: (1) "To establish improved types and breeds of corn which shall in the best possible way meet the needs of Kansas corn-growers in various parts of the State; (2) to promote the growing of pure-bred corn for seed purposes throughout the State of Kansas; (3) to furnish a means by which valuable native corn which shows purity of breeding may be recognized as pure-bred corn; (4) to establish a bureau for the inspection of the corn grown by the corn-breeders of the State and furnish certificates of type and breed for the same; (5) to protect farmers who desire to purchase pure-bred seed-corn, by supplying such information as will enable them to distinguish the different breeds of corn, and furnishing them with the names of reliable growers; (6) to aid in procuring the enactment of such laws and in doing such other acts as shall protect the growers of pure-bred seed-corn in their efforts to furnish farmers with seed-corn of the breed desired, and to further in any way possible the corn-growing interests of the State; (7) to establish a score-card or standard of perfection for each recognized breed of corn."

Article V., Section 1, specifies the manner in which a corn may be recognized as a pure-bred corn: "Any corn may be included as a pure-bred corn under the rules of this association by vote of the association in annual session assembled: (1) Provided, such corn has been bred and selected separate and apart from all other breeds, strains, or varieties for five years or more; (2) provided, that the board of directors, through at least one of its members or some competent inspector appointed by the board of directors, has carefully examined such corn in locality where grown as to its quality and uniformity of shape, size, color of ears, in regularity of kernels, in filling of butts and tips, in space between rows at crown and tips of kernels, in shape, size, depth and color of kernel, in percentage of shelled corn, in firmness of ear on cob, and in composition of kernels as indicated by the proportional size of germ, hard, flinty, and starchy portions, and provided also that the committee recommends to the association that such corn be recognized as a pure-bred corn; (3) provided, that the breeder of such corn brings one bushel of selected ears of it to the session of the association at which the association votes on the question of recognizing it as a pure-bred corn, and presents to the association a detailed description of the corn, including such history of the breeding and production of the corn as he may be able."

The association wishes to go slow in this matter and has not yet recognized any corn as pure-bred but has recommended the following native corns as desirable ones for growing in Kansas: Hildreth, yellow dent; Kansas Sunflower; Hammett White Dent; McAuley's White Dent; Mammoth White Dent; and Griffing Calico. The following varieties originated in other States have been recommended for planting, providing they have been adapted to Kansas conditions and have maintained their qualities after having been grown in the State for five successive seasons: Boone County White, Silvermine, Reid's Yellow Dent, Legal Tender, Hogue's Yellow Dent, Leaming, and Pride of the North.

The association holds each year in connection with its annual meeting a corn show, in which valuable prizes are offered for the best samples of corn. Expert judges are secured to place the awards and in this way the best corns are brought out and all the members present are given an object lesson in judging corn.

Another contest which the association has provided for is the largest yield from an acre of land, in which suitable prizes are offered. The contestants are allowed to use any corn and any methods of treatment they de-

sire. They are assisted in making the weights and measurements by a responsible person appointed by the Agricultural Department of the college, and one bushel of the corn is sent to the college as a moisture sample, so that all of the yields may be figured to the same (15 per cent) moisture content. Entries must be in by the 1st of September. In planning for this contest it would be well to observe the following suggestions:

1. Plant on the portion of your farm which has the best natural fertility.
2. Plant where the crop will not be liable to suffer from drouth or floods.
3. Plant on alfalfa or clover land or land that has grown either of these crops in recent years.
4. Unless the land has been made extremely fertile by being into alfalfa for many years apply a medium thick coat of well rotted manure, but do not plow under coarse or strawy manure.
5. Prepare a good seed-bed, especially if the surface planter is to be used.
6. Plant several acres in one field, so that the best acre may be secured from many.
7. Choose a variety which is known to be a good producer and is well adapted to your conditions.
8. Test your seed-corn for vitality, germinating kernels from each ear separately so that the ears which show low vitality may be discarded.
9. Choose ears which have kernels of regular shape and size so that they may be planted evenly.
10. Use an edge-drop planter or lister and test it before going to the field; if it fails to drop the proper number of kernels, more than five times out of a hundred, select your corn more carefully or change the size of the cells in the planter plates to more carefully fit your corn.
11. Cultivate your corn sufficiently often to keep the soil free from weeds and covered at all times with a soil mulch two to three inches deep.

For further information in regard to these contests address secretary of Corn Breeders' Association, Manhattan, Kansas.

Treating Seed-Corn.

Can you inform me how to treat seed-corn before planting to prevent crows and birds from digging it up? Cherokee County. J. C. SEVERIN.

Corn is sometimes soaked in kerosene and other materials for the purpose of keeping birds, gophers, and other animal pests away from it, but carefully conducted experiments show that this practice is not to be recommended, if the corn is soaked for a sufficient time to keep the pests away the vitality is largely destroyed and it is a better plan to get rid of the pests in some other way or to leave them undisturbed rather than to run the risk of a very thin stand on account of low vitality of the seed.

V. M. SHOESMITH.

Pasture Questions.

I have four acres of English bluegrass, sown a year ago, that is rather thin, and four acres adjoining, sown last September, that is coming up well, but is, I fear, too thin to pasture. Can I do anything to make a thicker pasture of it? Will it do harm to pasture it by June 1? The September sowing is very clean except where the grass is coming up thin.

Also, I have a small lot used as a cow pasture last year, and I wish to make a calf and hog pasture of it, I had planned to sow cane. Is there any other plant—grass or clover—that it will pay to sow with the cane? Butler County. H. L. MARSH.

It will not be possible to thicken up the stand of grass on the field in question by reseeding this spring. Early in September you may disk the fields and sow 5 or 6 pounds of alfalfa-seed per acre, or if you do not desire to use alfalfa in combination with the grass for pasture on account of the danger of pasturing alfalfa with cattle, you may disk early the following spring and sow clover with a little more grass-seed.

I would prefer *Bromus inermis* to English bluegrass for pasture, and by sowing early in the spring, just as soon as you can get on to the ground, you will stand a fair chance of getting the young grass and clover to start. Sow 4 or 5 pounds of clover per acre with 6 or 8 pounds of *Bromus inermis*. *Bromus inermis* may also be sown in the fall with the alfalfa or without it, provided you do not wish to use the alfalfa, and a little clover could be seeded early in the spring without cultivation, taking care to sow the clover so that it may be covered by the freezing and thawing of the ground and the

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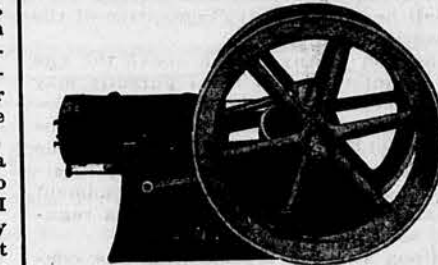
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action of early spring rains. English blue-grass does not thicken up and you can only get a thicker stand of grass by reseeded.

The fall seeded fields should stand light pasturing by the first of June this season.

There is nothing which may be sown and grown successfully with cane which will add much to the value of the pasture—some prefer to sow a little Kafir-corn with the cane. At this station we have tried sowing cow-peas with cane, but the rank thick growth of the cane usually causes a very dwarf growth of cow-peas. By sowing the cane rather than the cow-peas have a better chance, but the thinner sowing is not so desirable for pasture. Instead of trying to sow a combination of cane with some other crop it may answer your purpose to grow some other kinds of crops for pasture in the same field along side of the cane. Corn and cow-peas grow better together than cane and cow-peas. Sow about a half a bushel of corn and two to three pecks of cow-peas per acre. Also, cow-peas sown alone at the rate of 4 or 5 pecks per acre make excellent pasture for all kinds of stock. Grasses and clover could be successfully used for pasture in the same field with cane, but it will be necessary to seed the grass and clover the year previous in order to establish a stand and a sufficient growth to produce profitable pasture.

A. M. TENEYCK.

**Farmers' Institute at Hays.**

A fine audience gathered in G. A. R. hall at Hays City at 2 p. m., April 23, to hear the speakers sent out by the State Agricultural College, Peter Johnson called the meeting to order and introduced Mr. J. H. Miller, the institute secretary of the Agricultural College who, in a brief statement, made known the purposes, aims, and benefits of the Farmers' Institutes that are being organized throughout the entire State. Mr. Miller had previously appointed a committee of the prominent farmers of the county and had impressed upon them the advantages to be derived by every farmer and merchant in the county from the organization of such an institution. Acting upon his suggestions, this committee had drafted a constitution and by-laws, which Mr. Miller presented to the meeting.

**THE CONSTITUTION.**

Section 1. The name of this association shall be the Ellis County Farmers' Institute Association.

Section 2. The object of this association is to diffuse knowledge concerning the scientific principles underlying the processes in operation on the farm, and in the household; to improve the farm practice and the household management in the county; to awaken in the young a realization of the inherent charm of rightly managed rural life; and in any other ways to add to the material, moral, and intellectual advancement of the people.

Section 3. The officers of this association shall be a president, four vice-presidents, secretary and treasurer, the duties of whom shall be those usually devolving upon such officers, and they shall be the executive committee of the association.

Section 4. Any person above the age of 16 interested in rural pursuits may be elected to membership.

Section 5. This constitution may be amended by a majority vote of the members present at any regular meeting, notice of the proposed amendment having been given at a previous regular meeting.

Upon vote of the meeting, the constitution was adopted. Mr. Miller then read the by-laws prepared, which are as follows:

**BY-LAWS.**

Section 1. This association shall meet annually in Hays, at a time to be arranged by the officers, unless fixed by the association; or upon call of the executive committee.

Section 2. The expenses of this association shall be met by voluntary contributions, except as otherwise provided by law.

Section 3. The annual dues of members of this association shall be 25 cents for each member.

Section 4. Persons elected to membership shall sign the constitution and by-laws and pay an admission fee of—

Section 5. All topics presented at meetings of this association shall be open to discussion. In discussion no one shall speak longer than five minutes at a time, and when the time available is limited preference shall be given those who have not spoken, over those who desire to speak a second time.

Section 6. No noisy or otherwise disturbing features shall be permitted to

be in operation while papers are being presented or discussion of them taking place.

Section 7. These by-laws may be amended at any regular meeting of the association by a majority vote, and may be suspended by a two-thirds vote of the members present.

Opportunity was given for remarks, and none being offered, the vote of the meeting on the adoption of the by-laws as read was called for, the same being in favor of their adoption, it was so ordered.

**THE OFFICERS.**

The appointed committee next presented through Mr. Miller, the chairman, the following list of officers which, upon vote of the meeting, were accepted. J. R. Chittenden, president; Peter Johnson, Jr., secretary and treasurer; B. F. Réplogle, A. W. Copeland, Jerry Fellers, and Henry Schumacher, vice presidents. These officers compose the executive committee of the association.

**THE FARM DAIRY.**

The chairman then introduced Professor Oscar Erf, of the State Agricultural College, who addressed the assembly on the topic of "The Farm Dairy." Professor Erf in prefacing his remarks, dwelt upon the importance of the dairy proposition to the West, first, because of its profitability, and second, because it concerns the fertility of the soil. He cited instances where today, in the eastern parts of the United States, the soil has gradually become cropless, there being less fertile fields than twenty to fifty years ago, and that dairying had now become one of the first industries of the rural people, what small crops were raised being put into dairying. In foreign countries, especially European, small crops only are capable of being raised, and the bulk, if not all, of these go into the business of dairying. Another instance is that observed in the Mohawk Valley in New York State, where land had been farmed for 200 years. That part upon which the benefits of dairying were utilized is now worth \$200 an acre, while adjacent land that has become barren and unfertile because improper care of the soil, especially the absence of the dairy industry, has brought the worth of the land to 10 and 20 dollars an acre. Jefferson County, Missouri, once considered barren and possessed of a soil unprofitable for any farming occupation, was settled by Swiss emigrants, who, knowing nothing about farming except the dairy part, practiced their industry there and made a wonderfully fertile land of that county. And a last citation, that of the Cache Valley in northern Utah, where land subject to irrigation is worth \$200 per acre, small crops are raised, and dairying and sugar-beet growing are the principal industries that are making these people wealthy.

Now, if the dairy proves profitable on high priced land, why can it not be more profitable on cheaper land? Prof. Erf then gave statistics of a test made at the Agricultural College with 15 cows, whose milking was recorded, and costs of feed computed to ascertain the cost of the production of a pound of butter fat. The highest cost proved to be 24 cents and the cheapest produced butter-fat cost 8 cents per pound. As the usual price paid for butter fat is 22 cents per pound, one can readily observe that the average of the costs of production given, would give the farmer a nice profit. The average Kansas cow gives about 97 pounds of butter fat per annum. It is not extraordinary of a well cared for animal to produce 400 pounds of butter fat per annum. It is far better to keep fewer cows and give the few better care; it is more money to the owner.

How can we find five good cows? The dairy proposition is a business and one must sit down and figure. Prof. Erf suggested that a card be tacked up at a convenient place beside each cow, and a record of her milk and its test be kept for fourteen milkings. After seven weeks, weight and test another fourteen milkings, and thus on throughout a year, at the end of which time an accurate record of the cows productivity is obtained. To obtain the cost of the cows maintenance, weigh an average feed given her and compute from that the cost for the year. The only thing one can figure against butter fat, is feed.

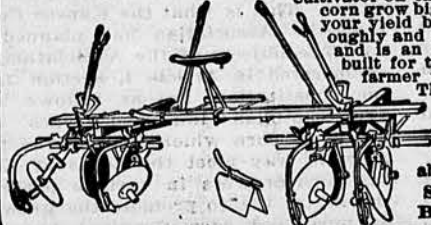
Then there is the important question of conserving the fertilizer produced by the cow. It is of imminent importance. "Right now in Eastern Kansas" the commercial article is being used. The produce of one cow can not be bought in the East now for \$30. Prof. Erf then directed his talk to

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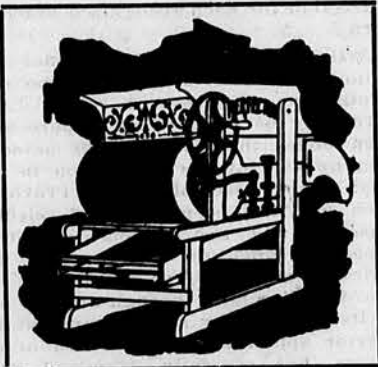
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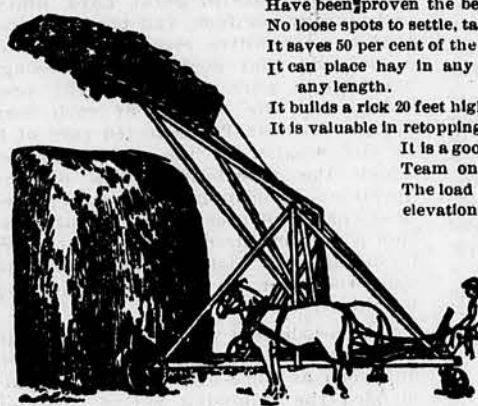
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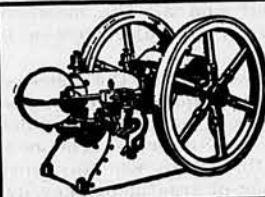
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the different types of milk cows, explaining with the aid of charts, the conformation found in the profitable dairy type, and where they could be found when examining any cow. He dwelt upon the care of the animal, both in wise feeding and gentleness in the milking process, explaining the increased good derived from observing this care. He urged upon his hearers the wisdom of beginning the business of dairying, even though on a small scale to start with; and that once launched therein, the fears of drouth or prairie winds need have no terrors. He reiterated the warning given in his first remarks, that continuous cropping of the soil with no variation of the crop, will sooner or later bring about a barren condition unless some such preventive, as dairying were introduced to balance conditions. The West needs more alfalfa, also more dairy cows.

Upon the conclusions of Professor Erf's address, the chairman presented Professor TenEyck, who spoke on

SOIL CULTURE.

Professor TenEyck is at the head of the Agricultural Department of the Agricultural College, and is a most able scholar and a tireless practitioner in his profession. His reception was no less cordial than that tendered Professor Erf when that gentleman arose to talk upon dairying.

Professor TenEyck opened his address by the statement that in farming, there is no set of iron-clad rules. While the principles of agriculture are about the same in all places, experiments and experience are necessary in the cultivation of the soil and the growing of crops, before conclusions can be determined. The three important considerations with any crops' improvement, are: The breed, or quality of the seed, the feed for the crop, and the methods of its culture. It has long ago been satisfactorily decided, that the hard, red types of wheat are best adapted for the West, but there are now no pure stocks being grown, owing to the quality of the seed having deteriorated by inattention to breeding or selecting. Farmers should give this question more attention. Select seed especially for seeding purposes, for special fields to produce seed stock, by planting a piece of the best ground to best grade of seed obtainable, and under best conditions possible to make for that special crop. Harvest at the right time and care for the grain in the right manner. Kansas conditions must make Kansas crops, and selection and culture are the secrets.

Good seed can not be obtained in one, two, or five seasons, but it takes fifteen to twenty years of careful growing to obtain results desired.

With regard to the feed of a crop, nitrogen, potash, and phosphorus are the three essentials that provide sustenance to the growing grain. Wheat requires a highly nitrogenous soil. These elements are soon exhausted from the soil and unless methods are introduced whereby new stores of them are replaced, the land soon ceases to be productive. For this reason, proper cultivation is of most vital importance.

In the sections of the west where light rainfall is the rule, the conserving of what moisture does fall is necessary to produce, or mature a crop. In the conservation of this moisture in the soil, we may say there are three steps to follow. First: Get water down in the soil. This is accomplished by plowing and discing, which opens the soil for water to penetrate, also prepares the soil reservoir for its reception. Second, repack, or firm up, the soil, connecting the furrow slice with the subsoil reestablishing capillary conditions, in which the surface soil draws the moisture to stimulate the plant life it grows. Ground should not be firm at the surface, but at the bottom of the seed-bed. Third: Keep a mellow surface by cultivation to prevent the evaporation of the moisture stored.

The seed-bed for all small grain should not be loose, but of firm body which gives the grain the best conditions for germination. As an example, a sample of dead wheat was presented, showing good rooting, and little stem. It had been seeded in soil that was well prepared, that is, plowed, and harrowed several times. The weather conditions of the winter and spring tended to air-slake the soil so that at present it is extremely loose. Under that condition, the wheat has died and, in all probability caused by the loose condition of the land, which aided wind, freezing, and drouth to accomplish its death.

A firm seed-bed is essential to securing a good stand. It likewise gives

more vitality to the crop, and aids it to withstand a dry winter.

Prof. TenEyck reminded his listeners that one season does not make results. One must judge from the average of many seasons, as to whether proper or improper cultivation, that is, good, bad, or indifferent, pays the farmer the best. There is no gainsaying the fact that in the long run, the good farming will always show up the best returns.

He dwelt upon the value of the disc-harrow to the farmer, and stated various uses it could be put to, especially his experience in preventing the blowing of soil. He urged also, the use of the packer to obtain the ideal conditions for the seed-bed.

Upon his own suggestion, he made his address brief so as to have more time for open discussion.

GEO. K. HELDER.

Stock Interests

PURE-BRED STOCK SALES.

- Dates claimed only for sales which are advertised or are to be advertised in this paper.
- May 17, 1906—Great sale of all beef breeds of cattle at Wichita Kans. D. R. Mills, Des Moines, Iowa, Manager.
- May 18, 1906—Combination sale of Herefords, South Omaha, Neb., W. C. McGavock, Mgr., Springfield, Ill.
- May 17, 1906—Combination sale of Aberdeen-Angus, South Omaha, Neb., W. C. McGavock, Mgr., Springfield, Ill.
- May 29-June 1, 1906—Sale of all beef breeds, Kansas City sale pavilion, D. R. Mills, Mgr., Springfield, Ill.
- June 7, 1906—F. M. Marshall, Blackwater, Mo.
- June 12-14, 1906—Sale of all beef breeds at Sioux Falls, S. D., D. R. Mills, Mgr., Des Moines, Iowa.
- June 19-20-21, 1906—Dispersion of Two Iowa Northhorns, E. B. Mitchell, manager, Clinton, Mo., at Kansas City.
- June 22-23, 1906—Sale of all beef breeds at Des Moines, Iowa, D. R. Mills, Mgr., Des Moines, Iowa.
- October 2-3-4-5, 1906—Glascow Live Stock Association sale of pure-bred stock, Glasco, Kans.
- October 10, 1906—H. L. Faulkner, Jamesport, Mo.
- October 17, 1906—W. J. Honeyman, Madison, Kans.
- October 17, 1906—Poland-Chinas, W. A. Pruitt, Asherville, Kans.
- October 18, 1906—Poland-Chinas, W. A. Davidson, Simpson, Kans.
- October 20, 1906—W. R. Dowling, Norcatur, Kans. Poland-Chinas.
- October 22-24, 1906—E. A. Eagle & Sons, Agricola, Kans.
- October 24, 1906—Poland-Chinas, Frank A. Dawley, Waldo, Kans.
- October 26, 1906—D. W. Dingman, Clay Center, Kans., Poland-Chinas.
- November 1, 1906—Frank Zimmerman, Centerville, Kans.
- November 6, 7, 8, 1906—Sale of all beef breeds, Kansas City Sale Pavilion, R. A. Ford, Lawson, Mo., Manager.
- November 8, 1906—T. P. Sheehy, Hume, Mo.
- November 13, 1906—Howard Reed, Frankfort, Kans.
- November 16, 1906—G. M. Heberd, Peck, Kans.
- November 20-22, 1906—Blue Ribbon sale of all beef breeds, D. R. Mills, Mgr., Des Moines, Iowa.
- November 27, 1906—L. C. Caldwell, Moran, Kans.
- December 4, 1906—Poland-Chinas, Lemon Ford, Minneapolis, Kans.
- December 11-12, 1906—James A. Funkhouser and Charles W. Armour, sale pavilion, Kansas City.

The State Experiment Station and the Kansas Stockmen.

EDITOR KANSAS FARMER:—Very properly the State Agricultural College and Experiment Station is working along varied lines, crop production, dairying, domestic science, horticulture, and general stock interests. The animal husbandry department has been at work on several very interesting experiments, in both breeding and feeding, and I thought the readers of your paper would be glad to know about these experiments. The great lack of good barns will prevent any extensive breeding investigations, but this will be remedied in time.

Five registered Tamworth sows, full sisters, were bred to different boars, one to a Tamworth, one to a Poland-China, one to a Duroc-Jersey, one to a Berkshire, and one to a Yorkshire. The progeny are now about a month old, and will be fed the same grain ration, and will be treated exactly alike until sold with a view to seeing which cross will produce the most economical feeders.

A notable experiment was conducted last year of great interest to men who feed cottonseed-meal to hogs. Two sows, a Duroc and a Poland-China, were put upon a ration of corn-chop and shorts and cottonseed-meal soon after bred, the meal being made a fifth of the ration. This was kept up until the end of the suckling period, and two weeks after the pigs were weaned they were given the same proportion of cottonseed-meal, soon raised to 25 per cent. Early in September the pigs began to lose flesh and two died. Then the cottonseed-meal was dropped from the ration and the pigs did well from then on. These pigs were kept in a dry yard without grass. Nobody has been able to explain the peculiar cause of cottonseed-meal poisoning, but



AVERAGE LENGTH PER LB. TO BALLS INTERNATIONAL HARVESTER COMPANY'S TWINE --- 503 3/4 FT

AVERAGE LENGTH PER LB. TO BALLS 1st COMPETITOR'S TWINE ..... 467 3/4 FT

AVERAGE LENGTH PER LB. TO BALLS 2nd COMPETITOR'S TWINE ..... 462 3/4 FT

AVERAGE LENGTH PER LB. TO BALLS 3rd COMPETITOR'S TWINE ... 452 3/4 FT

How LONG is Your Pound of Binder Twine?

DID that question ever occur to you while laying in your supply of twine for harvest? Makes a good deal of difference. "A pound's a pound the world around," it is said. But that rule does not measure the length, strength or quality of binder twine. And these are important to you.

The answer depends upon whose binder twine you buy. Of course competing sellers can make all kinds of assertions. It's not bald assertions you want, but proof as shown by actual tests. Now here is one test that has been carefully made—and what is better, one you can make yourself without any trouble. Five hundred feet is considered the standard for length of sisal and standard twines. When your twine runs below this you are not getting what you are paying for.

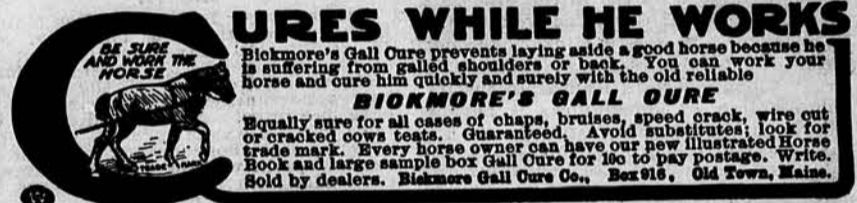
Ten balls each of the International Harvester Company's regular Standard twine, and ten balls each of three competitors' standards were tested. The above illustration shows that competitors' twines run from 467 3/4 feet to as low as 452 3/4 feet to the pound—while International runs above 503 feet to the pound. There's a great difference in pounds, as you will observe. Means a great difference in price also. The International Harvester Company twine is the least expensive twine, as you can figure at a glance. Frequently so called "cheap" twine is

offered at a reduction of a quarter of a cent a pound.

Accepting present prices as a basis for figuring, and considering one-quarter cent difference, the so-called "cheap" twine will cost one-half cent more per pound than the International Harvester Company twine. In these tests there is a difference of 51.5 feet to the pound in favor of the International Harvester Company twine. You'd be glad to buy 46 to 51 feet of binder twine for a quarter of a cent wouldn't you? That is the amount more that you get by paying the extra quarter of a cent for the International.

Which is the inexpensive twine? As to strength: These tests showed that while International Harvester Company twine averaged 59 and 9-10 pounds one competitor's barely reached the standard (50 pounds) and the other two fell below from 2 and 7-10 to 4 and 4-10 pounds. It is easy to see which twine is the longest, which the strongest and which is the least expensive. If you want to get a dollar's worth of twine for a dollar, then buy International Harvester Company twine: either Champion, Deering, McCormick, Milwaukee, Osborne, Plano or International brands. For prices on International Harvester Company twine—sisal, standard, manila or pure manila—see the local agent.

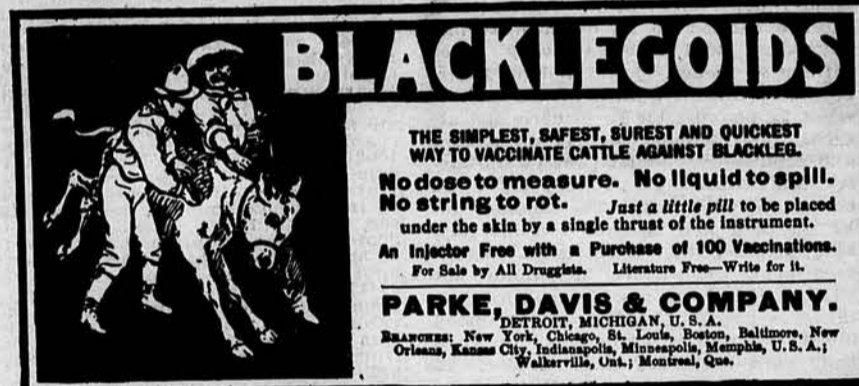
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# Home Departments

CONDUCTED BY RUTH COWGILL.

## The Man With the Hoe.

(Written after seeing Millet's world-famous painting.)

God made man in his own image, in the image of God made he him.—Genesis.

Bowed by the weight of centuries he leans upon his hoe and gazes on the ground, The emptiness of ages in his face, And on his back the burden of the world.

Who made him dead to rapture and despair, A thing that grieves not and that never hopes, Stolid and stunned, a brother to the ox? Who loosened and let down this brutal jaw? Whose was the hand that slanted back his brow? Whose breath blew out the light within this brain?

Is this Thing the Lord God made and gave dominion over sea and land; To trace the stars and search the heavens for power; To feel the passion of Eternity? Is this the Dream He dreamed who shaped the suns And pillared the blue firmament with the light? Down all the stretch of Hell to its last gulf There is no shape more terrible than this— More tongued with censure of the world's blind greed— More filled with signs and portents for the soul— More fraught with menace to the universe.

What gulfs between him and the seraphim! Slave of the wheel of labor, what to him Are Plato and the swing of Plectades? What the long reaches of the peaks of song, The rift of down, the reddening of the rose? Through this dread shape the suffering ages look; Times' tragedy is in that aching stoop; Through this dread shape humanity betrayed, Plundered, profaned, and disinherited, Cries protest to the Judges of the World, A protest that this is all prophecy.

O masters, lords and rulers in all lands, Is this the handiwork you give to God, This monstrous thing distorted and soul quenched? How will you ever straighten up this shape; Touch it again with immortality; Give back the upward looking and the light; Rebuild in it the music and the dream; Make right the immemorial infames, Perfidious wrongs, immedicable woes?

O masters, lords and rulers in all lands, How will the future reckon with this man? How answer his brute question in that hour When whirlwinds of rebellion shake the world? How will it be with Kingdoms and with kings— With those who shaped him to the thing he is— When this dumb Terror shall reply to God, After the silence of the centuries? —Edwin Markham.

## What Is Worth While?

How seldom we stop to consider what is worth while! So easy it is to follow our impulses and to seek to fulfill our desires. Wealth and fame allure us; ease and luxury entice us; and we lose much of the real joy of life. We take the froth; we grasp the bubble; we are content with the hull and throw away the kernel. How many spend their entire life and energy ministering to their temporal wants alone, living to eat and wear clothes, laboring for that which satisfieth not.

The extremes to which mankind go in eating and drinking, in the use of extravagant and superfluous clothing is robbing them of the true pleasures. Is it worth while to live merely to satisfy these abnormal desires? The body must be properly clothed and nourished, and great care should be given it, for it is the dwelling place of the soul. But these material things should be subservient to something higher. The mind, the soul, is eternal. Is it worth while to go through life, spending one's energies for the body and robbing and staining the soul till it shrinks and dies? There are too many who are spending their lives laying up for themselves dollars—just dollars. Money is a good thing. It supplies many of the needs of humanity and satisfies many laudible desires, but it perishes, and a life spent just to amass wealth is a failure. Nothing seems to shrink the soul to a mere shadow like a life spent in such a way. It shows in the face. You can see nothing but dollars written all over it. Then there is the man who lives,

that he may get more land, more hogs, more cattle, and more horses.

It is worth while and is worthy of praise to acquire these things—but not to live for them alone, neglectful of the things that are eternal. Too little time is given to quiet, sober thought. The mind needs food that it may grow. One should try to read something helpful each day, something that will broaden the mind, and enrich the soul, and should endeavor by kindly acts and words to help another soul to grow.

It is worth while to take time to rest. I verily believe that some people think it is wicked to rest. There are two extremes, those who rest all the time and think it is degrading to work, and those who work all the time and think it is indolent and lazy to rest. A woman remarked to another that she lay down for a little rest every day, when the latter remonstrated, telling her not to do so as she would get into a habit. It is a splendid habit to get into. Even Jesus when on earth went into the wilderness or upon the mountain to rest, and His example is worthy of imitation. Nature also has her seasons of rest. In the long run, time and energy are gained by occasional rests.

It is worth while to cultivate cheerfulness and contentment because these attributes encourage the growth of the soul. It is worth while to get acquainted with nature, for it is the work of God, and to study His work helps us to know Him better.

It is worth while to keep alive the heart's affections; to practice the little courtesies every day, that not only make our own lives richer but inspire and encourage others. Many a heart has become shriveled and cold for the want of the sunshine of love from those with whom they are thrown in contact and because they have neglected the actions that are prompted by affection.

Too many married people neglect the culture of love, and alas! it languishes and dies. They think they have not time to waste in such foolishness. They must make a living. It takes no longer to say a word in a gentle and tender way than to be brusque and harsh. The tones of the voice say as much as the words. The home, when the husband is lover and the wife responds, is the home where there is peace and the children are themselves kind and affectionate. It is worth while to take time for these things.

Anything is worth while that makes for happiness and peace, that broadens the mind and expands the soul.

## Children and Gossip.

It is often said that children are born mimics; and it is true that, with almost fatal facility, they follow the pattern that is set for them in the home. Since their wits are so keen, and their memories so retentive, it makes the mother's mission all the more difficult, especially in the matter of forming habits unconsciously. She must not only be sure that a child is learning to speak properly, but that the subject of his words is a proper one.

It is an easy thing to teach a child to gossip. When, for the sake of drawing forth quaint remarks, a mother encourages and even provokes little tales of playmates, she is cultivating in the child a loose tongue. To gain a child's confidence is one thing, and to let him believe you wish to hear trifling personalities is quite another.

Where shall a child learn careful discretion and a wise reserve in family matters if not in the home? He should never hear unkind comments or little private experiences detailed to casual visitors or in short-lived intimacies. Children are discerning and intuitive, and, if encouraged, will soon learn to pry upon their fellow creatures and keep a watchful eye out for the subject of an amusing tale.

One of the joys in a child's play is to surprise and astonish some one. They enjoy the applause of others, and, if this enthusiasm is aroused by relating some little happening in which a friend appeared to a disadvantage, it soon becomes his habit and pleasure to be on the watch for such things. The habit is hideously insidious, and will soon undermine a healthy nature.

An injudicious mother may, by mere thoughtlessness, lay the seed for this

## THE COMFORTER

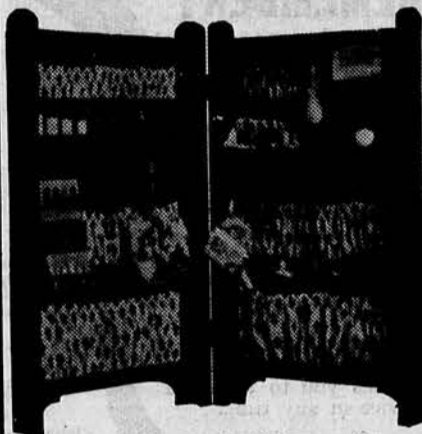
A congested vein pressing on a nerve accounts for the swelling, throbbing ache of

### Neuralgia

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free the circulation, allays the pressure and soothes away the pain.

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We receive such letters daily. There are no disappointments—it pleases them all. This graceful, handsome piece of furniture is produced by the hands of careful, painstaking craftsmen in our own little workshop. Each Cabinet is completely equipped with everything a woman needs to sew with, and here are fourteen pockets that hold all of her unfinished work—keeps all the sewing together. It's a perfect delight—"makes real pleasure out of real work"—and is just the thing any Kansas Farmer reader will enjoy. Write for our free descriptive booklet with prices for the different styles, and also please tell us the color scheme of your sewing room that we may suggest a cabinet that will harmonize with its furniture, fittings and decorations. We pay the freight.

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The Standard Incubator Co. PONCA, NEBRASKA

habit-growth by asking too many questions, such as, "Where did your friend go?" or "What was your friend's mother doing to-day?" or, perhaps, "Who was calling when you were there?"

Such "leaders" will induce a child, who is pleased with attention, to run on beyond the border of good breeding, and, be it said with sorrow, sometimes beyond truth.

A mother who had fallen into this unfortunate habit of "tittle-tattle" conversation with her little girl, brought home a friend one day with whom she had been lunching. "What did you have to eat?" asked the child, innocently, and, when rebuked, replied, with tears, "You always ask me when I go anywhere."

In contrast to this, is another mother who was heard to say to her daughter, after a story of wrong words and bad temper had been told, "Don't let any one know about it, but try to help her break up the habit."

A wise and high-minded mother will let her children realize that she is not interested in personal stories, that they do not lead to further talk, and the child will soon choose something that does wake responsiveness. Being easily molded and anxious to please, they will soon learn to give out what is required of them, which ought always to be the best.—The Housewife.

## Disparaging People.

There are people who disparage everything and everybody. They are constantly looking for faults and blemishes. There are homes where the children hear continual criticism from their parents, where the conversation is made up largely of adverse judgments of everybody and everything, where every character is dissected and the flaws rather than the good traits held up to view. Whether these judgments be just or not, the effect upon the children is the same—they learn suspicion, contemptuousness, and denunciation, three things quite unnatural to the child mind. As a result we have pessimists, made such not by harsh experiences of life, but by the habit of looking on the wrong side. Parents should remember that their view-points are those of the little ones, and will be theirs until each young life has its own experiences.

Impatient people water their miseries and hoe up their comforts; sorrows are visitors that come without invitation, but complaining minds send a wagon to bring their troubles home in. Many people are born crying, live complaining, and die disappointed; they chew the bitter pill which they would not even know to be bitter if they had the sense to swallow it whole in a cup of patience and water.—C. H. Spurgeon.

No one can do anything to-morrow. —Maltbie D. Babcock.



**The Young Folks**

Do All that You Can.

"I can not do much," said a little star,  
"To make this dark world bright;  
My silver beams can not pierce far  
Into the gloom of night;  
Yet I am part of God's great plan,  
And so I will do the best that I can."

"What can be the use," said a fleecy cloud,  
"Of these few drops that I hold?  
They will hardly bend the lily, proud,  
If caught in her chalice of gold;  
But I, too, am part of God's great plan,  
So my treasures I'll give as well as I can."

A child went merrily forth to play,  
But a thought, like a silver thread,  
Kept winding in and out all day  
Through the happy, golden head;  
Mother said, "Darling, do all that you can,  
For you are a part of God's great plan."

She knew no more than the twinkling star,  
Or the cloud with its rain-cup full,  
How, why, or for what all strange things are—  
She was only a child at school,  
But she thought, "It is part of God's great plan,  
That even I should do all that I can."

So she helped another child along  
When the road was rough to her feet,  
And she sang from her heart a little song  
That we all thought wondrous sweet;  
And her father—a weary, toil-worn man—  
Said, "I, too, will do the best that I can."

Our best! O children, the best of us all  
Must hide our faces away  
When the Lord of the vineyard comes to look  
At our tasks at the close of day;  
But for strength from above 'tis the Master's plan—  
We'll pray, and then do the best that we can.

—Margaret E. Sangster.

**Fleetfoot; the Autobiography of a Pony.**  
CHAPTER VIII.—THE LAST DAY.

After the snow had melted from each secluded spot and the spring had come and was deepening into the full glory of summer, the children began to talk of "the last day." A vague fear came over me when such a thing was mentioned, for I thought that by the last day they had reference to the end of the world. A sad experience such would be for me who was enjoying life so greatly to be called into some other realm and find myself separated from friends and old acquaintances.

My relief and pleasure were therefore excessive when I found that no more serious casualty awaited us than the closing of the term of school with "appropriate exercises." For two or three weeks before this remarkable event the pupils were in such a state of excitement in regard to their recitations and dialogues that they paid but small attention to me, who had hitherto been their chief source of amusement. Strange as it may seem, my feelings were not hurt in the least by the knowledge that I was being overlooked and neglected; the only trouble was the fact that I was getting quite fat and lazy for want of exercise, and by constant dozing under the spreading branches of the big maple tree in the corner of the yard. The tree was so far from the school-room that I missed much of what was going on inside its walls, but sometimes I could hear the sound of the organ with the accompaniment of many childish voices, and as the breeze notes rose higher and higher the breeze wafted in my direction the words:

"My country 'tis of thee,  
Sweet land of liberty,  
Of thee I sing."

The song went on and on, becoming sweeter and more melodious as the youthful singers caught the patriotic ardor of the lines, and when the beautiful song was finished the summer evening was drawing to a close. I remember well how the air had become a little cooler; from over the hill in neighbor Gray's pasture came the soft tinkle of bells as the well-trained cows wended their way homeward. Off in the distant timber a wild bird uttered a series of warning cries, but near me, all was silent and in my mind still echoed the closing lines of the children's song.

"Author of liberty,  
To thee we sing."

I could not get away from the words which impressed me so, for there, in the hush of evening time the marvelous influence of the Unseen had come over me, and I, dumb creature though I was, felt awed and wonder-stricken at the perfection of His plan.

In due time "the last day" came. About 7 o'clock in the morning Lyall arrayed in his Sunday's best, harnessed me to the buggy with the conspicuous

red running gears, and in honor of the occasion painted several small flags in my bridle.

We had waited only a few minutes in front of the house when out came Marcella radiant in a pink dress and wide hat of the same color, under the flapping brim of which hung a thick golden braid tied with a generous bow of pink ribbon. She carried a potted plant that looked cool and pretty with its shining green leaves and tiny white blossoms. She carefully made room for it in the buggy and then Mrs. Dearcot came out of another door with her arms full of flowering plants of different heights and constitutions. Some looked dark green and robust, while others had the sickly hue of the hot-bed, whose chief charm, I suppose, lay in their frailty.

Arriving at the school-house, we found all the pupils in holiday attire, and their number considerably increased since the day before, for many had brought younger brothers and sisters that they might also enjoy the entertainment.

The teacher and some strange young ladies came into the yard and assisted Marcella with the plants, while Lyall and Archibald Lamb took off my harness in spite of the repeated requests from the other boys for a ride behind "the blue racer."

"Pony is not a green racer, anyhow, young men," remarked Archibald, blandly, "and I think it would be more in order for you to retire and practice reading your essays, 'Kindness to Animals' and 'Cruelty vs. Humanity.'" Thus upbraided the lads departed in search of new fields to conquer, and when I was attended to, Lyall and Archibald joined them and in a short time the whole school was engaged in a vigorous game of "Andy-over" [antony-over]. But while the fun was at its height the bell rang and the serious business of the day was taken up.

At recess I was again harnessed and hitched to a trap which some one had left on the road. This rig had a long, narrow bed, and although it was very light indeed, I was by no means proud to find myself between the shafts. Lyall was the driver and we started off at breakneck speed in the direction of home. We drew up at the hitching rack and Lyall went into the house. He soon emerged bearing two baskets and his mama followed with one more. Lyall hurried off again, returning in a moment with a sack of apples. Just as he came in sight I guessed what he carried and becoming excited whinnied repeatedly, which performance of mine caused young master to laugh merrily as he dived into the depths of the sack and fed me as many apples as I could eat.

After assisting his mama and little Doris (who had by this time appeared on the scene with a small jar of pickles) into our odd vehicle, Lyall turned my head around and away we rattled down the road. But I was much subdued by this time, for I thought if Mrs. Dearcot was not humiliated by the experience I could stand it very well.

As we turned into the school-yard I could hear the clatter of dishes and the sound of many voices. The scene was a cheerful one, and it still remains clearly in my mind. The long tables, whose whiteness were relieved at frequent intervals by bright bouquets of late wild flowers, children running here and there, more hindering than helpful; women rushing in all directions with well-filled dishes; tall school-girls laughing, chattering and teasing one another. All were enthusiastic and wideawake; even the small toddlers sang snatches of songs and danced cake-walks for the amusement of their elders.

The dinner was eaten in merriment, and as I was not far away, every minute or so some good-natured individual would offer me chicken, pickles, or fruit, according to his or her idea of what was delicious. I had notions of my own concerning the fitness of things, and while some of the viands I accepted gratefully there were others I politely declined.

About 1 o'clock in the afternoon a carriage drove up, and it was whispered that the "county superintendent" had arrived. Soon quietness prevailed, and at the tinkle of a bell all were seated on the long benches on the shady side of the school-house. The low-backed organ was brought out and placed under a giant tree. Songs were sung, pieces were recited, and in one affair called a dialogue, it appeared that Archibald was in a great hurry to catch a horse thief, and to my consternation hastily slipped a bridle over my ears and spurred me several yards and back, at which performance great applause was evoked. Even the super-

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*L. J. Stickler*

TOPEKA BUSINESS COLLEGE, Topeka, Kans.

intendent seemed to enjoy it immensely. One of the numbers proudly announced by the teacher was, "Playing Go See, by two little girls." The two little girls in question proved to be Marcella and her bosom friend, Daisy Floyd. I hoped it would be a success for Marcella's sake, and I was not disappointed. Very quaint and sweet the pair of little lassies looked in their spectacles and long dresses, and the grown up language that they used was simply admirable. When the buzz which followed this act subsided, the superintendent arose, and after talking earnestly to one boy and three girls, who stood in a respectful row, he gave them each a white piece of paper, and then the secret came out. Those four young people were graduates of the eighth grade! After that the whole school (superintendent included) sang a stirring song which sounded like "Auld lad is sighing."

Then every one shook hands and congratulated the others on the part they had taken. The evening shades began to fall as we left the school-house which now looked lonely and silent.

Again there were "good-bys," and as the gate swung finally on its rusty hinges I am nearly sure that all of my friends felt as I did, "A joy akin to sadness," in bidding farewell to the last day.

**The Little Ones**

**Jack's Plowing.**

Out in the field in the sunshiny weather Jack and the farm-boy are plowing together. The dandelions in bloom by the wall Twinkle gaily at Jack; and the robins call From the apple-tree boughs, "Ho, Jack! look here!" While the chipmunks are chattering, "Come, Jack, my dear!" But Jack keeps on with his plowing. The plow is high, and the dimpled hands Must reach for the handles, 'twixt which he stands. The south wind lifts the loose brown rings 'Neath the sailor hat with its flying strings. And kisses the lips pressed tightly together, When out in the fields in the sunshiny weather Jack lends a hand with the plowing.

Up and down the long furrows brown He manfully trudges, a tiny frown On the smooth broad brow, so earnest is he. "We has such lots of work to do, Jim, hasn't we?" If I didn't help you, now what would you do?" Says Jim, "Master Jack, if it wasn't for you, I'd never be done with the plowing."

The sun grows hot, the lazy breeze Scarce stirs the boughs of the apple-trees. The soft earth clings to the moist little hands, When at last, at the end of a furrow, he stands And looks toward home. "My mama, I guess, Will be 'fraid 'though a man in the house, unless I did come home from plowing."

Such a dirty boy as runs home at last! Such a dirty boy! but mama holds him fast, And kisses the dimples that come and go As he tells of the morning's fun, till, lo! The white lids droop o'er the eyes of brown, And in the meadows of Slumber-town Jack still goes on with his plowing. —Mabelle P. Clapp, in Zion's Herald.

**A Kitten Story.**

The Schnabel children were the owners of a very fine old cat, which had a very enterprising family of kittens. A little while before we came away they presented us with one of these kittens; and it was in our parsonage for several weeks. When we came to move, we gave it back to them again; and it was very laughable to note the perplexity of that little cat on account of the change of language. When the Schnabel children would call the kittens to come to their dish of milk, they used some German words to attract them, whereupon all the little German cats would scamper away to their meal; but the little adopted one that had learned English would stand off by itself, the very picture of loneliness, until the "Come, Kitty," was spoken to it in good English.—Christian Endeavor World.

"Leave nothing to what is called 'luck' and you will generally be what is called 'lucky.'" "Listen to others, pro and con, then use your own judgment. Final success is due to independent good judgment."

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**Lots of energy is needed to keep up the pace. In the struggle, the man with the strong body and clear brain wins out every time.**

**The man of to-day needs something more than mere food; he needs a food that makes energy—a food to work on.**

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**Whoever you are—whatever you are—wherever you work—Uneeda Biscuit.**

NATIONAL BISCUIT COMPANY

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**Club Department**

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

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

**Our Club Roll.**

- Women's Literary Club, Osborne, Osborne County (1902).
- Women's Club, Logan, Phillips County (1902).
- Domestic Science Club, Osage, Osage County (1898).
- Ladies' Crescent Club, Tully, Rawlins County, (1902).
- Ladies' Social Society No. 1, Minneapolis, Ottawa County (1898).
- Chalisco Club, Highland Park, Shawnee County (1902).
- Cultus Club, Phillipsburg, Phillips County (1902).
- Literateur Club, Ford, Ford County (1903).
- Sabean Club, Mission Center, Shawnee County Route 2 (1899).
- Star Valley Women's Club, Iola, Allen County (1902).
- West Side Forestry Club, Topeka, Shawnee County, Route 8 (1903).
- Fortnight Club, Grant Township, Reno County, (1903).
- Progressive Society, Rosalia, Butler County (1903)
- Pleasant Hour Club, Wakarusa Township, Douglas County (1899).
- The Lady Farmer's Institute, Marysville, Marshall County (1902).
- Women's Country Club, Anthony, Harper County.
- Taka Embroidery Club, Madison, Greenwood County (1902).
- The West Side Study Club, Delphos, (1902).
- Frontis Reading Club, Cawker City, Mitchell County (1903).
- Cosmos Club, Russel, Kans.
- The Sunflower Club, Perry, Jefferson County (1903).
- Chaldean Club, Sterling, Rice County (1904).
- Jewell Reading Club, Osage County.
- The Mutual Helpers, Madison, Kans. (1906).
- West Side Study Club, Delphos (1903).
- Domestic Science Club, Berryton, Shawnee County (1903).
- Mutual Improvement Club, Vermillion, Marshall County (1903).

**ART PROGRAM.**

**Jean Francois Millet.**

- I. Millet's life at Barbizon.
  - II. "The Angelus."
  - III. "The Man With the Hoe."
  - IV. Reading: "The Man With the Hoe."
- I. Barbizon is familiar to those who have been using the art programs, as a quaint little village in the forest of Fontainebleau in France, the camping ground of artists. In the last of these

art programs Millet was left in Paris with a second wife and a growing family. It was on the eve of the Revolutionary War, and he was extremely poor. The cholera broke out and he decided to leave and come to this quiet and picturesque place, to which he and his family had to walk. Here he was happier near field and forest, but necessity compelled him to work from morning till night. He remained in this place twenty-six years—the rest of his life.

II. Almost every one has seen a copy of this famous picture—"The Angelus." Once seen it can not be forgotten. There is something entrancing about it. The father is standing cap in hand, his head bowed; the mother bowed and hands folded, at the sound of the evening bell that calls for prayer. It is said that this picture represents the three chief factors of life—labor, love, and worship. This picture was first sold for one hundred dollars, dire necessity, but later brought the highest price of any modern picture.

III. This picture, "The Man With the Hoe," is not pleasing to look upon but it is very interesting and true to French peasant life. Weary with toll he has straightened himself up and is resting his weight with his hands upon the hoe for a moment, to breathe.

IV. This poem, which is printed in the Home Department this week, may be read in connection with the study of this subject. It is interesting to know what Edwin Markham thought as he studied the picture. He is an American poet and lived in California the early part of his life and began to write poetry for a California paper at a very early age. This is his best known poem.

**Domestic Science Club.**

A club has been organized at Berryton, known as "The Domestic Science Club," which holds its meetings every two weeks at the home of the members in alphabetical order. At the last meeting a program was rendered consisting of roll call, answered with items of interest to the housekeeper. The following papers were then read: "Housekeeping and Home-Making," by Mrs. C. A. Kline; "Hygienic Care of the Bedroom," Miss Lucy Popenoe; talks on "Germs Most Common in the Home,"

**CHEAPER FARM LAND**

**SOUTHWEST OFFERS BEST OPPORTUNITIES FOR SECURING HOMES**

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

Unusual opportunities exist along the lines of the Missouri Pacific-Iron Mountain Route. The rich, alluvial, delta lands and river bottom lands of Southeast Missouri, Eastern Arkansas, Louisiana, and Texas, capable of producing 60 bushels of corn, a bale of cotton, 4 to 6 tons of alfalfa, 150 bushels of potatoes, and other grains, vegetables and hay crops, can be bought for \$7.50 @ 15 per acre. When cleared and slightly improved will rent for \$4 @ 8 per acre cash.

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

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Mrs. J. C. Banta; and the "Arrangement of an Ideal Apparel Closet," Mrs. Mac. Quail.

At the next meeting roll call is to be answered with spring-time poetry. "Beds of Our Forefathers" will be read by Mrs. Harvey Faust, with a display of old quilts, spreads, and sheets. The following papers will be read: "Care of the Cellar," Mrs. E. W. Adams; "Moths," by Mrs. A. A. Adams; after which will follow the review of "The Review of Reviews," Mrs. Chas. Oneals; and special music.

The committee is to arrange a program for the coming two months. Lunch, consisting of three articles, is allowed to be served at each meeting.

L. MABEL WATERS, Sec. and Treas.

Another new club has been added to our Club Roll—"The Domestic Science Club," of Berryton. I am always glad to hear of new clubs, especially this kind, for I know that means better wives, better mothers, better homes, and frequently better men and women in the future generation.

The State Federation of Women's Clubs will meet at Lawrence the second week in May, beginning with the 5th and continuing to the 11th.

## The Veterinarian

We cordially invite our readers to consult us when they desire information in regard to sick or lame animals, and thus assist us in making this Department one of the most interesting features of The Kansas Farmer. Kindly give the age, color, and sex of the animals, stating symptoms accurately, and how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply all letters for this Department should give the inquirer's postoffice, should be signed with full name and should be addressed to the Veterinary Department of The Kansas Farmer, Topeka, Kans., or to Dr. C. L. Barnes, Veterinary Department, Kansas State Agricultural College, Manhattan, Kans. If in addition to having the letter answered in The Kansas Farmer, an immediate answer is desired by mail, kindly enclose a 2-cent stamp. Write across top of letter: "To be answered in Kansas Farmer."

**Alting Steer.**—I have a steer, among some I am feeding, that refuses to eat corn at all; he did not get stiff; keeps jumping out of corral, and slobbers all the time and is poor; he has been this way for a month.

**Answer.**—From the symptoms given would think that the steer had some teeth that were giving him trouble, and would have the animal's mouth examined by a competent veterinarian. There may be some foreign substance lodged in the tongue or cheek.

**Swelling on Mare's Side.**—I have a 7-year-old mare that has a swelling on one side just behind girth, that appeared first last fall. It kept getting larger until it reached the flank and extended to forelegs and breast. She got very stiff; punctured the swelling in several places and clear water came out until the swelling went down; used saddle on her before it healed inside, and it swelled again; it kept swelling until it broke, and discharged about 2 quarts of pus; it has never gone clear down since. She keeps fat easily, and feels good.

**Answer.**—I think the condition of your animal originally was a dropsical one, and later developed this condition of pus formation. I would advise you to continue the use of condition powder, and heal the sore by using a good local disinfectant.

**Mare with Stiff Foot.**—My 13-year-old brown mare has a stiff right foot; the whole foot seems to be so stiff that she can't lift it over anything, and if it is wet is much worse; if she has to pull it out of the dirt she gets helpless in that foot. I used a little blue stone water on it, but it didn't seem to help it. What would you advise?

**Answer.**—I would advise using a poultice of antiphlogistine on the stiff foot. Change the poultice as often as it gets dry, and I think you will have no trouble in removing the stiffness.

**Horse Out of Condition.**—I have a bay 10-year-old horse that does not thrive, and is getting thinner all the time. His hair is not in good condition. He eats heartily, but is not doing well. Weighs 1,100 pounds.

**Answer.**—I would advise you to have the horse's teeth floated, and then give the following condition powder: One ounce of pulverized nux vomica, 2 ounces pulverized gentian, 2 ounces pulverized iron sulfate, 4 ounces common salt, 6 ounces pulverized glycyrrhiza root, 2 ounces fenugreek; mix with 10 pounds of oil-meal, and give a heaping teaspoonful night and morning in ground feed.

**Actinomycosis (Lump Jaw).**—I have a 5-year-old steer that has had a lump on his jaw for a year. Please give me a remedy.

**Answer.**—Would advise giving potas-

sium iodide internally in half drachm doses daily, for ten days, then withhold for three or four days and give again; give the potassium iodide in half a pint of water. Open the lump on the jaw freely, and inject tincture of iodine daily into the cavities.

**Indigestion in Colt.**—I have a 2-year-old colt that has never done well since being weaned. Hair is thick and fine, very thin in flesh, appetite good; drinks a good deal; seems uneasy; lies down a great deal, and at night moves and stamps her feet as though in pain. Last summer she broke out with little pimples like fly bites. Eyes are bright and she is always ready to eat. What is the trouble with her?

**Answer.**—You can hardly expect favorable results in treating your colt for several weeks as the trouble has been of long standing. I would judge that the animal had indigestion, and would recommend the following tonic: One and one-half ounces of nux vomica pulverized, 2 ounces pulverized gentian, 4 ounces pulverized iron sulfate, 2 ounces pulverized fenugreek, ½ pound sulfur, 6 ounces common salt, 8 ounces pulverized glycyrrhiza root; mix well with 10 pounds of oil-meal and give an even teaspoonful night and morning in ground feed; withhold the tonic for three or four days every four weeks, then begin again.

**Warts on Calf.**—I have a calf that is getting some warts on head and neck. What can I do to get rid of them?

**Answer.**—I would advise cutting the warts off; then burn the raw surface with a hot iron and heal the wounds with some of the common disinfectants you may have on hand.

**Scours in Calves—Enlarged Knee Cap.**—Had two calves take scours before Christmas; one got so weak it could hardly get up, but finally got all right. The other is worse than ever now. What is best to feed him? Have given him egg and flour. How shall I treat him?

**Also have a horse that split the hide on knee cap; it spread open and the leaders became inflamed; it healed well but is enlarged a good deal. Is it too late to help with a blister?**

**Answer.**—I would advise giving the calf half a pound of epsom salts dissolved in a quart of water; 12 hours after giving salts give a teaspoonful of tincture of opium in a cupful of scalded milk. Repeat the dose of opium in twelve hours if the scours are not checked by that time.

**It may pay to blister the enlarged knee cap, even at this late date, as it may reduce the swelling on the horse's leg.**

**Lame Pigs.**—I have a brood sow with pigs that I turned on the alfalfa; in a week she got lame in one hind leg; she can hardly get up, and will not eat. I turned some other pigs in the next day and one of them is the same way. What is the cause and a remedy?

**Answer.**—I am unable to tell the exact cause of the lameness unless they have had too much alfalfa. Would advise taking them off the alfalfa and see if that will not remedy the trouble. Digestive disorders will often bring about the symptoms you mention.

**Indigestion and Paralysis.**—What is wrong with my pigs? I have 9 head of pure-bred Chester Whites about 3 months old. I fed them ship stuff with corn-chop in slop all winter. Ten days ago I turned them onto a 100-acre wheat and pasture land; they were all fat and thrifty; three days ago I noticed something wrong as they came up in the evening; they would suddenly drop to the ground with front parts, get up and walk a few feet and drop again. They are very jerky and seem sore about the shoulders. Have taken them off the wheat but they seem no better. I have given a little turpentine in the slop. What is the trouble and a remedy? A. D. H. Sumner County.

**Answer.**—I think the trouble is a digestive disorder, and paralysis brought about by feeding too much corn. Would advise using bran and ground oats in the slop; better give the pigs an absolute rest from a grain ration for about a week, before you begin giving the oats and bran.

C. L. BARNES.

The Alpine Safe and Lock Co., of Cincinnati, Ohio, are making an article of great value to every farmer. This is a fire-proof safe. They are made in all sizes and prices to suit. Valuable papers and cash may be preserved in a good steel safe against loss by fire or burglars, and the cost of the safe is comparatively small. The Alpine Safe and Lock Co. is now advertising for agents to sell their safes and vaults. They offer good pay and require no previous experience. Here is a chance for a good man who wants to make good money. Mention THE KANSAS FARMER when you write.

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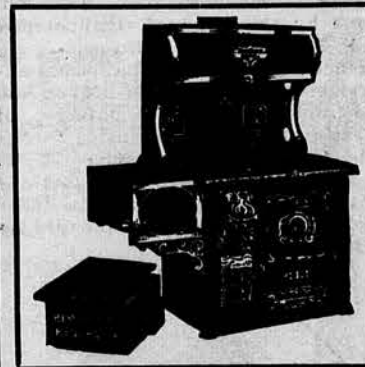
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Would you hesitate to buy a stove or range of us by mail if you were confident you could save \$15 to \$40 by so doing, and at the same time run no risk? That is exactly what we are offering you. A stove or range second to none in the world at a price far less than your local dealer can even buy such a range. We are able to save you many dollars, in your range-buying for three reasons, viz.:

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We do not claim that we manufacture the only good range on the market to-day, but we do say, we will sell you a stove or range, far superior to any other on the market to-day, at a price far lower, and terms fairer than those offered you by any other stove manufacturer or dealer.

It is a well-established business principle to buy where you can buy the cheapest. QUALITY CONSIDERED. Your home merchants do this EVERY TIME. Not one of them will pay you a cent more for the articles you offer them than they can procure the same thing for of OTHERS, WILL THEY?

Then why pay your local dealer fifteen to thirty dollars more for a range than you can procure a better article for of us? Our "FACTORY TO FAMILY" plan enables you to buy of us by mail safer than of your local dealer.

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Miscellany

That College Y. M. C. A. Building—Select Your Place in Table Below.

The following extract from a letter written by Mr. J. P. Anderson, of Agenda, is worthy of reflection:

"Having thought for some time to send my mite to you for the Y. M. C. A. fund, now after reading the letter of Mr. Dukelow, I will forward it at once. No doubt a great many Kansas farmers feel willing and able to help this worthy cause but yet continue to delay, and some will even forget."

There is no doubt as to the ability of the farmers of the State. They have been prospering year after year and no class of people is better able to contribute. Mr. Anderson states that there is also a willingness among the farmers to "help this worthy cause" but the trouble lies in the fact that they will "continue to delay, and some will even forget."

The following table of suggested donations may help some to choose the amount suited to their ability and interest:

SUGGESTED AMOUNTS FOR THE RAISING OF \$10,000.

Table with 3 columns: No. of subscriptions, Amount, Total. Rows include 20 subscriptions at \$100, 20 at \$50, 40 at \$25, 200 at \$10, 600 at \$5, and miscellaneous gifts totaling \$1,000.

The object of this canvass is to interest a large number of different people throughout the State. If farmers do not respond quite generally, there will be but one other way to raise the amount, and that will be to prevail upon some individual to give the entire sum needed.

The following have sent in subscriptions to the fund:

Table listing names and amounts: Previously acknowledged \$22,805.50; W. R. Stubbs, Lawrence 100.00; J. P. Anderson, Agenda 5.00; Alvah Sheldon, Eldorado 1.00; L. D. Connell, Altoona 2.00; R. N. Richardson, Altoona 5.00; Thos. D. Hubbard, Kimball 5.00; S. G. Painter, Beverly 1.50; Albert Rundle, Stafford 2.00; E. A. Croll, St. Paul 2.00; Mrs. F. B. Healy, Tyrone, Ok. 2.00; "Friend," Richland 1.00.

Total \$22,935.00

THE INTERNATIONAL SUNDAY-SCHOOL LESSON.

(Copyright, 1906, Davis W. Clark.) SECOND QUARTER. LESSON VI. Matthew 13:24-30; 36-43. May 6, 1906.

The Parable of the Tares.

It is true yet in a sense that without a parable Jesus does not speak to the world. His whole system is a dark saying to the human mind naturally. Open eye, attentive ear, understanding heart, alone apprehend His meaning. There is need of moral earnestness which cries: "Explain to us the parable."

The parable asserts that there is no existence of good or evil in this world apart from personality. Moral qualities have human souls as their only sphere. Virtue and sin root and bring forth fruit in men. Thus Jesus says, "The good seed are the children of the kingdom, but the tares are the children of the wicked one."

are the children of the wicked one. Evil roots itself in human souls. . . . As we look out and see a thousand million growing together as wheat and tares in this vast field, this age-long antagonism, this dread and poisonous admixture, we exclaim in language of the servants of the householder, "Didst thou not sow good seed? From when hath it tares?" Jesus dismisses this purely speculative question with the declaration, "An enemy hath done this."



J. T. WILLARD.

Director Kansas Experiment Station, and Professor of Chemistry, Kansas State Agricultural College.

In length of service in the college, Professor Willard is excelled by Professor Walters only. He is a graduate of the college in whose service he has labored so long.

The ninth annual announcement of the Colorado Chautauqua at Boulder, Colorado, has just come to our desk. It is the most complete book of its kind the association has ever issued, containing detailed information regarding railroad excursions, carriage drives, mountain climbs, natural scenery, platform program, summer school courses, living expenses, cottage and tent rentals, and many other items of interest to all prospective tourists.

Manure Doubled in Value.

The American Harrow Co., of Detroit, one of the oldest concerns engaged in the manufacture of agricultural implements, claim that their American Manure-Spreader doubles the value of every bit of manure put on a piece of land.

Harrow Co. offer to let any responsible farmer use one of their Manure-Spreaders a month FREE. Their plan is to send you a spreader (freight prepaid) and you can take it home and use it a month just as if it was your own—bought and paid for.

If you don't find the spreader exactly as represented, all you have to do, at the end of the month, is to take it back to the railroad station and tell the agent to ship it on to the American Harrow Co. at their expense.

If you do find the spreader as claimed the American Harrow Co. offer you long-time terms—practically whatever time you wish—to pay for the machine. No offer could be fairer than this and these people sell all the manure-spreaders they can make on the same plan.

This plan is very popular with farmers because the American Harrow Co. can be depended on to do exactly as they agree. Judging by the tremendous increase in their business during the past few years, these American Manure Spreaders must be about the best going.

The cover of the book is rough, heavy, seal paper embossed in raised letters with the word "American" in shining black on a bright red background. Every farmer should have a copy of this book in his farm library for the valuable information it contains.

Drop a line to the American Harrow Co. to-day saying you want it, and it will come by return mail postpaid. Address American Harrow Co., 10130 Hastings Street, Detroit, Mich.

Important Tests of Binder Twine.

With the coming of summer, the careful grain-grower begins to think of harvest time. He long ago learned that it does not pay to postpone all his plans until the rush of the harvest season is full upon him, and there is no time to think—no time for anything but fast, hard work.

It will not be many weeks—not many days as a matter of fact—until "the sound of the reaping machine will be heard in the land." And with the thought of this comes one of the most important questions of the time—binder twine.

Probably no subject is of more practical interest to the grain-grower. It is one of the many matters of detail of farming that become "big things" at one time and another.

The binder twine may not be thought as important as the harvesting machine all the year round. But on its good qualities depend largely the success of the harvest.

Its strength or weakness may mean the saving or loss of many dollars not only in money but in time.

It is therefore not remarkable that the merits of the various binder twines on the market have been the subject of so much discussion not only in the farm papers, but among grain-growers wherever and whenever they get together at this season.

In this connection, the International Harvester Company announces the result of some interesting tests.

Twines of four makes—the International and three others—were taken for comparison by measurement, and trials of strength.

It was shown that the International ran to 503.8 feet to the pound, while the other twines averaged from 467.2 down to 452.3 feet to the pound.

Ten balls of twine from each lot were tested for strength.

A capacity for supporting fifty pounds is regarded as the standard, experience having taught that twine that breaks at less than this strain is not reliable in the field.

Figures for the test of strength show that while the International twines averaged a capacity for standing 59.3 pounds, one of the others barely reached standard strength (50 pounds), and the other two fell short from 2.7 to 4.4 pounds.

Grain-growers generally will be interested in these practical tests, as both amount and quality of twine bought for the approaching harvest are matters on which full information will be desired.

The De Laval Booklet.

The De Laval Separator Co., of New York and Chicago, have lately issued a beautiful little booklet descriptive of the latest styles of their cream-separators. This little book is full of information and may be had free by addressing the Chicago office.

The De Laval Separator has long been before the public, and the fact that there are now in daily use about a quarter of a million of these valuable machines speaks volumes for their popularity and usefulness.

Look at the remarkable offer of buggies and harness made by the Erhardt Carriage & Harness Company, of Atchison, Kans. This is an old, reliable firm that has been doing business for many years.

Advertisement for CONGO ROOFING featuring a logo with a monkey and text: 'The best Ready Roofing you can buy. It's easy to lay, attractive, durable, water-proof. Can be used anywhere under the sun and will give the best of service.'

Advertisement for 'A Home For Half the Money' featuring 'OREGON WASHINGTON IDAHO AND THEIR RESOURCES' and 'A. L. Craig, ROOM 212 WORCESTER BLDG., PORTLAND, OREGON.'

Advertisement for 'The Kansas State Agricultural College' offering courses in Agriculture, Domestic Science, General Science, Mechanical Engineering, etc.

Advertisement for 'STARK FRUIT BOOK' showing natural colors and accurately describing 216 varieties of fruit.

Advertisement for 'SEED CORN' featuring 'Boone County White, Farmers' Interest, Reid's Yellow Dent, Improved Leaming and Riley's Favorite'.

Advertisement for 'World's Premium Seed Corn, HOWARD COUNTY WHITE' awarded first and third premium at State Corn Show in St. Louis 1904.

**Horticulture**

**The San Jose Scale in Kansas.**  
 PRESS BULLETIN NO. 150, ENTOMOLOGICAL  
 DEPARTMENT, EXPERIMENT STATION,  
 KANSAS STATE AGRICULTURAL  
 COLLEGE.

While no systematic survey of Kansas has been made to ascertain the absence of the San Jose scale in the State, the evidence available to date has given the impression that the pest has not occurred to any recognizable or at least serious extent within our boundaries. The testimony of orchardists and nurserymen in convention in the various horticultural meetings, the reports of those engaged in the inspection of nurseries so far as this work has gone, and the correspondence of the entomologists in the State schools has not disclosed the presence of the true pest, and many supposed cases have been ascertained by competent students to have been other forms of injury.

A month ago, however, there was received at the Kansas Experiment Station, from Mr. B. S. Williams, of Dodge City, an apple twig, crowded with the true San Jose scale, and as the indication was that of a seriously infested tree, a visit to the locality was made to determine the extent of the attack. An examination of the locality showed several apple-trees of ten years of age thickly incrustated with the insect, and in most of the residence lots in the surrounding quarter of the town the condition was the same, the fruit-trees of all sorts showing the insect in greater or minor abundance. Here and there was noted a tree of the apple, pear, or peach so thoroughly attacked that it was dead or dying, while others showed the presence of the scale in smaller quantities, permitting the relief of the trees if prompt measures were taken for the destruction of the pest.

Besides the sorts of fruit-trees above named, inspection showed the following to be more or less infested: Plums of all sorts both native and cultivated, cherries of several horticultural groups, apricot, plumcot, grape, currant, rose bushes of several types, and among ornamental or shade trees, Osage orange, cottonwood (one case), and Russian mulberry. So far as ascertained the scale did not occur on box-elder, black locust, honey-locust, elm, althea, the honeysuckles, Virginia creeper or spiraea, though plants of these sorts, among others, were growing among or near infested fruit-trees. On the whole, however, the infestation was as serious as might be feared anywhere, including within the limit of the area about a dozen blocks in Ward 2 of the city, with scattered cases outside of this general section. An attempt to locate the site of the original infection was without result, owing to the general and even distribution of the pest within the area indicated. It was also found that suspicion could not be placed with likelihood of proof upon any nursery, as the trees were largely purchased from agents, and the places where they were grown were not known originally, or were not on record.

For the information of those who have not seen this insect, it may be described as a small sap-sucking louse, active when first born, but soon becoming immovable on the bark, leaf, or fruit, and secreting at this stage a flattened protective scale over its body, losing at the same time its more obvious insect structure, and devoting its energies thereafter to feeding on the sap of the plant, and producing young in great numbers. In cases where the scale lice are in moderate numbers, they will occur in small colonies or groups, or scattered singly over the bark, presenting then no striking mark to the vision unless one is looking for them. When scattered in this manner on younger bark, the tissue is generally reddened around them, a feature which lends to their more ready recognition. The adult females are the largest scales, slightly irregular in their convexity, of a dull gray or lighter, with a distinct boss or center of a different color and appearance. Young scales, also abundant at the present season, are smaller, more distinctly circular, and of a darker color, often nearly black. All sizes occur together in the clusters, frequently so crowded that the true color of the bark is not visible for the scurfy covering consisting of the numerous insects.

In May the female gives birth to young, and these travel over the tree in search of unoccupied spaces, which they occupy and then begin the secret

tion of the protecting scale as above. With several indeterminate broods each season, the new growth is covered as fast as made, and the tree is not able to outgrow its enemy. The injury is done by the abstraction of the sap from all parts of the tree by the hundred thousand beaks throughout the entire growing season.

Owing to the form and feeding habits of the scale lice, the effective agents in their destruction are practically limited to the various washes and sprays that act as contact poisons or corrosives. Among these are crude petroleum, coal-oil, resin washes, and combinations of lime, sulfur, and salt, among others. Several of these are open to the objection that while destructive to the insects they also endanger the tree. Others can not be relied upon to kill the insects in all stages, necessitating the frequent repetition of treatment. At the present date the leaf and flower buds being expanded, perhaps as satisfactory a treatment as any is the application of a spray of moderately strong kerosene emulsion, previously preparing the trees by pruning off all that can be spared of the branches, to reduce the surface to be operated on. The application of this spray should be several times repeated during the spring and summer. This will not be completely effective, but may serve as a temporary check. It should not need saying that every infested twig and all other parts should be carefully picked up and burned, to prevent the further spread of the pest.

A more satisfactory treatment is the application, in the dormant season of the tree, of a wash or spray of the lime, sulfur, and salt mixture, as employed with good effect in eastern orchards. With this material, treatment must be deferred until the tree is again dormant, as the buds are now expanded.

The presence of this serious pest in Kansas orchards, even in the single case noted, is a warning that our State should be no longer without the protection of an effective inspection and quarantine law controlling the sale and shipment of trees and other nursery stock liable to transport this dangerous insect, and providing for the inspection of orchards, generally, over the State.

E. A. POPENOE,  
 Manhattan, Kans., April 24, 1906.

**This Cleveland Cream-Separator**



is attracting attention throughout the country. First, because it is sold direct at factory prices, and on a real free trial. No money in advance, no note to sign. Second, it is the all ball bearing separator.

Third, it is the first separator that uses aluminum in its skimming device. No matter how many cows you have, nor what your arrangements for marketing your milk or butter-fat, you ought to write at once for the catalogue of this machine. You can get the catalogue by addressing the Cleveland Cream-Separator Co., at Cleveland, Ohio.


**A Good Book Free.**

At the time of the good roads meetings on the Santa Fe Railroad the company had printed a large number of pamphlets upon the use of the King split-log drag. This pamphlet was written by Henry Wallace, of Des Moines, Iowa, and was reproduced by the Santa Fe for special distribution in their good-roads campaign. There still remains on hand a number of these useful little books, and they are free for the asking. Drop a postal to Wesley Merritt, Industrial Commissioner, Santa Fe System, Railway Exchange, Chicago, Ill., and you will get one. They are free as long as they last.

**Amatite—A Heavy-Weight Roofing.**

The resisting ability of a roofing depends largely upon the amount of material there is in it—not upon the thickness nor upon the number of layers, but upon the actual density of the roof—that is upon its weight. A light-weight ready-roofing may be as thick as Amatite, but if it is not as heavy, roll for roll, it can't have as much good stuff in it. Amatite weighs as much as roofings that cost three times its price. Free sample and booklet on application to the nearest office of the Barrett Manufacturing Company, New York, Chicago, Cleveland, Allegheny, Kansas City, St. Louis, Minneapolis, Philadelphia, New Orleans, Cincinnati, Boston.

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are best for general use, are grown in the very heart of the region once known as the Great American Desert, at an altitude of over two thousand feet above sea level and without irrigation. They are time tried and drought tested and have proved producers of profitable crops of both grain and forage. Write for list of specialties and prices.  
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We furnish insurance at cost; 14 years of successful business. Why carry your insurance with others when you can get it in this company at much less cost? Write for full particulars of our plan.

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## Dairy Interests

### Grading Cream.

OSCAR ERF, PROFESSOR OF DAIRY HUSBANDRY,  
KANSAS STATE AGRICULTURAL COLLEGE.

(Continued from last week.)

#### RANGE OF PRICE.

As a rule extras sell from one to four cents higher than firsts, depending somewhat on the supply, but the supply is never equal to the demand. Firsts sell from two to three cents higher than seconds, and seconds sell proportionately higher than thirds, but the demand is seldom equal to the supply. Since there is such a range in the market price of butter of the first and second grades, there should be a similar range between the first and second grades of cream, for it requires as great an effort to produce first-grade cream as to produce first-grade butter.

According to the score card, the flavor of butter is valued highest, and since the flavor of the butter depends on the quality of cream, received, there should be a difference of at least four cents, and more legitimately a difference of five cents, between the first and second grades of cream. Likewise there should be a difference of not less than two cents, and more legitimately three, between the second and third grades.

Good flavor can only be produced by the proper fermentation, which requires a pure cream, hence the precautions that are necessary in handling cream to secure a good-flavored butter must begin from the time the milk is drawn. Any taint incorporated in the cream will follow the butter through all its stages of manufacture and onto the market, where it is discovered and a correspondingly lower price is paid for it. From this we see that the care of the cream while in the producer's hands will have a marked influence on the ultimate value of the butter.

The body of the butter can be governed largely by temperature, hence it is chiefly within the butter-maker's power to regulate this one point, which is also true of the color, salt, and package. The producer is held responsible for one point only, namely, flavor.

With this in view the development of the dairy business in Kansas depends on the care the farmer will give to his milk and cream and the care the creameryman will give to his butter in order to produce a product of the finest quality and one that will command the highest price. Cream or milk which tends to lower the grade of butter will lower the price of butter, and hence will make the dairy business less profitable.

#### THE GRADING OF CREAM.

With the above conditions before us it would be a legitimate plan for creamery companies, to grade the cream they receive on a similar basis, and instead of paying a uniform price for butter-fat regardless of the quality of the cream, it should be graded and the cream having the best quality should receive the highest price. In this way a man, exercising great precaution in producing pure cream by building better barns, better milking stables, by getting better cows and feeding them better and keeping them healthier, by exercising great care in milking, by running the milk through a scrupulously clean separator and by cooling the cream and delivering it often in good sanitary cans, will receive a reward for his efforts and his expense, and will be encouraged to do even better. Nearly all other farm products, such as wheat, corn, live stock, butter, and cheese are graded and sold on their merits, so it is only fair to the man that sells cream that he should have a similar condition presented to him.

#### GRADES OF CREAM.

Cream should be graded as follows:

First grade, second grade, and third grade.

First-grade cream should be pure and sweet, containing not less than .2 of one per cent of acid, should have no undesirable flavors or odors, should be fresh (not older than three days), should contain not less than 30 per cent of butter-fat.

Second-grade cream may be slightly sour, containing not more than .3 of one per cent of acid, not older than five days, should contain no taints, and should have not less than 30 per cent of fat.

Third-grade cream may be somewhat stale, somewhat tainted, and may contain less than 30 per cent of butter-fat.

When cream is pure and sweet, containing less than .2 per cent of acid, it indicates that the cream has been produced under sanitary conditions and must have been kept cool. Since the lactic acid is developed from the milk-sugar, and since the bacteria do not grow in a cold temperature, it further indicates that there are small numbers of bacteria in the milk.

Cream produced under clean conditions does not sour rapidly, owing to the fact that there is a less number of bacteria in the cream. To detect the above amount of acid a test is used which is known as the alkaline test.

#### DESCRIPTION OF THE ALKALINE TEST.

The equipment for the alkaline test consists of an alkaline solution, an indicator, and a graduated cylinder or burette, a 50 cubic centimeter pipette with which to measure out the cream, and a cup. The principle consists of the fact that the alkali neutralizes the acid of the cream. Any alkali can be used in making this standard solution, for instance, lime, lye, soda, etc. However, for testing purposes these must be chemically pure, hence if lime is used the solution is added to sour milk and the acid unites with the lime, forming a substance which is neutral, neither alkaline nor acid. The alkalinity of the solution must be known, and hence it is termed a standard solution. If a certain alkali neutralizes a certain acid and this is a constant factor, and the strength of the alkaline solution is known and the point at which both neutralize each other can be determined, the amount of acid in the milk can be calculated. The way to determine the neutralizing point is by means of an indicator which turns pink if the solution is alkaline and turns white or colorless when the solution is acid. This indicator is commonly known as phenolphthalein. The alkali can be bought in bottles from any chemical laboratory and can be shipped to the farmers at a nominal cost and is made by dissolving four grams of sodium hydroxide, to which enough distilled water has been added to make one liter of solution. This makes what is commonly known as a 10th normal solution.

With the apparatus and solution at hand, measure 50 cubic centimeters of cream with a pipette into a beaker or cup, then with the same pipette add 50 cubic centimeters of pure distilled water, then add 5 drops or more of indicator. Fill the burette to the zero mark with alkaline solution, but before doing this be sure and see that the burette is absolutely free from water and acid. Probably the best way is to rinse the burette with a little of the solution. Now add the solution to the cream in a slow manner until you notice that the pink solution appears very reluctant in destroying the pinkish color on stirring. Then this neutralizing solution should be added drop by drop only. The moment the cream remains pink the acid has been neutralized. The number of cubic centimeters added to the cream is read on the burette, and from this the percentage of acid can be calculated in the following manner:

Number of cubic centimeters of alkali multiplied by .009, divided by the number of cubic centimeters of cream, times 100.

Example: If it requires 32 cubic centimeters of alkali to neutralize 50 cub-

# WHY YOU SHOULD BUY A DE LAVAL CREAM SEPARATOR

**BECAUSE**—It will save you at least \$10 to \$15 per cow every year of use over any gravity setting or skimming process, and last you at least twenty years.

**BECAUSE**—It will save you at least \$5 per cow every year of use over any imitating cream separator, and last you from five to ten times as long.

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ic centimeters of cream, what per cent of acid is there in the cream?

The formula would be:

$$\frac{32 \times .009}{50} \times 100 = .576, \text{ the per cent of acid in the cream.}$$

**CREAM SHOULD NOT HAVE UNDESIRABLE FLAVORS OR ODORS.**

The causes that produce undesirable flavors and odors in cream are as follows:

1. Cream produced from abnormal milk which has been drawn from diseased cows.
2. By feeding the cow moldy or partially decayed feeds.
3. By keeping the animal in uncomfortable conditions, which causes her to become feverish or excited.
4. By milking a cow in a filthy stable, or near decomposing material.
5. By allowing cows to wade around in mud puddles or cesspools and then milking the cow without washing the udder.
6. By milking the cow with dirty hands, or by milking on the hand in order to wet the teat. Under all conditions milk the cow with a dry teat. If the teat is chafed or sore use vaseline instead of milk to moisten it.
7. By milking into filthy pails or pails that have not been scalded with hot water. In washing the milking utensils it is advisable to use hot water and some washing powder, and finally rinse with boiling water or steam over a steam jet.
8. By running the milk through an unclean separator. (See bulletin No. 131, Kansas Experiment Station.) The separator should be taken apart and washed ever day. If the separator is used twice a day it is preferable to take it apart and wash it both times, but if time does not permit this, at least five gallons of warm water with some washing powder should be run through it, followed by a gallon of

boiling water without the washing powder.

9. By running cream into a filthy can. Care should be taken that cream should be put into a clean milk-can that has previously been scalded and cooled.

10. By not cooling the cream to a proper temperature. After cream has been separated it should be cooled to at least 60° F., and lower if possible. When putting cream from two milkings together care should be taken that the cream added last is thoroughly cooled.

11. By not properly covering the cream-can with some cloth in the summer when driving long distances to the station.

12. By letting cream set around at stations for a long period of time.

#### DELIVERY.

Cream should be fresh and should be delivered at least twice a week in winter and three times a week in summer. Cream kept for longer periods of time, unless kept on ice, will produce a rancid flavor when churned into butter. Hence, a man delivering cream must deliver as often as this or his cream will not be first grade.

#### PER CENT OF FAT.

First-grade cream should contain not less than 30 per cent of butter-fat, for the reason that cream with this per cent of butter-fat will keep better and costs less to transport than cream of a lower per cent of fat, and the dairyman will recover more skim-milk.

Some causes that tend to lower the per cent of butter-fat below 30 per cent in cream separated with a cream-separator are as follows:

The variation in the per cent of butter-fat of hand-separated cream is very great if operators are not careful in operating their machine uniformly. There are several factors that influence the test of cream from separators. The first and probably the most important cause that reduces the per cent of but-

# Sharples

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Investigate the low can and enclosed gears. Tubulars have neither oil cups, tubes, nor holes—they oil themselves. They have bowls without complicated inside parts—hold the world's record for clean skimming, durability, capacity, easy turning and easy washing—save half the work—greatly increase the amount and quality of butter—easy wholly unlike all other separators. Write for catalog R-165

THE SHARPLES SEPARATOR CO.,  
Toronto, Can. West Chester, Pa. Chicago, Ill.

ter-fat in cream is by turning too slowly, not giving the bowl enough speed. Anything that tends to change the speed of the bowl from one separation to another influences the per cent of butter-fat in the cream. A uniform speed of the bowl is obtained by turning the crank at a given speed at all times and giving the crank an equal pressure at all points in its circuit around the axis. The speed at which the machine should be run is indicated by the manufacturer. Follow these instructions and count the revolutions each time the machine is used, to be sure that the speed is maintained.

If milk is warm the cream will be thicker, if cold it will be thinner, other conditions being equal. Milk immediately after it is drawn from the cow has the proper temperature at which to separate.

Milk should be run through a separator at a constant rate. If milk is fed into the separator at an uneven rate, if at times the flow of milk is stopped, the thickness of the cream will be greatly influenced. The faster milk is run through a separator, the thinner will be the cream, other conditions being equal.

The amount of water or skim-milk used to flush out the bowl will naturally tend to decrease the per cent of butter-fat by diluting the cream with water or milk.

There is a cream screw or skim-milk screw in each separator for the purpose of changing the thickness of cream when desired. By this it can be so regulated as to skim thin or thick cream, and when once set, if all other conditions of the separator are uniform, it will produce nearly a constant per cent of butter-fat.

These principles hold true in all cream-separators and explain why the per cent of butter-fat sometimes runs below 30 per cent.

While all the points mentioned herewith can be known without depending upon the judgment of any particular individual, as for instance, determining the amount of acid in the cream, the frequency of hauling the cream, per cent of butter-fat in the cream, etc., there remains, however, one point still unsolved which is directly dependent on expert judgment, namely, the flavor of the cream.

A cream may be acid and have a pleasant flavor and odor, and on the contrary a cream may be sweet and have a bad flavor. As yet no test has been found that will determine the flavor absolutely except the taste and smell of man. Hence, while it is a simple and practical problem for all creameries to adopt the schemes as suggested above, in due justice to the producer as well as the creameryman, there should be in as many places as the business would permit, men who are competent and efficient in judging flavor and odor of cream. Such a man in order to give universal satisfaction must have some experience in the judging of cream. He must furthermore have some knowledge of the physical and chemical properties of milk and cream. In short, he should be a man well versed along dairy lines in order to impart information to those who need it, and at the same time stimulate and keep up the progress in dairying.

While this method would be only practicable in localities where dairying is carried on quite extensively, there is, however, a second manner of handling cream, namely, to have each farmer send his cream directly to the creamery. This is a very satisfactory method to the creamerymen and also to the producer if the producer is lo-

ated on a direct shipping point to the creamery, but wherever transfers need to be made, the grading of this cream at the factory would be unjust to the producer since the railroad company is quite often responsible for delaying shipments at transferring station. To overcome this point it is quite necessary in order to raise the standard of butter to operate refrigerator-cars for the purpose of transporting cream long distances, and it is hoped that in the near future dairying will develop to such an extent as to make it profitable to use refrigerator-cars for transporting cream.

CONCLUSION.

The dairy department of the Kansas State Agricultural College inaugurated this scheme of grading cream nearly two years ago. It has given universal satisfaction to the patrons and has produced a marked improvement in the quality of the cream. On account of the practicability of this scheme, and its legitimacy both to the producer and consumer, we feel that every creameryman and dairyman should indorse and help to promote the idea of grading cream upon its merits.

The Profitable Dairy Cow.

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

CARE AND FEED OF THE DAIRY COW.

Seven years had passed by since young Winslow had returned to the farm. The herd had gone through a remarkable change. The process of selection, culling out, and breeding up the butter yield had increased from 130 to 400 pounds a year. The merits of the herd were becoming known the whole country round and the farmers of the neighborhood really began to take a just pride in the Rockdale herd. In fact, the herd was known far more than locally. Enterprising agricultural journalists had discovered its existence and had advertised it over a wide territory.

One day the neighbor who had purchased the first bull John had placed at the head of the herd, made a call and engaged in conversation. He was a fairly good man, but like many other persons owning stock, give his herd less careful attention than good business warranted. He not only knew the Winslows laid great emphasis on the importance of correct breeding, but he was well aware that the Rockdale herd was carefully fed and attended to. He recognized the fact that his own cattle looked thinner in flesh, more ill-kept, dirtier, and more starved than that of his now prosperous neighbor.

After passing the customary comments on the weather and crops, John remarked: "Mr. Lee, that bull you purchased of us sired a likely lot of calves for you, didn't he?" "Yes," said Mr. Lee, "he certainly did. The heifers now in milk are better than anything we have ever owned before. Still, it seems to me that our herd is not doing as well as it should, and our cattle are not in the condition that yours are. I have been wondering how much feed and care had to do with this difference. Our barn is fairly warm and comfortable, and yet our cattle do not look thriving." "How about your feeding and growing?" inquired John. "I feed plenty of hay and straw," was the reply, "but I never have felt that we could afford to feed much grain. The cost is too great. We don't use much provender, I know."

"It is sort of curious," remarked the junior member of the Winslow firm, "but I have just been studying over a pamphlet which I received from the Cornell University Experiment Station. You know that there are in the different States agricultural experiment stations that are working in the interest of the farmer, studying problems in soils, fertilizers, feeding stock, etc. Each of these stations publishes several times a year bulletins as they are called, which tell about their experiments. These are free to those who desire them. The professors at the agricultural college used to make students study over some of the more important bulletins, and since I graduated I have been getting bulletins from some of the States whose publications I thought would help me. Now, in this bulletin Professor Wing and Mr. Ford tell of 'An attempt to increase the fat in milk by means of liberal feeding,' which is somewhat in the line our conversation has fallen into. They planned an experiment to find out whether a herd of dairy cows previously kept under adverse conditions could be made more profitable by better feeding and care. So they went out into the country near the station and found a herd of 21 cows with a reputation of being poorly fed

Dairy Talks by the EMPIRE Dairy Maid.

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It's to your interest to get a cream separator that does not wear out.  
It's to your interest to get a separator that will get all the cream. Consequently,  
It's to your interest first to investigate and then to get an

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It will make more dollars for you than any other separator. No question about it.  
It's to your interest to investigate. Won't you, then, send your name and get some of the Empire books? They are good reading.  
Please tell how many cows you keep and what you do with the milk. Address

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4. "Figger it out for Yourself."  
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- 3rd—Enclosed frame. Free from dust. Injury resulting from machine impossible.
- 4th—Perfectly noiseless.
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- 6th—The bushings made of phosphor bronze—the most serviceable material for the purpose. Fitted and guaranteed to be accurate to 1/1000 of an inch.
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Weather Bulletin.

Following is the weekly weather bulletin for the Kansas Weather Service, for the week ending April 30, 1906, prepared by T. B. Jennings, station director:

CLIMATOLOGICAL DATA FOR THE WEEK.

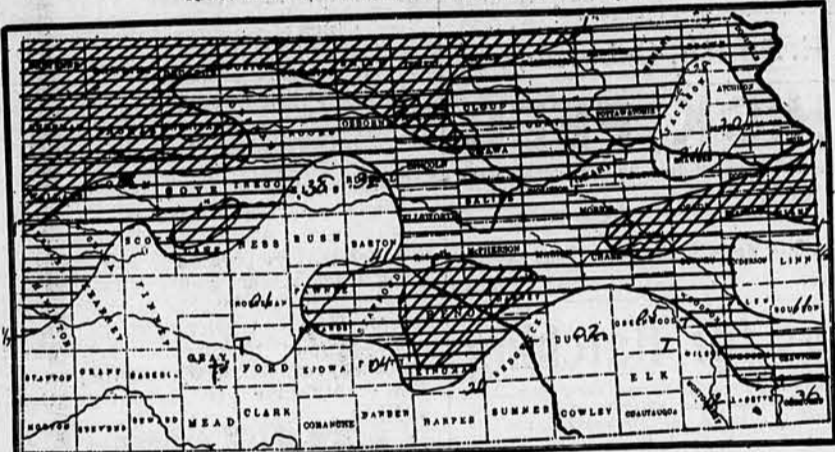
Table with columns: Maximum, Minimum, Mean, Departure from normal, Total, Departure from normal. Rows include Western Division (Cimarron, Colby, Cooldidge, Dodge City, Dresden, Farnsworth, Gove, Hoxie, Jetmore, Norton, Scott) and Middle Division (Burr Oak, Clay Center, Concordia, Eldorado, Ellinwood, Hays, Macksville, Medicine Lodge, Pratt, Republic, Russell, Salina, Wichita).

Table for Eastern Division including Atchison, Burlington, Columbus, Cottonwood Falls, Emporia, Fall River, Frankfort, Grenola, Independence, Iola, Kansas City, Olathe, Oswego, Pittsburg, Topeka.

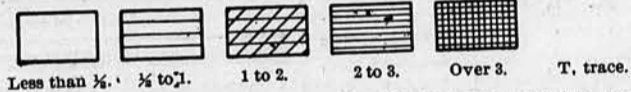
GENERAL CONDITIONS.

The temperature rose rapidly during the first days of the week, reaching the maximum on the 23d in the western and central divisions, and on the 24th in the eastern division. On the 23d the temperature in the northern

RAINFALL FOR WEEK ENDING APRIL 28, 1906.



SCALE IN INCHES:



half of the western and middle divisions reached 90° and over; the highest being 94° at Colby and Farnsworth. The minimum temperatures occurred in the western division on Friday and Saturday but in the middle and eastern divisions the minimum temperatures generally occurred on Sunday. On the 27th and 28th the temperature fell below 40° in the southern and western counties of the western division; the lowest temperature, 33°, occurring at Cooldidge. The precipitation generally occurred on the night of the 26-27th and on the 27th. It was above normal in the northern western and northern counties; it was also above normal in Lane and Reno Counties and in Chase, Lyon, Osage, Douglas, and Johnson Counties. The precipitation was quite light in the southern counties, several of which report no rain. Hailstorms occurred in the middle and eastern divisions on the 27th, some of them being severe enough to damage windows and gardens.

RESULTS IN DETAIL.

EASTERN DIVISION.

Allen.—The week was warm with abundant sunshine. The mean of the maximum temperatures was 80°. There were high southerly winds on the 24th and 27th. Thunderstorms occurred on the 26th and 27th. A trace of hail fell in the storm of the 26th, but in that of the 27th considerable hail of large size fell and damaged fruit-trees and crops a few miles southwest of Iola. Many of the hail stones measured one and a fourth inches across; near the western part of the county the hail is reported to have fallen to the depth of one inch. Anderson.—High winds blew the first part of the week. Summer temperatures and clear weather prevailed the first of the week, but it was cooler and partly cloudy the latter part. Atchison.—The first five days of the week were cloudless. Friday afternoon heavy rain, accompanied by very large hailstones, fell. In two hours, .89 of an inch of rain had fallen. A high wind blew on the 24th. Brown.—There were five clear days during the week. The highest temperature was 87° on the 24th and the lowest was 43° on the 22d. Rain, accompanied by hail, fell. This was the first rain since the 12th. Chase.—Clear weather prevailed every day except the 27th, when .90 of an inch of rain fell. There were very high winds on the 23d and 24th. Chautauqua.—It was clear every day except the 27th, and there was no rain although it is beginning to be needed. Seasonable temperatures were experienced. Cherokee.—The first of the week was clear but on the 26th rain and quite heavy hail fell.

It was a little cool the morning of the 28th, the minimum being 45°.

Coffey.—There was fine weather this week with five clear and two partly cloudy days. There was a light rain on the 26th, and .65 of an inch of precipitation on the 27th.

Crawford.—The weather was clear and warm up to the 27th. There was a heavy thunderstorm the night of the 26th and considerable damage by lightning. This was accompanied by a beneficial rain of .88 of an inch.

Elk.—Warm clear weather was enjoyed most of the week with a maximum temperature of 87° on the 23d. There was no rain. The temperature fell to 44° the morning of the 28th.

Greenwood.—The weather was warm and clear most of the week, with maximum temperatures in the eighties up to the last day. There were high winds on the 24th, 25th, and 27th. Hail fell on the 27th but the rainfall for the week was very light.

Jefferson.—It was a very pleasant week with cloudy weather on but one day, the 27th, when .20 of an inch of rain fell. The maximum temperature was 90° on the 24th.

Johnson.—This has been ideal weather. The first four days were clear but on the 27th 1.30 inches of rain with some hail fell.

Labette.—The maximum temperatures ranged in the eighties five days of the week, making very warm weather for the season. The night temperatures were rather high too. The first five days were clear but windy.

Lyon.—The fore part of the week was warm and clear, the latter part cooler and partly cloudy. On the 24th 1.60 inches of rain fell in thirty minutes. This was accompanied by high wind and some hail.

Marshall.—The 23d and 24th were very warm with the maximum temperatures in the nineties. It was clear up to the 26th. The latter part of the week was cloudy and cool, and on the 27th .35 of an inch of rain fell.

Montgomery.—It was a warm week with but few clouds. The highest temperature was 90° on the 26th. There were high winds on the 24th and 27th. The 27th ended with a thunderstorm and some hail. The week closed cool with a minimum temperature of 45° on the 28th.

Osage.—It was a warm, clear week with the maximum temperature above eighty every day but the 23d. There were good rains the latter part of the week.

Riley.—Summer weather prevailed with a maximum temperature of 90° on the 23d and 24th. There were some beneficial showers the last of the week.

Shawnee.—The week was mostly clear with a beneficial rain on the 27th which was accompanied by a little hail. High winds occurred on the 24th and 25th. The temperature was much above normal the fore part of the week but it turned below normal the last two days.

Wilson.—The week has been clear and dry with strong southwest winds on Tuesday and Friday, and thunder and lightning and a trace of rain on the latter day.

Woodson.—The week has been generally clear with only sprinkles of rain. The maximum temperature was 93° on the 24th.

Wyandotte.—Beautiful sunny days with high temperatures characterized the week. Friday evening a severe thunderstorm oc-

curred, followed by clearing and cooler weather.

MIDDLE DIVISION.

Barber.—This has been a dry week with fairly warm weather and several windy days. On the 27th it turned cooler with a north wind.

Barton.—The week was very windy. There were high winds on the 23d, a dust storm on the 24th, and a thunderstorm on the 26th. There were two days clear and five partly cloudy. The maximum temperature was 90° on the 23d; .41 of an inch of rain fell on the 26th.

Butler.—The highest temperature was 86° on the 24th, and the lowest was 45° on the 28th. There was a light shower on the 27th.

Clay.—It was very windy on the 23d, 24th, and the morning of the 25th. The week was mostly cloudy. It was warm the fore part of the week, but it rained on the 27th and was cooler till the week ended.

Cloud.—The temperature ranged from 2° to 16° above the normal on all days but the 28th, when it was lightly below normal. There was a sprinkle of rain on the 24th, and some good showers on the 26th and 27th. It was clear the first day but from that time the cloudiness gradually increased.

Dickinson.—There were high winds on the 24th and 25th, and a fine rain of .70 of an inch on the 26th.

Ellis.—The atmosphere was hazy and smoky on the 22d and 23d. On the 24th there were high winds and a dust storm. The 25th was a clear day. Scattered thunderstorms occurred on the 26th. The 27th was showery and cooler with northwest winds. It cleared up on the 28th, but continued cool. The maximum temperature was 93 on the 23d.

Ellsworth.—The maximum temperatures ranged in the eighties and nineties till the last two days, when cooler weather was felt. There was .75 of an inch of rain on the 26th with a thunderstorm.

Jewell.—There were four days of high winds and three thunderstorms. It was generally warm and sunny up to the 26th, when 1.98 inches of rain fell.

Kingman.—Clear weather with maximum temperatures in the eighties prevailed every day up till the 28th, when it became a little cooler. A minimum temperature of 42° was observed the morning of the 28th. There was some hail on the night of the 26th.

McPherson.—Rain and heavy hail which cut down some fruit occurred on the 26th. It was cool the last of the week but there was no frost.

Ottawa.—The weather was windy and very drying the first of the week. It was cooler

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HEREFORDS
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with plenty of rain the last of the week. The highest temperature was 90° on the 23d. Pawnee.—The weather was warm with strong southerly winds the first of the week. On the 26th it rained and the next day northwesterly winds made it much cooler. Pratt.—Warm weather and high winds prevailed the first of the week, but it was cooler the last two days with a light shower and a thunderstorm on the 27th. The highest temperature was 89° on the 23d, and the lowest was 44° on the 28th. Reno.—Clear, sunny weather with high temperature was experienced till the 26th, when increasing cloudiness began, followed by a rain of 1.45 inches the 27th and cooler weather. There was a little hail the night of the 26th and 27th. Republic.—The fore part of the week was clear and warm with high winds. On the 26th and 27th showers fell with thunder and hail on the 27th. Some very threatening clouds were seen on the 27th and some damage from wind was reported. Russell.—The temperature was considerably above normal the first of the week with a maximum temperature of 93° on the 24th. It rained on the 26th and 27th, and this was followed by cooler weather. Saline.—The temperature reached 93° on the 24th, but it gradually became cooler from that date. On the 27th there was a severe thunderstorm and some hail. .74 of an inch of rain fell on that date. Sedgwick.—It was a warm week. The temperature averaged 6° above the normal. There were five clear days and two partly cloudy ones. Traces of rain fell on the 24th and 26th. Stafford.—The maximum temperature ranged in the eighties on five days. There was a good rain on the 27th. The temperature fell to 43° the morning of the 28th.

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cool weather at the end of the week. The maximum temperature, 92°, occurred on the 23d, but on the morning of the 28th the temperature had fallen to 37°. .28 of an inch of rain fell on the 28th. Sheridan.—Ideal weather has prevailed. The fore part of the week was warm, the latter part cool. 1.05 inches of rain fell on the 27th. The temperature ranged from a maximum of 92° on the 23d to a minimum of 41° on the 27th and 28th. Thomas.—This has been a week of warm days and cool nights. There was a good shower on the 24th, and a rain of 1.44 inches on the 27th. The maximum temperature was 94° on the 24th, and the minimum 37° on the 27th. Blessed is the man who has the gift of making friends, for it is one of God's best gifts. It involves many things, but above all is the power of going out of oneself and seeing and appreciating whatever is noble and loving in another man.—Thomas Hughes.

# EVERGREEN STOCK FARM

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Will Sell at Public Auction at

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#### Grain in Kansas City.

Receipts of wheat in Kansas City today were 56 cars; Saturday's inspections were 45 cars. Offerings were fair and the demand was poor. The mills were practically out of the market. Prices were unchanged to 1c lower, and lowest at the close. A number of cars remained unsold. The sales were: No. 2 hard, 2 cars 79c, 5 cars 78c, nominally 77@80c; No. 3 hard, 1 car 76c, 2 cars 75c, 1 car 74½c; No. 4 hard, 1 car 72c, 1 car 71c; rejected hard, 1 car 62c; No. 2 red, nominally 83@90c; No. 3 red, nominally 85@88c; No. 4 red, nominally 70@84c.

Receipts of corn were 129 cars; Saturday's inspections were 66 cars. Offerings were the largest in some time past. The demand was fair. Prices were ¼@½c lower, as follows: No. 2 white, 8 cars 47c, 7 cars 46½c; No. 3 white, 4 cars 46½c; No. 2 mixed, 20 cars 47c, 6 cars 46½c; No. 3 mixed, 4 cars 46½c; No. 2 yellow, 3 cars 47c, 4 cars 46½c; No. 3 yellow, 3 cars 47c.

Receipts of oats were 5 cars; Saturday's inspections were 3 cars. Prices were about the same as Saturday, as follows: No. 2 white, nominally 35@33½c; No. 3 white, 1 car 33c, 1 car 32c, 1 car colored 31½c; No. 2 mixed, nominally 32@31½c; No. 3 mixed, nominally 31@31½c.

Barley was quoted 42@44c; rye, 55@57c; Kafir-corn, 80@85c per cwt.; bran, 95c@1.10; shorts, 98c@1.01 per cwt.; corn-chop, 92@94c per cwt.

#### Kansas City Live-Stock Market.

Stock Yards, Kansas City, Mo., April 30, 1906.

A decided upturn in the cattle market was the feature last week. Few cattle came in after Wednesday, but such as did come got an advance of 20@30c over Monday's prices. This strong market had the effect of drawing in a big supply to-day, 11,000 head here, and liberal elsewhere, but the market is holding up steady to-day. The scarcity of highly finished beef steers is more accentuated every week, steers is more accentuated every week, the best here last week selling at \$5.55, 20c less than the top the previous week, although the market was higher last week. Top prices to-day are \$5.35 for steers, sorted heifers and yearling \$5.25, feeders \$5. A train of Nevada hay-fed steers, fed for San Francisco market, but turned this way on account of the earthquake, sold to the packers here to-day at \$4.20@4.65.

The month of April shows more cattle received here than ever before in April, 157,300, as compared with 125,000 last April, and 133,500 largest previous April, in 1903. The increase from native territory is even greater than the figures indicate: last year we received 8,000 cattle from Southern Texas in April, while this year in April only a few have come from that source. The supply has dwindled in the last two weeks, and big runs on Monday and Tuesday is followed by small supply and strong prices later in the week; it may be that way this week. Bulk of steers sell at \$4.65@5.30, heifers \$4.25@5, cows \$3.25@4.50, canners and stock cows and heifers \$2.25@3.40, bulls \$3@4.25, calves \$3@6, stockers \$3.35@4.60, feeders \$4@4.90.

Hog run last week was 52,000 head, supply to-day 10,000, market 5@10c lower to-day, top \$6.42½, bulk of sales \$6.25@6.40, light weights up to \$6.32½, pigs \$5.25@6. The market was lower the middle of last week, but best hogs sold at \$6.50 Saturday, and it looks like receipts of around 50,000 hogs per week can be handled at the high level now ruling. Supply for April shows a gain of 40,000 head over last April, and prices have averaged \$1 higher, which indicates the strength of the demand.

Lambs gained 25@40c last week, as the end of the fed lamb season is in sight. Best lambs sold at \$7.20 to-day, and more than fifty doubles of woolled lambs brought \$7 or better since middle of last week. Sheep prices were not fully tested, but gained 15@25c last week, woolled yearlings quotable at \$6@6.30, wethers up to \$6.15, ewes \$5, clipped wethers and yearlings \$4.75@5.50, lambs \$5.75@5.95, ewes \$4.50@5. Run to-day 5,000, market strong to 10c higher. J. A. RICKART.

#### South St. Joseph Live-Stock Market.

South St. Joseph, Mo., April 30, 1906. As was anticipated at the close of last week, there was a marked increase in the number of cattle being forwarded for the opening trade of this week, locally the supply was nearly double that of a week ago, while five leading markets showed an increase of around 11,000. In the face of the fact that the Chicago market was 10@15c lower, the local trade ruled fully steady on good demand for everything in the beef-cattle line. The quality of steers was not better than ordinary to medium, there

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JOHN SEBASTIAN, Passenger Traffic Manager, Rock Island-Frisco Lines, CHICAGO and ST. LOUIS.

being absolutely nothing on choice weighty order here, the best being just a fairly fatted bunch of 1,300-pound steers on coarse and uneven order that sold at \$5.15. The bulk of steers were light to medium weights that sold between \$4.60@5 with common light killers going at \$4@4.50. Supplies of butcher stock was meager and the demand good enough to hold prices fully steady in the common heifer line. The best heifers sold at \$4@4.25. The stocker and feeder trade was quiet on light supply, the local dealers not showing desire for big receipts. The outlook of the trade seems favorable should supplies not be forced up to big figures.

Hog supplies were fairly liberal in the total at five markets, but they were largely bunched into Chicago, forcing a break of 10@15c on that market, which was immediately reflected on trade at the river. Opening sales at the market were around 5c lower than the close last week, but there was further weakening as the day advanced and the bulk of sales showed 5@10c decline, top hogs sold at \$6.45 and the bulk at \$6.30@6.35. The market was quite active at the decline. The outlook seems to favor gradually weakening prices unless the country should curtail receipts, as packers have got them started down now and will no doubt continue to play their cards for a lower level. The sheep market continues in good condition with prices on an upward trend, tops here to-day sold 25c higher for lambs than last week, but some of this was due to excellence of quality and the market in reality could not be quoted over 10@5c higher for lambs, while sheep were strong to 10c higher,

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top lambs sold at \$7.25, clipped lots at \$5.90, with prime woolled wethers at \$5.85. WARRICK.

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

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