

KANSAS FARMER



Volume XLIV. Number 25

TOPEKA, KANSAS, JUNE 21, 1906

Established 1863. \$1 a Year

COMMENCEMENT AT THE STATE AGRICULTURAL COLLEGE.

The year, which closed with the exercises of Commencement Day on Tuesday, June 14, has been a busy and prosperous one for the Kansas State Agricultural College. The enrollment reached a total of 1,688 students who came from 97 Kansas counties and from other States and countries. In the student body of this year, there were but eight counties in Kansas that were not represented. Among the students were two from Japan, one from Porto Rico, and six from the Philippine Islands. The graduating class numbered 100, of whom 19 of the young men selected subjects for their theses that were distinctly agricultural. Twenty-six of the young women had subjects bearing upon domestic science and the home. Nineteen young men selected electrical engineering, three chose architecture, five mechanical engineering, and the remainder of the class, composed of both young men and woman, had topics chosen in general science.

The exercises of Commencement week followed the usual course, beginning with the Baccalaureate Sermon in the auditorium on Sunday afternoon at 4 o'clock. This sermon was delivered by the Rev. Daniel McGurk, of Kansas City, Mo., to an audience of 2,000 people. On Monday night the music department gave its annual concert which was the best in its history. On Tuesday the Seniors gave their class play, in which twenty-five graduates took part with much credit to themselves and their class. On Commencement Day the annual address was made by Dr. Edwin Erle Sparks, of the University of Chicago. This address was a masterpiece, and was listened to with the greatest attention by the immense audience assembled in the auditorium. Following the address, diplomas were given to the 100 young men and women who now go forth into life better equipped than they could have been without the training they received here, and much better equipped than are their fellows who get no such schooling. In the afternoon the cadet band gave a concert in the auditorium, which was followed by a military drill and sham battle on the campus, which marked the close of the Commencement period. At 8 o'clock in the evening President E. R. Nichols and wife gave a reception to the regents, faculty, and invited guests.

As indicating the appreciation in which this great institution is now held, it may be stated that the graduates find ready employment immediately after leaving college. A very large percentage of the students come from the farm, and the number who return to it is each year growing greater. Not only will agriculture become one of the greatest of industrial pursuits in the near future, but the Central West will be the scene of its greatest activity. These young men appreciate this, and are preparing themselves to fill important positions in the management of their farms, dairies, breeding establishments, and orchards. One member of the graduating class was elected Government Forester, at Fort Riley; another was made horticulturist at the Hays Experiment Station, which is the largest of its kind in the world; another has gone to Montana to take charge of a dairy-farm; several have been placed in charge of manufacturing plants of different kinds; and four have been given important positions in the general electric works. A larger number than usual of the members of the graduating class have returned to the farm. Not only is this great institution do-

ing a vast deal of good for the young people who are in actual attendance, but it reaches out its influence and aids those farmers who are either too old to attend college or whose business relations are such that they can not leave their homes. These and others are reached by a series of farmers' institutes which is vastly more compre-

the part of the alfalfa-grower at haying time, and there is often some loss on account of showers on the partly cured hay, but we are constantly learning new and better methods of caring for this crop. So much of it as is eaten from the pasture by the pigs, cattle, and horses is harvested and almost marketed as it grows.

spring. Where grasshoppers are bad, eternal vigilance is the price of a stand of alfalfa. The method of applying this vigilance is pointed out in this week's KANSAS FARMER by Professor Popenoe. Every alfalfa-grower who has trouble with grasshoppers should read Professor Popenoe's discussion.

If the seed can be obtained to double the acreage of alfalfa this fall, a great increase in next year's income will be assured, and the certainty of a crop—rain or shine—will conduce more to snores than to nightmares while the head rests upon the pillow.

ALVIN J. WHITE'S HOLSTEINS.

A visit to the home of Alvin J. White, Rural Route No. 7, Topeka, Kans., brought the attention of the writer to Holstein-Friesian cattle. Mr. White has a choice bunch of these cattle of which he is justly proud.

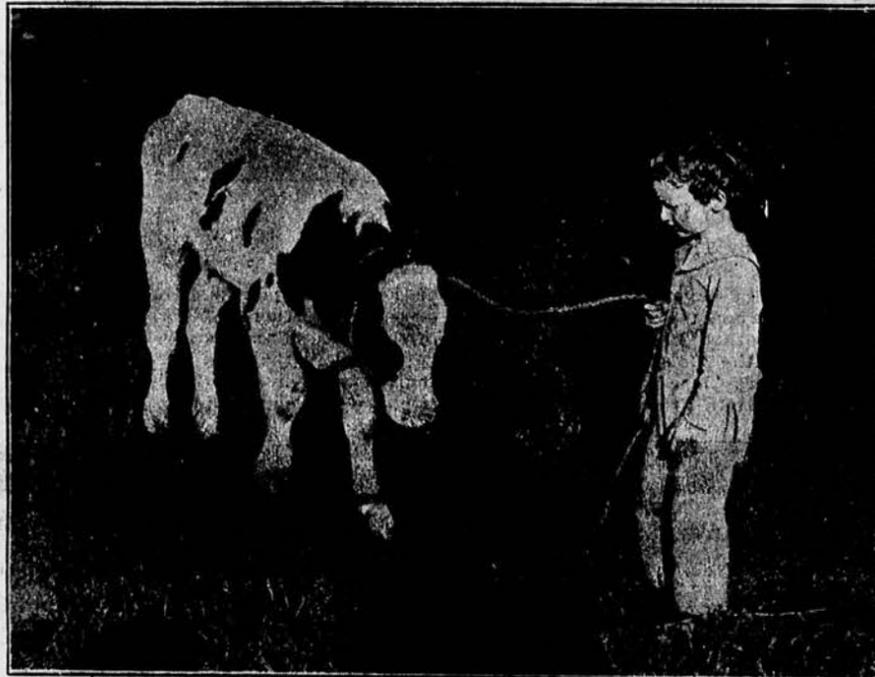
Every breeder of live stock, if he is worthy of that name, is sure to believe that his breed is superior to all others. It is this faith in his breed that makes him successful. A breeder should ride a hobby, and this hobby should be the particular breed of live stock which he raises. Mr. White does not claim everything for this particular breed nor for his own particular herd. He does not claim that they are superior to Shorthorns or Herefords for beef, but he does believe that for veals the Holsteins are hard to beat. This is one thing that makes them valuable as dairy-cattle. The veals mature rapidly, and fatten easily; and a Topeka butcher, who knows their value, is willing to pay an extra price to get them. The calf that will fatten quickly, and mature early, thus taking less of its mother's milk, is a fine advertisement for its breed. Many a calf consumes more milk than he is worth, and I have known calves to be given away when a few days old, because the milk they would consume was so valuable for the city trade.

Holstein-Friesian cattle come originally from north Holland and Friesland, whence they get their name. Only three-tenths of the Netherlands are arable, and for that reason the farming must be well done. At best the country does not support its own population. The moist climate causes a rich growth of grass which is fine for pasturing. On these pastures Holstein-Friesian cattle graze. The Dutch make a great deal of butter and cheese. Cheese is one of the exports from Holland.

The Holstein is somewhat of a general-purpose animal, although valued more for their very large production of milk than for their beef-producing qualities. Nevertheless, their large carcasses butcher fairly well. As milk-producers, they have made some remarkable records. It is not unusual for a cow to give more than her own weight in milk every month for ten or twelve consecutive months, and there are numerous instances of yields of 100 pounds or more a day, and 20,000 to 30,000 pounds a year, although 40 to 60 pounds a day, or 7,500 to 8,000 pounds a year is considered an average.

As to per cent of fat, Holstein milk does not rank first, but this is made up in the quantity produced, so that in the long-run they probably produce as much fat as other breeds. As to the per cent of casein and albumin, they are exceeded only by the Jerseys and Guernseys. The large supply of milk rich in casein and albumin and fairly rich in fat makes them valuable cheese cows.

Mr. White's cattle show some fine udders, and have made some fine rec-



The junior member of the firm of White & Son, and the calf Parthena Sir Iuka Hingervold DeKol.

(Photographed by THE KANSAS FARMER man.)

hensive than anything that has ever been attempted in this State, and the results of which will not easily be computed.

The college has scattered broadcast its publications of various sorts, most important of which are the experiment station bulletins which go to thousands of farmers free of cost, and afford them accurate and reliable information such as is nowhere else obtainable.

Under the management of the present efficient board of control, the Agricultural College of Kansas has attained a position of which each citizen ought to be proud, and it is a matter of satisfaction to know that the present board and faculty, who have brought another year's work to a most successful close, will remain substantially as they have been in the last twelve months.

ALFALFA.

An alfalfa-grower who has 125 acres of this legume was discussing the tendency of some of the plants to die leaving the older fields without as close a stand as is usually desired. The writer suggested that such old alfalfa land, plowed and planted to corn, would yield satisfactory results. "Yes," said the alfalfa-grower, "but one hates to plow up a crop that pays four times as much as corn."

These are the words of a practical farmer who has as good corn land as is often found, and who knows whereof he speaks. It may be hard to convince the man who has walked between cultivator handles in the corn-field for half a lifetime that he can grow a crop worth four times as much as corn, a crop that is far less dependent than corn upon the favorableness of the season. True, there is often anxiety on

The farmer, above mentioned, sowed his first alfalfa a few years ago. Corn was his great crop. When he had 20 acres of alfalfa, he found himself up to his eyes in haying nearly all summer. This interfered with the care of his 100 acres of corn. He has 20 acres in corn this season, and none need be surprised if this small acreage suffer further reductions until the neighbor, perhaps the renter, shall be allowed to monopolize the production of corn. This corn monopolist will sell corn to the alfalfa farmer and throw in the fertility of his land for good measure.

If plans have not yet been made for sowing alfalfa this season, such plans should be perfected immediately by every farmer in Kansas. The ground should be disked, plowed, narrowed, and perhaps subsurface-packed at the first opportunity. It should be harrowed again after every rain until the middle of August when, if the soil contains a good supply of moisture, the seed should be sown. If the soil, especially the under soil, be dry, sowing should be deferred until after a good rain, but not later than September 15.

The writer has obtained good stands from sowing 12 pounds of good seed to the acre. Many advise to sow 20 pounds and some say 25 pounds. After reading a great deal about this branch of the subject, the writer would not use more than 12 pounds, but would be lavish in the expenditure of horse labor in preparing a perfect seed-bed.

In sections where grasshoppers are very bad, it may be necessary to defer sowing to some other date than that here suggested. Some have recommended to sow late in the fall, so that the growth will be made after the 'hoppers have ceased their greatest activity. This may work well in a favorable fall. Others sow very early in

ords. His cow, Beauty Parthena 49059, has just completed an official seven days' test, making nearly twelve pounds of butter in that time. She has been giving milk continuously for nearly three years. A 2-year-old heifer, Pauline Louisa Sarcastic 76929, has also just finished a seven days' test, making 10 pounds of butter for the week, the milk testing nearly 4 per cent of fat.

Malcom H. Gardner, Superintendent of Advanced Registry of Holstein cattle, in his annual report says:

"During the year just closed, our breeders have had 1,614 cows under

ing finely, considering the fact that this is her first lactation period.

The Holstein breeders claim that although Holstein milk does not separate as easily by gravity as does that of some other breeds, nevertheless it can be separated by rotation. The milk has been held in disrepute because a large quantity of cream did not raise on the milk, but the separator has shown that the milk contained fat which did not rise to the top. It is also claimed that because the fat does not separate easily, the milk is much more digestible, and instances are cited

there. Can one stop them from doing this work?

Dickinson County.
This case is covered in the General Statutes of Kansas, chapter 100, section 339, which reads as follows: "If any person or persons shall put any part of the carcass of any dead animal into any river, creek, pond, road, street, alley, lane, lot, field, meadow, or common, or if the owners thereof shall knowingly permit the same to remain in any of the aforesaid places to the injury of the health or to the annoyance of the citizens of this State or any

PIPE-LINE QUESTION.

EDITOR KANSAS FARMER:—Please answer through the columns of your paper the following question:

Do the laws of Kansas give a gas company the right to lay a pipe-line through a man's farm without his permission or consent? I. LINDLEY.

Butler County.

Companies whose business is to lay pipe-lines in which to transport gas to be delivered and sold to the people are classified as public-service companies or corporations. They have the right of "eminent domain," that is, the right to condemn and purchase, at a price to be determined by disinterested persons, right-of-way over any lands their pipe-lines will traverse. Such corporations always prefer to contract for such right-of-way rather than to take it under the law.

The question of the adequacy of the compensation offered is another matter. There is generally little inconvenience on account of the pipe-line under the soil.

If our correspondent can arrange for a supply of gas from the pipe-line at a reasonable price, he will never regret the existence of the pipes on his place. The price charged in Topeka for natural gas for domestic use is 25 cents per thousand cubic feet. For heating purposes this is said to be about equal in cost to coal at \$4 per ton.

HORTICULTURISTS AT LAWRENCE.

A joint meeting of the Missouri Valley Horticultural Society and the Douglas County Horticultural Society was held at the beautiful suburban home of A. H. Griesa, near Lawrence, on last Saturday. The visitors were met at the trains, and every attention was given to make the occasion profitable and pleasant. The writer and J. H. Wendell, of Route 5, Topeka, were taken in charge by Wm. Brown, a fruit-grower whose work is almost under the shadow of the University. As his place was approached, the row of fawn-colored Jersey cows which lay in the shade at the edge of the pasture suggested strawberries and cream. The dairy-division of the work is not William Brown's hobby, but is cared for by one of his sons, a graduate of the Univer-



A group of Holsteins owned by Alvin J. White, Topeka, Kans. (Photographed by THE KANSAS FARMER man.)

test for a period of seven days, and many of these cows for a longer period. Of the 1,614 cows, the tests of 69 were begun more than eight months after freshening; and the results fully sustain the reputation of our breed of cattle for holding out well. The remaining 1,545 cows and heifers of all ages produced, during a period of seven consecutive days, 581,959 1/2 pounds of milk, containing 19,701 1-3 pounds butter-fat; thus showing an average of 3.39 per cent fat. The average weekly production for each animal so tested was 376.7 pounds milk containing 12 1/2 pounds butter-fat; equivalent to 53.8 pounds milk, or over 26 quarts, daily, and nearly 15 pounds of the best quality of butter per week."

A comparison will show that Mr. White's cattle rank well with the rest of the breed. The 2-year-old heifer, Pauline Louisa Sarcastic, surely has a bright future before her; it can be seen that her milk tests above the average, and as to quantity of butter she is do-

where infants have been fed of Holstein milk when they could not digest milk from other kinds of cattle. If this be so, the Holsteins have scored another point. It can not be doubted that the Holstein-Friesian is a valuable

of them, every person so offending shall on conviction thereof before any justice of the peace of the county be fined in a sum not less than one dollar nor more than twenty-five dollars; and every twenty-four hours during which said



Jasper Wyntje 63793 and little daughter Jap Rose, owned by Alvin J. White, Topeka, Kans. (Photographed by THE KANSAS FARMER man.)

breed. It ranks well with the other breeds; it has valuable characteristics not possessed by other breeds; and the Holstein breeders are using intelligence and energy in improving the breed to as great extent as are the fanciers of other breeds, and their efforts are meeting much success.

NUISANCES.

EDITOR KANSAS FARMER:—I would like to find out through your paper what the law is in regard to leaving dead cattle lying around in a pasture adjoining our pasture where we have breeding cows. It is close up to our fence. This pasture is used for butchering and the entrails are left lying

owner may permit the same to remain thereafter shall be deemed an additional offense against this act."

The next section requires proper care of the slaughtering-house.

Doubtless it will be sufficient to call attention in a neighborly way to the fact that the practices mentioned by our correspondent are causing annoyance and are liable to endanger health. Certainly if the attention of those who have heretofore overlooked these matters be directed to this discussion, resort to the persuasiveness of the law will be unnecessary. The law, however, is sufficiently explicit, and if put into action, will be found sufficient.

Bad news never spoils by keeping.

sity, who is making up-to-date, enlightened methods pay. No sooner had the edge of the fruit-farm been reached than it was manifest where Mr. Brown's chief interest centers. His berry-fields and orchards were in perfect condition. Persistent cultivation had to a great degree counteracted the effects of the dry weather, so that berries whose season had not passed were laden with fruit. The fruit-trees were also given perfect cultivation, and, if appearances could be believed, had not known that the rains had been unduly postponed. Mr. Brown is fascinated by new and promising varieties. He tells with equal enthusiasm of those that disappointed and had to be "torn out"

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Agriculture

Yellow Sweet Clover.

EDITOR KANSAS FARMER:—A. Van Riper, of Arlington, Kans., sends a plant which was referred to me for identification, and which was found growing in his alfalfa-field. The plant in question is yellow sweet clover, scientifically known as *Mellilotus officinalis*. This plant, like its near relative, the white sweet clover, *Mellilotus alba*, has been introduced into the United States from the Old World. It is, generally speaking, not so common in Kansas to find the yellow sweet clover as an abundant weed, as is the case with the white species. Both are biennial plants, and can best be disposed of by mowing when the plants are well in blossom. By this means the seed will be prevented from forming and the plants will be killed. If one mows too early in the season, the plants will simply be compelled to branch near the ground and form their flower shoots there, where it will be difficult to reach them with a mower. Hence, the reason for delaying cutting until the plants are of full height and well into blossom. The two species of sweet clover mentioned seem to be of no forage value, as the leaves and stems have a bitter flavor, and are quite distasteful to stock. The only other use which the sweet clovers serve is as bee-plants. By following the practice given above, sweet clover can easily be held in check.

H. F. ROBERTS,
Botanist, Kansas Experiment Station.

Vitality of Alfalfa-Seed.

A remarkable test of the vitality of alfalfa-seed is reported in Bulletin No. 110 of the Colorado Agricultural Experiment Station. It is generally considered that seed must be perfectly new in order to come up freely. In Bulletin No. 35 of the Experiment Station, some tests were given of seeds ranging from one to six years old. Dr. Headen has retained samples of the same seed and tests have been again made when the seed has been from eleven to sixteen years old, and the tests have shown that, from 88 to 96 per cent germinated. The screenings showed less vitality, the first quality of screening running from 50 to 79½ per cent; second quality, 38 per cent; and third quality, 40 per cent.

Barnyard Manure as a Link in the Chain of Evolution.

EDITOR KANSAS FARMER:—The value of manure is no greater than the food of which it is composed, but is rendered available as plant-food much quicker by its passage through the animal than it would be if used in its raw or natural state. Many believe that there is no difference in the value of manure, whether it be from animals fed on straw and corn-stalks or from those fed a heavy grain-ration, balanced to meet all the requirements of the animals, and many have not learned that liquid excrement has any value at all, as holes are bored in stable floors for its passage into the earth under the barn. Nearly all of these throw the manure out of windows or openings in the stable to lie in unsightly heaps against the building and to be leached by great quantities of water, and when much of its value is washed out and a more convenient time is come, it is drawn to the field and put in small heaps to be scattered later and plowed under, usually for corn. It has been determined by many tests and experiments that manure, as ordinarily stored, gains nothing but loses much. When mixed with litter, plant-food of such litter is rendered available much quicker by lying in a compost heap where heat and moisture hastens its decay. We have long practiced drawing direct from the stable to the field and spreading on the surface at once. By so doing much time and labor are saved, and no foul-smelling, unsightly heaps of manure mar the beauty of the surroundings nor serve as an incubator for insect life.

I have found that the manure-spreader will do the work both quicker and better than can possibly be done by hand, scattering more evenly and also it can be applied more thinly, thus covering a larger area without the loss of plant-food resulting from over-feeding, or giving the plant more than it can possibly use, as is the case many times when scattered thickly. "All plant-food is manure; and all manure is plant-food, and the feeding value is measured by the quantity of nitrogen,

potash, and phosphoric acid they contain, and the digestible condition in which these elements exist." But barnyard manure also supplies much material for the making of humus, a very essential element in plant life.

To what crops or plants shall manure be applied or fed is a question often asked, and answered in many ways, for there are "many men of many minds," but, admitting the recognized fact taught by evolution that each atom or substance, whether it be rock, mineral, or plant life, lives, dies, and lives again in its succeeding life, which by its death and decay has helped to nourish, we believe the greatest good will result in applying all manure, directly to the surface of grass-lands, as its action then is twofold, yes, threefold. It feeds the plants, serves as a mulch to keep the surface from becoming hard, thereby conserving moisture, and adds humus to the soil, both directly and indirectly, by the increase of both roots and leaves. Manure thus applied will make not only two blades of grass, but many of them to grow where but one grew before. Feeding the grass, we believe, is the surest and best way of feeding all the plant, and, in the course of evolution, all the animals on the farm and lastly all the people of all the earth, as "the order in creation is that rocks supply the minerals, plants feed on these minerals, animals feed on these plants, while omniverous man, lord of all, feeds on both minerals and plants." This subject of manures and how to use them is an ever-increasing and interesting problem, worthy of deeper study than it has yet received, as it involves the feeding of a densely populated world.

F. C. JOHNSON,
Breckenridge, Mich.

Manure Questions.

We are desirous of securing some data on the best methods for handling and caring for barnyard manure, in order that it may not deteriorate before application to the land. It is better to haul the manure directly from the stable to the field, or is the manure benefited by being stored in a shed and allowed to compost? Does not composting result in excessive fermentation, leaching, and fire-fanging? What per cent of loss results in piling the manure outside where it is exposed to the weather? What is the approximate value of barnyard manure as compared with commercial fertilizers?

We contemplate issuing a small booklet in which we wish to use this information. The booklet will have a wide distribution in all of the Central States and in most of the New England States, going to dairymen and farmers. If you have any printed reports or other data bearing on the above or giving information of any kind as to the best and most profitable methods of handling and caring for the accumulating manure on large and small farms, we shall appreciate same.

LOUDEN MACHINERY CO.

Fairfield, Iowa.

I have mailed copies of Circulars Nos. 2 and 3, answering questions regarding the care and use of manure and fertilizers. Doubtless, I have given in these pamphlets the information which you desire.

In my judgment, it is usually best to haul the manure directly from the stables to the field where this can be economically done. The manure is not improved especially by being left in the shed, but if it is not possible to haul it to the field and spread it at once as soon as it is made, then it is much preferable to have the manure stored in a shed rather than to leave it exposed to the weather in an open yard. A good method of feeding cattle and making manure is to feed under sheds. The tramping of the manure by the cattle will pack it and cause it to hold moisture, so that it will keep in good condition for a long time with little loss.

The method of composting manure is more necessary when manure is used for fertilizing gardens or for intensive farming conditions. On the average-farm it is not necessary to compost manure. If manure is properly composted, it should not "fire-fang," and it is of course undesirable that it should be leached by heavy rains. There is always a waste of the fertilizing elements in composting manure, but the advantage in composting is that the manure is put into better condition for incorporating with the soil, and the plant-food elements which remain have been made more or less available by the composting. Experiments carried on at several Eastern stations indicate that manure left in the pile in the yard may lose a large part of its plant-food

elements during the five or six warm months of the year. The loss will depend upon the season and on the factors which are introduced in the wasting of the manure, namely, leaching and burning, or fire-fanging, as you call it. Manure piled loosely in large piles is almost sure to ferment and burn, driving out a large part of the nitrogen, which is one of the most important fertilizing elements. The leachings of manure takes out not only the soluble nitrogen, but the potash and phosphoric acid salts, leaving only the insoluble plant-food elements and the humus, which will be largely composed of crude fiber after excessive leaching.

In the pamphlet mailed, you will find a discussion of the plant-food value of barnyard manure, which you may readily compare with the plant-food value of different commercial fertilizers. I have mailed you, also, copies of Circulars Nos. 5 and 6, discussing subjects relating to farm management, including the handling of manure, from which you may be able to quote in preparing your booklet.

A. M. TEN ETCK.

Fertilizers for Alfalfa.

Last fall I seeded alfalfa on a field of sloping upland which had been continuously sown to wheat for a number of years. I secured a satisfactory stand, but, as a rule, the plants do not show a vigorous growth. On close examination, the exceptions show a deeply rooted plant, indicating that they are drawing upon the subsoil for plant-food. By litmus-paper test, the surface soil shows an almost neutral state, with if any difference a slightly acid reaction. This condition suggests to me the idea of mixing the seed with a commercial fertilizer and air-slaked lime and seeding with an ordinary grain-drill, thus depositing with the seed a supply of plant-food which would be available at the critical stage. Do you think the plan at all feasible? I want to seed another field this fall and would like your opinion.

Rice County. E. W. GLAZE.

Doubtless, on the land which you describe a light application of nitrate of soda, superphosphate or bone-meal, and lime would prove beneficial in starting the young alfalfa. I would not recommend, however, to mix the fertilizer with the seed, but to apply the fertilizer separately, preferably before seeding, combining it with the soil by cultivation with the harrow or some other cultivating implement.

You may apply the nitrate and superphosphate at the rate of 50 pounds each per acre, or, if the bone-meal is substituted for superphosphate, a little larger quantity of the former may be used. Apply the lime at the rate of 25 to 30 bushels per acre. I enclose copy of Circular No. 2, giving directions regarding the application of lime and other fertilizers.

Perhaps a dressing of barnyard manure disked into the soil previous to

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sowing will give more benefit than an application of commercial fertilizers. Land, such as you describe, is really lacking in humus more than in any other element of fertility; the lack of humus causes the soil to be fine-grained and compact when wet and to bake when it dries, leaving a very unfavorable texture for the germination of seed and the growth of young alfalfa-plants. The plant-food of soil may be made available by cultivation of the land for an interval previous to seeding, for instance, in the case of fall seeding, plow immediately after harvest and continue to harrow or disk at intervals until about the first part of September, when the alfalfa should be sown. By this cultivation the moisture is retained in the soil, and the conditions are made favorable for the growth of bacteria and the development of available plant-food, which favors the quick germination of the seed and rapid growth of the young alfalfa-plants. Likewise, the cultivation of the ground for several weeks or months previous to planting destroys the weeds and leaves a clean field for the starting of the alfalfa-crop. This freedom from weeds is really more important in spring seeding than in fall seeding.

Doubtless, the season has much to do with the present unfavorable growth of the alfalfa seeded last fall. A light dressing of manure on the field in question would give good results. It may be advisable, also, to harrow this alfalfa as soon as it rains and puts the ground into a mellow condition. I would not advise to disk this season, however, considering the feeble condition of the plants. A. M. TEN EYCK.

Saving Alfalfa for Seed.

PROF. A. M. TEN EYCK, IN BULLETIN 134, KANSAS EXPERIMENT STATION.

I have had little actual experience in saving alfalfa for seed, and I do not find much information published on this subject. Many questions along this line come to me for answer, and in order to collect information on this subject—to learn the methods in practice, and profit by the experience of alfalfa-growers—I have proposed a number of questions, as follows, which were submitted for answer to several hundred prominent alfalfa-growers throughout the West, mainly in Kansas:

1. What condition of soil, weather, etc., do you consider most favorable to the development of alfalfa-seed? What conditions unfavorable?
 2. What relation do bees and other insects have to the development of alfalfa-seed?
 3. Which crop of alfalfa is best to save for seed, and why?
 4. Can you tell when alfalfa is likely to make a good crop of seed? How early in the growth of the crop can this be ascertained?
 5. At what stage in the maturity of alfalfa should the crop be harvested for seed?
 6. Describe the methods of harvesting and caring for the seed-crop.
 7. When is the best time to thrash, and what kind of a thrasher is best to use, an ordinary thrashing-separator or an alfalfa-huller?
 8. How should the seed be stored, and when marketed?
 9. Give any other general information bearing on this subject which you may consider essential for the successful growing and saving of alfalfa-seed.
- Some fifty replies to these questions have been received, and in preparing the present bulletin the writer has drawn freely from these replies.

THE SOIL.

Good crops of alfalfa-seed may be produced on a variety of soils, ranging from "black gumbo" to "sandy loam," but the general experience is that the soil should be well drained and of average fertility. Very fertile land and soil supplied with an abundance of moisture "produces plant not seed." On this account in Central and Eastern Kansas, "upland" or "second bottom" is usually considered superior to "bottom-land" for alfalfa-seed production. A soil poor in fertility will produce only light crops of seed, while large yields of seed may be produced from fertile land in a favorable season, but with unfavorable weather conditions, the seed-crop is more apt to fall on the more fertile soil. "Rankness in growth of plant is not conducive to the production of seed." Alfalfa will not thrive on a shallow soil with hardpan subsoil, or on low or poorly drained land.

THE WEATHER.

In the opinion of many alfalfa-growers the weather is a more important

factor than the soil, in determining the production of a good crop of alfalfa-seed. On a given soil capable of growing alfalfa, "the weather is the determining factor in seed-production," or it may be as truly said that the moisture supply, in time and amount, largely determines the alfalfa-seed crop on any field. On this point a majority agree that the alfalfa should have a moderate supply of water in the early part of the season, and during the early growth of the seed-crop—just sufficient moisture to produce a vigorous, healthy plant. To insure a good crop of seed, no rain should fall from the time the alfalfa begins to blossom until most of the bloom has fallen, and then the weather should continue rather dry until the seed-crop is harvested and thrashed, or put into the stack. Wet weather in the latter stage of its growth causes a continuation of blooming and the starting of a second growth of alfalfa, which interferes with an even and proper maturing of the seed. Also, it has been observed that very hot, dry weather, with a deficiency of moisture in the soil during the seed-forming period, has resulted in light blasted seed and a low yield. It is said that under the conditions observed, alfalfa-flowers fail to secrete nectar and are hence not fertilized, because not visited by bees and other insects.

OTHER FACTORS.

A rather thin stand of alfalfa with vigorous plants of average growth favors the development of seed, while a thick stand and a rank growth of plants are considered unfavorable conditions for seed-production. The seed-fields should be comparatively free from weeds. By disking and harrowing the alfalfa early in the spring, or perhaps after the first or second hay-crop is removed, the weeds may be held in check and the soil kept in good tilth, resulting in strong, well-developed plants, capable of producing large yields of sound, plump seed.

EFFECT OF BEES AND OTHER INSECTS.

The botanist informs us that alfalfa-blossoms do not self-fertilize. In order that the blossoms become fertilized and produce seed, it is necessary that pollen from a separate flower be brought in contact with the pistil of another flower. It is very improbable that the pollen can blow from one flower to the other, as is the case with corn and some other plants. Thus there is little question but that the pollen is transferred from flower to flower by insects, which accomplish this good work while they sip the nectar which each healthy flower secretes, apparently for the very purpose of attracting insects.

Farmers themselves are divided upon this point, as to whether insects are necessary or useful in the pollenization of the flowers. Many maintain that as good crops of seeds were produced many years ago, before bees were introduced into a certain locality, as are produced now. Others state that in a locality where bees are kept there is no noticeable difference in seed-yields near apiaries compared to yields from fields further away. Such data, however, do not disprove the facts as stated above. Doubtless, other insects besides bees assist in fertilizing the alfalfa-flowers. If you will observe an alfalfa-field in full bloom, you will usually find it swarming with insects of various kinds—bees, flies, butterflies, millers, ants, and sometimes grasshoppers—although it is doubtful whether the latter are of any benefit, and certain it is that they are often a pest when numerous. It is quite possible that ants are among the important insects concerned in fertilizing alfalfa-blossoms; there is proof, however, that bees do assist in pollenating the flowers of alfalfa, as shown by the investigations of Prof. S. J. Hunter, of the University of Kansas, as published in the Twelfth Annual Report of the Kansas State Board of Agriculture. At the Experiment Station last season, 1905, part of the alfalfa-plants in the breeding-plot were covered with fine netting to keep out the insects, with the result that scarcely any seed formed on the covered plants, except in flowers which pushed through or against the netting, allowing fertilization by insects from the outside. On the other hand, adjacent plants not covered were well filled with seed-pods.

There should be a double benefit to the alfalfa-seed grower who keeps bees, for not only may he secure larger yields of a superior quality of seed by reason of the work of the bees, but the alfalfa is one of the most valuable honey-plants. In the alfalfa districts of the State, the yield of honey per hive, according to Secretary F. D. Coburn's reports, is much larger than in the sec-

tions where alfalfa is but little grown; and not only may the bees in alfalfa districts make double or treble the usual amount of honey, but this honey is very superior in quality, unequaled even by the white-clover honey of the Eastern States. "In favorable seasons, 100 pounds of honey per hive is no uncommon yield in alfalfa regions."

WHICH CROP TO SAVE.

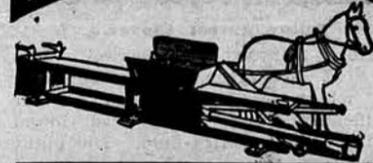
The region lying west of the Missouri River grows most of the alfalfa-seed produced in the United States. A large part of this seed is grown by irrigation in the western part of the Great Plains region, in several of the mountain States, and in California. Much seed is also produced without irrigation in the eastern part of the Great Plains region. The dry climatic conditions of the West make this section of the country better adapted for the production of alfalfa-seed than the more humid regions of the Central and Eastern States. The best quality of seed and the largest crops are produced in an arid climate by irrigation. The supply of water and the weather conditions during the growing period of the crop largely determine which crop to save for seed. Any one of a season's crops may produce good seed, provided the soil and weather conditions are right for growing and maturing the seed. About the same time is required to produce a crop of seed as is required to produce two crops of hay. In the irrigated districts of Colorado and Western Kansas, the first crop is often saved for seed, the practice being not to irrigate this crop, thus causing a medium but thrifty growth of plant, which, with the favorable weather conditions prevailing in the arid regions, usually seeds well.

On the whole, especially in the more humid regions, the second or third crop is more often saved for seed than the first crop, mainly because more favorable weather conditions prevail in the late summer and early fall for maturing the seed. Also, the insects which may help to fertilize the blossoms are more numerous in the latter part of the season. Only in the Southern States is it possible to use a later crop than the third for seed.

In those latitudes where the third crop may mature seed before cool weather and frost, the choice between the second and third crop for seed is decided mainly by weather conditions at and before the blossoming period. If the supply of moisture has been moderate and the alfalfa has made a proper growth and little or no rain falls during the blossoming period, the second crop will likely seed well. However, if the second crop is rank in growth, or heavy rain falls just previous to or when the alfalfa is in bloom, it is best to cut for hay. In the non-irrigated area of the semi-arid portions of Kansas and other Western States, drouth is apt to prevail in the latter part of the season, by which the growth of the third crop is greatly reduced, causing only a slight development of seed. In such districts the second crop should be saved for seed, or perhaps the first crop, especially on dry uplands which may produce only one good crop (the first crop) in a season. In Northwestern Kansas and Nebraska it is doubtless safest to use the second crop for seed, as the third crop is apt to be caught immature by frost. In Central Northern Kansas a farmer must usually decide early whether to save the second or third crop. If the third crop is to be saved for seed, it is best to cut the first and second crops a little early, giving as much time as possible for the third crop to mature. Also, the early cutting for hay gives not only an earlier, but a more vigorous growth to the third crop, insuring a large production of seed in favorable seasons.

Some growers state that the third crop should be preferred for seed, because it blooms more evenly and matures more evenly and in a short period than the second crop. If this is a fact, it may be largely due to the favorable weather conditions which are more apt to prevail during the season of the year when the third crop is growing and maturing. When it can be successfully done, using the third crop for seed has an advantage over using the second crop in that it allows the harvest of two good hay-crops, while if the second crop is harvested for seed, only one crop of hay is usually secured that season, the growth after the seed-crop being insufficient, as a rule, in the sections of Kansas named, to produce hay. On the other hand, when the third crop is matured for seed, sufficient growth of the alfalfa usually takes place after removing the crop to give a good win-

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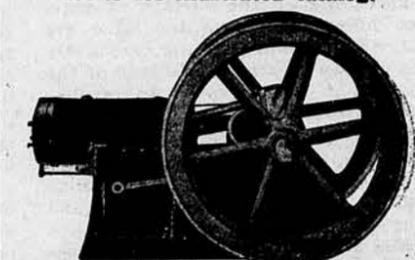
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ter cover, and it is the general report by those who practice this plan, that taking the third cutting for seed does not exhaust the alfalfa-plants so much as taking the second crop for seed.

Insect pests, as the grasshopper and web-worm, are also a factor in determining whether the second crop, or any crop, may be safely saved for seed. The web-worm is more likely to attack the second crop, but in Southern Kansas the third crop is also apt to be injured by this pest.

WHEN ALFALFA WILL MAKE A GOOD SEED-CROP.

Alfalfa is a very uncertain seed-crop, and it is a difficult matter to estimate with any degree of accuracy early in the growth of the crop what the yield of seed will be. If the weather and soil conditions have been favorable and the alfalfa has made a proper growth (not too thick and rank, but rather the stems should be of medium height and stout, with many branches), and there is an even heavy bloom over the field in five or six days after the first bloom appears, and no rain falls, the prospect for seed is good. The blooms should be large and of a dark rich color. When the blossoms are small and light in color, it is evidence of a light crop of seed. Again, if the blossoms fertilize properly, the flowers dry and stick to the stem a few days, while if they are not fertilized they drop quickly and the stems stand bare. Even before the bloom falls, the circular pods are visible. The pods should appear thickly set on the stems, two or more in a group, to insure a good seed-crop. Finally, if by examination the pods are found to be well filled with seed, the crop is assured, barring accidents by which the seed may be lost in harvesting and thrashing.

From the above suggestions it may seem to the novice that he would be able to judge fairly well when a crop of alfalfa should be left for seed; yet old growers do not find it easy to decide. A grower who has had twenty years' experience writes as follows:

"I can not tell when a good crop will be made until near maturity, as the blossoms often fail to seed, and then too much rain may cause well-fruited alfalfa to take a second growth and continue to bloom and ripen seed irregularly. Also, during damp, rainy weather the ripe seed may sprout, or when the weather turns dry the ripe pods may burst, shattering their seed." It is even possible that after a crop is ready to harvest it may be lost or badly damaged by excessive rain, causing the seed to sprout or the pods to burst when they dry in the sun.

Relative to saving a crop of alfalfa for seed these suggestions may be given:

If the weather has been too wet and the alfalfa grows too rank, cut for hay. If heavy rains fall while the alfalfa is in bloom, or before the flowers are fertilized, cut for hay. If for any reason the flowers are not fertilized and the bloom falls quickly, leaving bare stems cut at once for hay. Even after the seed is formed if excessive rains come and a second growth starts, cut the crop and remove it, because it will fail to ripen seed evenly and is almost certain to be an unprofitable crop, and the sooner it can be taken from the ground the sooner another crop may start and mature.

WHEN TO HARVEST.

The harvesting depends a little upon the evenness of blooming and the weather conditions during the period of maturing. In a favorable season, with even blooming and even maturing of the seed, the rule is to harvest the alfalfa when a large proportion of the pods have turned brown. In the average season, as the alfalfa matures part of the seed will be ripe while some seed is overripe and scattering and some is yet immature. With such a crop it is necessary to strike an average and harvest when the largest amount of plump, sound seed may be saved.

The opinions of farmers vary widely regarding the proper stage of maturity at which to harvest alfalfa. While the majority prefer to harvest when most of the seed is ripe and when two-thirds to three-fourths of the pods are brown, others recommend to harvest when one-half of the pods are brown. One grower harvests the crop when one-third of the pods are black, one-third brown, and one-third green; others harvest at once as soon as the ripest seed begins to shatter, while still others maintain that the first seed that ripens is the best and prefer to cut a little early, claiming that the seed will be of a good quality and that there is less loss from shattering in han-

dling, and less danger of damage by unfavorable weather.

Mature alfalfa-seed has a clear, light golden color; immature seed has more of a greenish tinge and may be shrunken, but if the crop is not harvested until the seed is fully ripe, the pods drop off, the seed shells easily, and the crop is hard to handle without great loss, even if it escapes unfavorable weather after harvest. On the whole, it seems to the writer safest to cut the crop a little green rather than to risk loss in ways mentioned. The greenish-colored seed if not too shrunken is good vital seed and germinates well.

METHODS OF HARVESTING.

A crude method is to cut with a mower and rake into windrows the same as hay. Handled in this way, much seed may be wasted. If the alfalfa is mowed in the morning, when the dew is on, and raked immediately, there is much less shattering of seed. If cut during the heat of the day, to prevent the shelling and waste of seed men should follow the machine with forks, moving the cut alfalfa out of the way of the team and the machine. When provided with a buncher or windrower attachment, the mower does better work and may be economically used. There is some objection to leaving the alfalfa in loose bunches or in open windrows, and unless the weather is very favorable and the purpose is to thrash at once, it is best to follow the mower closely, placing the alfalfa in larger piles or cocks, about what a man can lift at one forkful, thus avoiding pulling the bunches apart in loading, which would cause the pods to break off and the seed to shatter. Also, if the alfalfa is placed at once in the cock in this way, the seed is prevented from bleaching so much, and the straw settles and sheds rain and is preserved and cured better than when left in the loose bunch or windrow, and well-cured alfalfa straw is said to have one-half the feeding value of alfalfa hay.

The self-rake reaper is in common use, and is an excellent machine with which to harvest the alfalfa-seed crop. The gavels are dropped from the platform out of the way of the horses and the machine. Usually men follow with forks and lay three or four gavels in a pile. These bunches shed rain and preserve the seed and straw in better condition than the single gavels, and the seed does not shatter so badly in handling the larger compact bunches as in handling the smaller ones.

Some few growers cut the crop with a header, leaving the alfalfa in windrows across the field. This method is only satisfactory in a dry season, when the alfalfa is thrashed or stacked, as soon after harvest as possible. Many Western growers harvest alfalfa with a binder. The usual practice has been to remove the binder part, but leave the packers on and throw the bundles out loose, dropping in bunches by use of the bundle-carrier or bunching with the fork, as already described in the use of the self-rake reaper. In recent years, however, many prefer to bind the alfalfa in bundles and shock the same as wheat or other grain. The advantage claimed for this method is that it requires less help, since one man may do the harvesting and put the crop into the shock if help is scarce; the alfalfa may be cut a little greener, the seed does not shatter so readily, and the straw may cure and keep better than when put up loose.

When bound and shocked, the alfalfa should stand a couple of weeks, until dry enough to thrash. If put into the stack, thrashermen prefer to have it loose, as bundles are more apt to be damp and tough, but if fully dried when stacked, alfalfa should keep well in the bundle. It is suggested to stack with layers of straw between layers of alfalfa, in order to take up the moisture.

STACKING AND THRASHING.

The common practice, when it can be done, is to thrash from the field as soon after harvest as the seed is dry and the straw fully cured. If a machine can not be secured and weather conditions are favorable for stacking, better put into the stack at once when the crop is cured than to run the risk of damage by wet weather. A single rain will not injure the alfalfa much if it is well bunched or cocked, but continued wet weather causes the seeds to swell and perhaps sprout, and when the pods dry they burst, scattering the seed. Some growers estimate that half of the seed is lost in this way by a few days of unfavorable weather. Also, if the crop is allowed to lie in the field for a long time, there is more or less loss of seed from the effects of heavy dew and damage from mice and insects, and



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the longer the alfalfa lies the easier the pods break off, and the seed shatters when it is finally handled and stacked or thrashed. The largest amount and best quality of seed may be secured by stacking or thrashing the crop as soon after cutting as it is in fit condition.

Care should be taken not to stack or thrash when the straw is too green or tough and the seed not fully dry. It requires even more time to properly cure the seed-crop of alfalfa than it does to cure the hay-crop; the stems are largely stripped of leaves and cure slowly and pack closely in the stack. If stacked green, the alfalfa is sure to heat and thus injure or destroy the vitality of the seed. Also, if thrashed green or damp, much seed will be lost, since it will not hull properly, and if damp seed is stored in bulk, it will heat and spoil. To cure the alfalfa fit to stack, from three to seven days of favorable weather are required, and a longer period if it is thrashed from the field. When bound and shocked, the crop should have a couple of weeks of drying weather to cure before stacking or thrashing. It is safest to put into narrow stacks, and it is also a good plan to mix with layers of dry straw, especially if the alfalfa is bound and there is any indication that the straw is damp or green in the middle of the bundles. The straw improves the ventilation of the stack and absorbs the excessive moisture. The practice of using straw in this way, however, is seldom practicable—better stack only when fully cured.

To prevent loss of seed in stacking or thrashing, racks are sometimes covered with canvas and canvas is spread under the machine or along the stack in order to catch the shattered seed and the bolls which break off; also, care must be taken to handle the alfalfa carefully in pitching and loading. Large growers of alfalfa often stack the seed-crop in the field with the sweep-rake and hay-stacker. Those who practice this method usually cut with the mower and leave in bunches or windrows, drying the alfalfa quickly and stacking as soon as possible. This is a rough way to handle the crop and occasions more or less loss of the seed, but where a large area is handled it may be more profitable to handle the crop in this way than to handle it by a slower method and run the risk of damage from wet weather. When the alfalfa is left in gavels or bundles, as thrown off by the harvester, it should be taken up with a barley-fork. There will be less shattering of seed, however, if the alfalfa is in

small, compact bunches, not too heavy to be lifted in one forkful.

When the alfalfa is stacked, unless thrashed at once, within two or three days after stacking, it should be allowed to pass through the sweat before being thrashed, which requires several weeks or months. The best plan is to cover the stacks well to prevent damage by rain, and thrash late in the fall when the weather is dry and cool. In order to secure seed for fall sowing, it is often desirable to thrash from the field, and in a favorable climate or season, if a machine can be secured, this is the safest and most economical method of handling the crop.

Farmers differ in their opinions as to whether it is preferable to thrash with a huller or with a common grain-separator provided with a huller attachment. Some growers favor the use of the latter machine because the work can be done more rapidly. As a rule, however, when farmers have had a chance to use both kinds of machines, and have compared their work, the huller is preferred. Although it takes longer to thrash with a good huller, yet with a good crop enough more seed may be secured to amply pay for the extra time and expense required; in fact, the owner of a huller will often pay something for the privilege of thrashing over again the straw-stacks left by the common thrasher. Among the machines used, the Bidsell huller is well recommended; also, the Advance thrashing-separator with huller attachment received favorable mention. One farmer who has used both machines prefers the Advance thrasher to the huller.

STORING AND MARKETING THE SEED.

A good method is to sack the seed and store in a dry place, which may be kept free from mice and rats. It is stated by some growers, however, that mice and rats will not touch alfalfa-seed, provided they have free access to other grain.

The seed should be cleaned with a good fanning-mill before selling, and all light seed, dirt, and weed-seed removed as far as possible. This extra work is usually well paid for in the better price received for clean seed. If the alfalfa is green or damp when thrashed, the seed had best be spread twelve or eighteen inches deep on a tight floor in a dry place and shoveled over once or twice to dry it before it is cleaned and sacked. Prime alfalfa-seed should have a bright, clear light golden or slightly greenish color. Seed which has been wet or bleached in the

field will be darker in color, while heated seed will have a brownish dead color, indicating its lack of vitality.

From the grower's standpoint, the best time to sell the seed is when the price is highest. Prime seed usually sells at a high price early in the fall, when there is apt to be a shortage of seed for fall sowing, and again early in the spring, about March 1, seed often brings the highest price, depending largely upon the supply and demand. Aside from its use for sowing, alfalfa-seed has a standard market value in Europe for dyeing purposes, being used in the printing of cotton fabrics, and large quantities of seed have been exported from this country to supply the foreign demand. For different years and in different parts of the country, the price ranges from seven to fifteen cents per pound. A bushel of alfalfa-seed weighs sixty pounds. Three to four bushels of good seed per acre is a profitable crop. The average crop in the more favored alfalfa regions ranges from five to seven bushels per acre, while yields as high as twelve bushels per acre have been reported. A yield of less than two bushels per acre is an unprofitable crop.

On account of the uncertainty of the seed-crop, several growers who replied to the questions stated that they have about decided to discontinue growing alfalfa for seed. It is a fact, however, that when a good seed-crop can be secured it is a very profitable crop to the grower, and I hope that the information and suggestions contained in this bulletin may be of aid in assisting farmers to grow and handle alfalfa for seed with a greater promise of success than has apparently been the general experience in the past.

Grasshoppers in Alfalfa.

The grasshoppers are getting very bad here in our alfalfa. They are young ones and are doing considerable damage. They are liable to spoil the crop, if not permanently injure the fields, if they are not stopped.

Is there any way of getting rid of them that can be successfully used on a large scale?

We are trying to poison them by using 3 pounds of Paris green to 100 pounds bran mixed with sweetened water and scattered through the fields, but do not know yet what it is going to do.

If you know of any way of successfully fighting them, would be much pleased to learn your plan.

Ford County. W. T. HAMAR.

I enclose a press bulletin on grasshopper methods. I think the thing for you to do is to equip yourself with a hopper-dozer or hopper-pan. Make a pan 12 by 1 1/2 feet, 5 inches deep, of galvanized iron. Divide the length by three cross-partitions full depth, soldered in. Mount it on a sled-like arrangement, made of 2 x 4 studding, runners say 5 feet long for steady running. Set up back of the pan a screen of table oilcloth 4 feet high, extending also around the ends to the front, a couple of feet ahead of the pan. Draw this over the field by a horse at each end, or mount the pan and screen on a go-devil wheel and frame and push ahead of the horses. When using, put some water in the pan, and some coal-oil on the water. Cover the field with this machine, going over the places several times where the hoppers are thickest. You will get them by the bushel. Follow this method with the use of the bran or horse-dung poison bait, whichever you find cheaper and easier to get. The press bulletin will give you the mode of making. I have seen these methods used with almost perfect success in the Arkansas Valley alfalfa-fields. E. A. POPNOE, Entomologist State Experiment Station.

Honest Lightning Rods.

Dodd & Struthers, of Des Moines, Iowa, have made a reputation in a field where it was hard to win. They are manufacturers of lightning-rods that are really what they claim. These rods are made of pure copper, which is one of the best possible conductors of electricity. In order that the rods may be rendered more efficient and that a larger conducting surface may be presented, they are composed of a large number of wires woven together into a cable, welded and suitably capped at the ends, and finished with proper points. Equipped with these rods on his buildings, the property-owner ought to feel a degree of safety not otherwise possible. At least he will have the satisfaction of having done all that human knowledge and skill can suggest for the protection of his property against that mysterious agent which is all the more terrible because of its uncertainty. This manufacturing firm has won a reputation for good goods, square dealing, and reasonable prices. A letter addressed to Dodd & Struthers, Des Moines, Iowa, will bring full information if you mention THE KANSAS FARMER.

Stock Interests

PURE-BRED STOCK SALES.

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

- June 25-28, 1906—Sale of all beef breeds at Des Moines, Iowa, D. R. Mills, Mgr., Des Moines, Iowa.
- September 25, 26, 27, 1906—Hope Agricultural and Live Stock Fair & Sale. H. K. Little, Secretary, Hope, Kans.
- September 25, 26, 27, 28, 1906—Sale circuit of Duroc-Jersey Swine. John Schowalter, Manager, Cook, Neb.
- October 2-4-5, 1906—Glasco Live Stock Association sale of pure-bred stock, Glasco, Kans.
- October 10, 1906—H. L. Faulkner, Jamesport, Mo.
- October 11, 1906—American Galloway Breeders' Association Combination Sale, Kansas City, Mo.
- October 17, 1906—W. J. Honeyman, Madison, Kans.
- October 17, 1906—Poland-Chinas, W. A. Pruitt, Asherville, Kans.
- October 18, 1906—East Lynn Herefords, Will H. Rhodes, Tampa, Kans.
- October 18, 1906—Choice Duroc-Jerseys. C. A. Wright, Rosendale, Mo.
- October 18, 1906—Poland-Chinas, W. A. Davidson, Simpson, Kans.
- October 20, 1906—W. B. Dowling, Norcatour, Kans.
- October 20, 1906—Poland-Chinas, Frank A. Dawley, Wado, Kans.
- October 20, 1906—D. W. Dingman, Clay Center, Kans., Poland-Chinas.
- October 25, 1906—Poland-Chinas, T. J. Triggs, Dawson, Neb.
- October 27, 1906—Poland-Chinas, Chas. A. Lewis, Dawson, Neb.
- October 30, 1906—Leon Calhoun's sale of Poland-Chinas at Atchison, Kans.
- October 31, 1906—Poland-Chinas, O. B. Smith, Cuba, Kans.
- November 1, 1906—Poland-Chinas, Carl Jensen & Sons, Belleville, Kans.
- 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 20-23, 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 5, 1906—American Galloway Breeders' Association Combination Sale, Chicago, Ill.
- December 11-12, 1906—James A. Funkhouser and Charles W. Armour, sale pavilion, Kansas City.
- Improved Stock Breeders Association of the West Belt—November 13, 14, 15, 1906, at Arkansas City, Kans., I. E. Knox, Nardin, O. T., manager; Dec. 5, 6, 7, 1906, at Anthony, Kans., Chas. M. Johnston, Caldwell, Kans., manager; Dec. 18, 19, 1906, at Wichita, Kans., J. C. Larrimer, Derby, Kans., manager; Feb. 13, 14, 15, 1907, at Caldwell, Kans., Chas. M. Johnston, Caldwell, Kans., manager.

American Berkshire Congress.

The breeders of Berkshire swine will be pleased to learn that the committee appointed to complete arrangements for the second annual meeting of the American Berkshire Congress have entered actively upon the work of making the next session of far greater benefit to the breed and breeders than the eminently satisfactory conference held at Kansas City, in March, 1906.

The address of the committee in charge of the 1907 meeting of the American Berkshire Congress is as follows:

To Berkshire Breeders in America:—The large and enthusiastic meeting of Berkshire breeders, held at Kansas City, March 8 and 9, 1906, and happily styled a "Berkshire Love Feast," more than met the most optimistic anticipations of its enthusiastic promoters.

The Kansas City meeting was largely attended by representative breeders from all sections of the United States.

The most successful breeders presented papers at the meeting of great value, on every line of effort pertaining to the breeding, care, and marketing of swine. The able and practical thought brought out in the discussion of the addresses has assembled a volume of practical experience of untold value to the breed.

The good fellowship so apparent in all the meetings and the hours between sessions among the large number in attendance was unanimously conceded to be worth many times the time and expense incurred in the trip to Kansas City.

The public sale of bred sows held in connection with the Kansas City meeting made a new average for that popular and profitable point for holding public sales of Berkshires. The highest-priced sow sold for \$250, and the entire offering averaged \$79.85.

There was but one expression by all in attendance concerning the great value of the meeting and the amply demonstrated necessity for its repetition each year.

It was unanimously resolved to hold a similar meeting of Berkshire breeders and a public sale at the corresponding time in 1907.

The undersigned were appointed a committee to complete the organization of the Berkshire breeders of America and arrange for a similar meeting and sale in March, 1907.

The advantage has been duly considered of providing for a more comprehensive and effective line of cooperation among breeders at future meetings, so far as relates to the discussion of all matters pertaining to the breeding, care, exhibition, and sale of

Berkshires. This desire for a well-matured plan of operation has led to the organization of the American Berkshire Congress, which includes in its membership without fees or dues, every Berkshire breeder who desires to cooperate, as outlined above, with his fellow breeders in promoting the best interests of the breeders and the breed.

The next meeting of the American Berkshire Congress will be held at Springfield, Ill., on March 7 and 8, 1907, and to which meeting every breeder is cordially invited to attend and consign a bred sow to the public sale to be held in connection with the Congress.

There will be no better opportunity to sell to advantage a bred sow than the public sale to be held in connection with the next session of the American Berkshire Congress.

Berkshire breeders can not better serve their interest than by selecting the best sow in their herds and fitting her for this sale. It need not be said to the experienced that the better the boar to which the well-bred sow is bred, the better the price that may confidently be expected from the properly fitted animal.

The committee invite all who wish to consign a bred sow to the 1907 sale of the American Berkshire Congress, to file their intention with the secretary, Charles F. Mills, Springfield, Ill., on or before August 1, 1906.

The program for the next meeting is now under consideration and each reader of this announcement is invited to suggest topics and nominate speakers.

The American Berkshire Congress with the same cordial and earnest purpose to intelligently consider and determine matters of common interest that characterized the last meeting can be depended upon to greatly aid in improving the breed and increasing the demand therefor.

Respectfully submitted,

- N. H. GENTRY, Sedalia, Mo.,
- A. J. LOVEJOY, Roscoe, Ill.,
- C. A. STANNARD, Emporia, Kans.,
- GEO. S. PRINE, Oskaloosa, Ia.,
- CHARLES F. MILLS, Springfield, Ill.,
- Committee of Arrangements.

Baby-Beef Production with Western Feeds.

PRESS BULLETIN NO. 151, FORT HAYS BRANCH EXPERIMENT STATION, KANSAS STATE AGRICULTURAL COLLEGE.

In order that the Western farmer may realize the most profit from his land for a series of years and still maintain the fertility of the soil, he should not neglect the stock industry. Whether it be hogs or cattle; whether he feed for beef or milk matters little, for in any case a part of each crop taken from the field will be fed on the farm, and returned to the land in the form of barnyard manure, instead of being shipped direct to other markets. This Western soil is fertile, yet not inexhaustible.

Realizing the importance of retaining the fertility of the soil and desiring to be more able to answer requests for information as to the feeding-value of various grains, the Fort Hays Branch Experiment Station fed sixty head of calves with feeds that can be grown with a marked degree of certainty in the West. The calves were grade Hereford and Shorthorn, steers and heifers. They had been weaned, and vaccinated for blackleg just previous to putting in the feed-lots. The 60 head, averaging 400 pounds each, were uniformly divided into four lots consisting of ten heifers and five steers to the lot, and each bunch fed a different ration. The steers were raised at the station and the heifers were purchased in the vicinity of Hays.

After taking the average of three successive weighings, the calves were carefully apportioned into lots and each lot of calves was fed roughage for two weeks, after which they were again weighed. These weights of the various lots being sufficiently close, no changes were made and the first grain was fed December 7, 1905, 157 days previous to the close of the experiment.

The four lots of calves were numbered and rations given to them as follows:

- Lot IV. Fed corn-and-cob-meal and alfalfa hay
- Lot V. Fed ground barley and alfalfa hay.
- Lot VI. Fed ground emmer and alfalfa hay.
- Lot VII. Fed ground Kafir-corn and alfalfa hay.

In all the feeding, the alfalfa was placed whole in the bottom of the feed-troughs and the ground grain poured over it. The cattle were fed twice daily, morning and evening, the grain and hay being weighed out to each lot at every feed. They were started on feed with all the roughage they would clean up, which was an average of 9

Horse Owners! Use

GONBAULT'S Caustic Balsam

A Safe, Speedy, and Positive Cure
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Eruptions from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scur or bluish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland, O.

No More Blind Horses For Specific Ophthalmia, Moon Blindness, and other Sore Eyes, BARRY CO., Iowa City, Ia., have a cure

STOLL'S STAY-THERE EAR MARK.

The best and cheapest ear-mark made. It possesses more points of merit than any other make. Send for samples. H. C. Stoll, Seaside, Neb.



Sanitary Hog Troughs

Will not rust or rot out and will last a life time. Every breeder should use them. Prices furnished on application.

Blue Valley Mfg. Company
Manhattan, Kansas

Ring-Bone

There is no case so old or bad that we will not guarantee
Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of **Fleming's Vest-Pocket Veterinary Adviser**. Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durably bound, indexed and illustrated. Make a right beginning by sending for this book. FLEMING BROS., Chemists, 212 Union Stock Yards, Chicago, Ill.



LIVE STOCK INSURANCE
The cheapest insurance you can get is a DISEASE PREVENTIVE. Don't wait to cure disease—keep it away from your live stock. You can do it with **Dipolene** which kills all disease germs, sheep ticks, scab, lice, fleas and all body vermin. Perfectly harmless. Promotes health—sprinkled about barns and lots keeps them sanitary, wards off disease. Write for FREE book, "DIPPING FOR DOLLARS." MARSHALL OIL CO., Box 13, Marshalltown, Ia.

CAR-SUL

The Disinfectant Dip That is Guaranteed.
Stronger and more efficient than any other. Absolutely harmless. Does not gum the hair, crack the skin, or injure the eyes. Kills all lice and vermin. Cures scurvy, mange and all skin diseases. Heals all cuts, wounds, galls and sores. For hogs, cattle, sheep, young stock, poultry and general household use it has no equal.
Send For Free Book on care of hogs and other live-stock. If your dealer does not keep Car-Sul, do not take an imitation but send to us direct. We Pay the Freight.
Moore Chemical & Mfg. Co.
Manufacturers of Bleaching Soda, 1501-03 Broadway St., Boston City, Mo.

pounds per head daily, and with a grain ration of 2 1/2 pounds per head daily. The quantity of grain was gradually increased and the roughage cut down when necessary. The calves took readily to the feed, and at no time during the experiment did any of the lots seem to tire of their ration. The accompanying table gives the total amount of feed eaten, the pounds of grain and hay required to make 100 pounds of gain, the average beginning and closing weights, and daily average gain per head for the entire period, including the preliminary feeding, or 168 days. There were 15 calves in each lot:

pages of the best up-to-date information by an expert. It's cheap. That sanitary hog-trough advertised by the Blue Valley Manufacturing Co., Manhattan, Kans., is a good one and it's cheap, too. Write them about it. That stationary specialty case gotten up by THE KANSAS FARMER stock printing department was a happy thought. It is nicely gotten up and contains just what the modern farmer or breeder needs. Look it up. It is advertised on page 660. McLaughlin Bros., of Columbus, Kansas City, and St. Paul, write as follows: "At the great Paris Show, being held this week, which was established last year for the first time by the French Government, and which will be an an-

TABLE I.

Lot.	Ration.	Feed.		For 100 lbs. gain.		Weights and gains.		
		Grain, lbs.	Hay, lbs.	Grain, lbs.	Hay, lbs.	Av. per head beginning, lbs.	Av. per head close, lbs.	Av. gain per day, lbs.
IV.	Corn-and-cob-meal and alfalfa.	22,118	17,524	484	383 1/2	400	704	1.81
V.	Barley and alfalfa.	17,512	18,349	416	435	395	675	1.66
VI.	Emmer and alfalfa.	17,174	19,465	430	487	401	667	1.58
VII.	Kafir-corn and alfalfa.	18,574	20,510	457	505	404	675	1.61

It will be observed from the table that Lot VII ate more pounds of both grain and hay than any of the other lots, excepting the grain eaten by Lot IV, which received corn-and-cob-meal that weighed 70 pounds per bushel instead of 56 pounds per bushel, as Kafir-corn. In the column headed "Grain and Hay for 100 pounds Gain," emmer compares favorably with barley, although a trifle more alfalfa was required to produce 100 pounds gain with emmer than the same gain with the barley ration. It required 54 pounds more of the corn-and-cob-meal to produce 100 pounds of gain, than of the ground emmer, but with the latter, 103 1/2 pounds more of the roughage was fed than was fed with the corn-and-cob-meal ration. With the Kafir-corn ration more pounds of both grain and hay were required to produce 100 pounds gain than with either the barley or the emmer rations. It should be stated, however, that both emmer and barley are quite laxative feeds, and when fed with alfalfa hay the tendency is to produce looseness when a heavy ration is fed. Because of the experimental feature of the feeding, nothing to counteract this laxativeness of the rations, such as prairie hay or Kafir-corn would have been, was added to either the barley or emmer rations. And it is not unlikely that, had prairie hay been added to both of these rations during the last 70 days of the experiment, the results would have been still more favorable. The emmer-fed calves, up to within 70 days of the close of the test, showed better gains than either of the other lots.

nual show, our stallions won every first prize and we also won first prize with our Percheron collection. There is no show in the world where it is such a great honor to win as this one, and our success, reported in the cable message received to-day, is another evidence that Mr. James McLaughlin continues to buy the very best stallions produced in France, the best that the world affords."

In this issue of THE KANSAS FARMER appears the advertisement of the Gold Standard Herd of Duroc-Jersey swine, belonging to Chas. Dorr, of Osage City, Kans. Mr. Dorr is well known as a breeder of this breed of hogs, and the spring pigs that he now has to offer come from some as good sires as there are in Kansas. His herd-boars are hard to beat for quality and breeding. Honesty is a boar that weighs near 900 pounds, of good finish and typical of the breed. Royal Rob was sired by Van's Perfection, one of the most famous hogs in the West. Scotty is by Honesty and is one of Mr. Dorr's own breeding. Young Tip Top is by W. L. Addy's Tip Top Notcher, now owned by Clayton & Otis, of Fisk, Iowa. And last, but not least, is Ohio Chief Junior, which stands very high in Mr. Dorr's estimation as one of the best boars in the State. Mr. Dorr plans to show this boar at the State fair, at which time he will probably weigh right around 900 pounds, and is as mellow as a pig. Mr. Dorr's best recommendations come from his pleased customers, and they are all pleased. If you are looking for good Duroc-Jerseys of either sex or any age, write a line to Chas. Dorr, Route 6, Osage City, Kans., and compare prices and quality. Please mention THE KANSAS FARMER.

Protein for Profit.

Perhaps no substance in the chemistry of every day life has attracted and held the attention of everybody as has protein. There are doubtless many people who do not know what protein is, but they do know that it is a very

TABLE II.—THE FINANCIAL RESULT.

Lot.	Calves cost.	Feed cost.	Cost of 100 lbs. gain.	Sold for.	Net proceeds.	Profit or loss per head.	Margin betw'n buying and selling price of calves.
IV.	\$224.92	\$177.14	\$3.89	\$4.75	\$449.11	\$3.13 gain	\$1.00
V.	222.04	179.95	4.29	4.60	417.25	1.02 gain	0.85
VI.	225.56	186.12	4.65	4.35	383.07	1.84 loss	0.60
VII.	227.28	202.83	5.01	4.50	410.59	1.80 loss	0.75

Note.—In computing cost of feed, local prices for the various feeds were used, i. e., ear corn 39c per bushel, cornmeal 42c per bushel, corn-and-cob-meal 42 1/2c per bushel, barley 36c per bushel, emmer 36c per bushel, Kafir-corn 46c per bushel, and alfalfa at \$5 per ton.

The calves were valued at \$3.75 per hundredweight at the beginning of the experiment, which gives a margin of \$1 for those of Lot IV, 85 cents for Lot V, 60 cents for Lot VI, and 75 cents for Lot VII, between the selling price of the respective lots at the Kansas City Stock Yards, where each lot was sold on its merits, when the experiment closed, and the purchasing price. The cost of 100 pounds of gain ranges from \$3.80 with the corn-and-cob-meal ration, the least expensive, to \$5.01 with the Kafir-corn as a ration, and most costly; the cost of 100 pounds gain with the barley and emmer rations being \$4.29 and \$4.65 respectively.

In the slaughter test, Lot IV dressed 56.5 per cent, Lot V, 56.4 per cent, Lot VI, 54.7 per cent, and Lot VII 57.3 per cent.

The price per pound for which the calves of the several lots sold indicates very nearly the condition, or ripeness, of the cattle at the time of shipment. The percentage of dressed weight, with the possible exception of Lot VII, which dressed out nearly one per cent higher than any of the other lots, compares favorably with the selling prices. The emmer-fed calves did not stand shipping as well as the rest, and the shrinkage was nearly two per cent more than the Kafir-corn-fed cattle. The shrinkage on the entire sixty head was 4.67 per cent. O. H. ELLING.

Gossip About Stock.

That new book by Prof. H. R. Smith on Profitable Stock-Feeding is too valuable to miss getting. Four hundred

important and very necessary substance in life's economy. Most people know that unless they have a proper amount of protein in their food, their rations are deficient and they suffer. Experience has taught by hard lessons that the domestic animal must have a proper supply of it or he fails of his purpose in life. He doesn't want too much or too little, but he must have it and it must be in such shape that his digestive apparatus can best handle it. For hogs nothing has been found to equal a packing-house product known as digester tankage in supplying a large percentage of protein, with just enough of fat and phosphates to make it at once palatable and digestible. Swift's Digester Tankage contains 60 per cent of protein, 10 per cent of fat, and 6 per cent of phosphates, and is so compounded that the hogs keenly relish it. Fed in small quantities, say 1/2 pound per day, there has never been discovered anything that is so productive of growth and thrift as does this. It is especially valuable to brood sows, and their litters are strong and healthy. This is a most important subject and if you will mention the advertisement in THE KANSAS FARMER on page 653 and will write to Swift & Co., Desk 8, Animal Food Dept., Union Stock Yards, Chicago, you will receive a free booklet named "Protein for Profit."

Union Pacific Bulletin, June, 1906.

One fare for the round trip to the Northwest: To Puget Sound and Portland, direct. Returning via California, \$12.50 additional. Tickets on sale June 18 to 22, inclusive. Limit 60 days. To California, Portland, and Puget Sound: Daily low excursion rates June 1 to September 15, applying via variable routes, limit October 31. To California and Return: Still lower rates June 25 to July 7, inclusive; returning direct or via Portland. To Colorado and Return: Daily from June 1 to September 30, one fare plus 50 cents. Still lower rates for the

Get All Your Wool Is Worth.

Wool Growers! Buyers in the country are trying to obtain your wool at a low price to make up for last year's losses. If you want the highest market price instead of the lowest

Ship Your Wool To Us

We will get full value for you at once, and do it for one cent a pound commission.

Reference any bank anywhere. Write us today.

Silberman Brothers, 122, 124, 126, 128 Michigan St., Chicago, Ill.

Make More Money Off Your Hogs

Price, \$10

Freight prepaid on all orders for a limited time.



Hog and Sheep Feeder. Mention Kansas Farmer.

That's what you want to do, and that's what you can do if you use Wright's Stock Feeder. Any man who has a sow and litter of pigs can't afford to be without one of these feeders. It saves feed, and always keeps it in good condition; makes big, strong, thrifty pigs; develops the whole bunch evenly, and will pay for itself in one season. Used for slop, shelled corn, oats, barley, ground feed, etc.

WRIGHT'S STOCK FEEDER is now being ordered by up-to-date hog raisers everywhere. Hundreds using them. They all say they would not think of raising hogs the old way.

My catalog tells all about the hog, sheep and poultry feeder. Send for it.

C. A. WRIGHT, Rosendale - Missouri

BLACKLEGOIDS



THE SIMPLEST, SAFEST, SUREST AND QUICKEST WAY TO VACCINATE CATTLE AGAINST BLACKLEGS. No dose to measure. No liquid to spill. No string to rot. Just a little pill to be placed under the skin by a single thrust of the instrument. An Injector Free with a Purchase of 100 Vaccinations. For Sale by All Druggists. Literature Free—Write for it.

PARKE, DAVIS & COMPANY. DETROIT, MICHIGAN, U. S. A. BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Indianapolis, Minneapolis, Memphis, U. S. A.; Walkerville, Ont.; Montreal, Que.

Lump Jaw

[The old reliable absolute cure for Lump Jaw is

BARTLETT'S LUMP JAW CURE

It has stood the test and has cured thousands of cases. Don't fool with untried remedies. No matter how bad or how long standing Bartlett's Lump Jaw Cure will do the work. A positive and thorough cure easily accomplished. Latest scientific treatment. Unexpensive and harmless.

NO CURE NO PAY.

My method fully explained on receipt of a postal. Write to-day.

CHAS. E. BARTLETT, Chemist, COLUMBUS, KANS.

RELIEF IS SURE.

Spavin, Ringbone, Curb, Splint, all Lameness and Bony Enlargements cured quickly and permanently with

Kendall's Spavin Cure.

Spavin Cure a Wonder. Holderness, N. H., July 29, 06. DR. B. J. KENDALL CO. Gentlemen—Enclosed find a two cent stamp for which please send me your valuable horse book. I have used KENDALL'S SPAVIN CURE and it is a wonder. CHAS. A. HASKELL. Price \$1.00 for 25. Greatest known liniment for family use. All druggists. Accept no substitute. The great book, "Treatise on the Horse" free from druggists or Dr. B. J. KENDALL CO., Enosburg Falls, Vt.

Gold Standard Herd

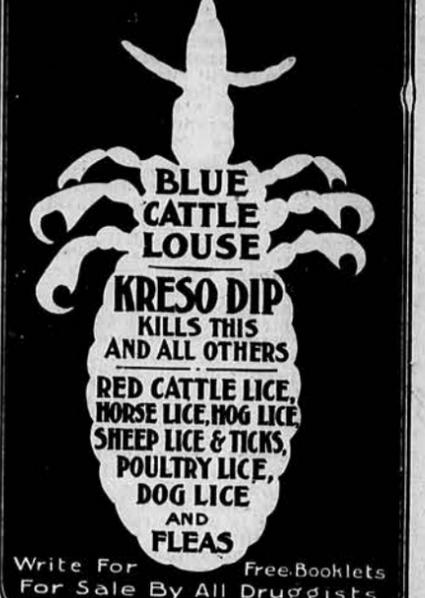
Seventy-five head of pedl great DUROC-JERSEY spring pigs for sale cheap. Chas. Dorr, Route 6, Osage City, Kansas

Elks' great meeting at Denver. Tickets sold July 10 to 16, inclusive.

Homes for Thousands. The Shoshone Indian Reservation lands will be opened to settlement August 15. Excursion rates less than one fare round trip, daily, July 12 to 29, \$26.70 from Chicago, July 12 to 29, \$26.70 from Chicago, via the Chicago & North Western Railway, the only all-rail route to the Reservation border. Rates of registration July 16 to 31. Write for pamphlets telling how to secure one of these attractive homesteads. All agents sell tickets via this route. W. B. Kniskern, Passenger Traffic Manager, Chicago.

Denver, Colorado Springs, Pueblo and Return, \$17.50. Santa Fe. Tickets on sale daily, good returning as late as October 31, libe. 11 stop-over privileges allowed. Fast Colorado Flyer from Topeka 10.35 p. m. arrives Colorado early next morning. Rock ball track and Harvey ea.ing. houses. T. L. KING, C. P. & T. A., Topeka, Kans.

KRESO DIP KILLS LICE ON ALL LIVE STOCK EASY & SAFE TO USE



BLUE CATTLE LOUSE KRESO DIP KILLS THIS AND ALL OTHERS RED CATTLE LICE, HORSE LICE, HOG LICE, SHEEP LICE & TICKS, POULTRY LICE, DOG LICE AND FLEAS. Write For Free Booklets For Sale By All Druggists

BRING WORK

BE SURE AND WORK THE HORSE GALL CURE. Brings sore shoulders and harness galls. Bickmore's Gall Cure will cure it while you work the horse. BICKMORE'S GALL CURE is guaranteed or money back to cure all harness or saddle galls, cracks, cuts and br. Look for the trade mark. Write to-day for our new Illustrated Horse Book and large FREE sample box Gall Cure, for 10c to pay postage. Sold by dealers. Bickmore Gall Cure Co., Box 916 Old Town, Maine.

Home Departments

CONDUCTED BY RUTH COWGILL.

Out at Buck Miller's.

DR. H. W. ROBY, BEFORE THE ANNUAL MEETING OF THE SHAWNEE COUNTY OLD SETTLERS' ASSOCIATION.

Did you ever know Buck Miller?
That old farmer-politician
Down on Whetstone Creek in Kansas?
Those of you who answer, "No, sir,"
Are as surely to be pitted
As that group of sorry people
Who are doubtful about heaven.
But, I know that some among you
Knew that jolly Whetstone Hoosier
Better than you know your Bible.
And you knew that Buck would rather
Have an afternoon or evening
With his jolly chums and neighbors
Than a royal Persian palace
With a coin-chest and seraglio.
Buck was, first of all, a farmer,
Then an active politician,
Life-long democratic statesman,
Loved to talk of Andrew Jackson,
Went to every sort of meeting
Called a caucus or convention,
To support some worthy neighbor,
Who might chance to run for office.
Could not talk for cold potatoes,
But that mattered very little.
He was always there, and ready
For one speech at least, and sometimes
Tried to make a half a dozen.
Every schoolboy in the county
Knew beforehand what was coming.
Every journalistic tyro,
Every callow cub reporter
Had it written down beforehand,
And the press room kept it standing
Like a yearly advertisement.
For they knew when Buck got started,
He would call out—"Mister Chairman,
I am here, sir, fer to tell you!"
Then, for want of words to follow,
He'd go back, and say it over,
"I am here, sir, fer to tell you!"
Then the man would smile and stammer,
And go on a little further.
"I am here, sir, fer to tell you—
I jest nachully can't help it—
I am here, sir, fer to tell you!"
Then the crowd would cheer the
speaker,
Shouting—"Go on!—Miller!—Miller!"
Then Buck Miller's face would crimson
Like a ruddy summer sunset,
While he tried to find a sentence
Big enough for the occasion.
Then, he'd turn and tell the chairman—
"I am here, sir, fer to tell you
That the Democratic party
Needs a leader like our neighbor,
I jest nachully thought I'd tell you,
I'd jest give you men a pinter,
Let you know about our neighbor,
He's the feller ought to go there
And be in the legislatur."
Then the chaps in the convention,
Like the fabled bulls of Bashan,
Would break out and roar and bellow.
But they never let the speaker
Come in gunshot of his purpose.
Never heard his peroration,
And those speeches of Buck Miller's
Still are hanging by the eyebrows,
In the silent halls of Kansas,
Uncompleted, and will not be
Till you hear them over yonder.
Such a man with such a talent
Is not easily forgotten.
For he had more knobs and wrinkles
In his personal equation
Than the famous Sulu sultan.
He was strangely odd and awkward,
In his make-up and demeanor.
He was bald and short and stocky,
Lion-shouldered, bullock-chested,
And his legs were warped asunder
So much like a pair of rainbows,
That a sheep might run between them
Without fear of being captured.
He had eyes that always twinkled,
Like two stars wrapped in a blanket
With two holes for them to peep
through.
He would smile from night till morn-
ing,
And then keep it up till sunset,
And repeat it on the morrow.
He had such a sunny spirit
That where'er he chanced at midnight
There the cocks would crow for morn-
ing.
He was so serene and gentle,
That the birds about the farmyard
Would fly down close by and twitter
When they saw him coming near them.
And the people on the highway
Driving to or from the city
Used to stop beside the roadway
Just to hear the "singing farmer."
Buck was fond of dogs and horses,
Fond of women and of children,
Liked his household and his kindred,
Liked his town and State, and country,
And he also liked Buck Miller.
And the fact is worth recording,
That Buck Miller liked his neighbors,
And his neighbors liked Buck Miller.
Liked his honest ways and dealings,
Liked his open-hearted candor,
Liked his holidays and picnics,
Wedding feasts and birthday parties,
Christmas dinners and thanksgivings,
Liked his Fourth of July's better
Than big city celebrations
Where you got your four legs shot off
And your bones knocked into kindling,
And went home and had the lockjaw.
Young and old, they liked his peaches,
Liked his apples and his cider,
Liked his mammoth watermelons,
Which belonged to everybody
If they chose to come and take them.
And you never saw such doings
As they had out there at Miller's.
Everybody laughed and cackled,
Laid aside their cares and troubles,
And became so gay and airy,
That a blind man on the highway
Would suppose the crowd was crazy,
And the place was some asylum.
But the people of Tecumseh
Knew that all was sane and wholesome
In those happy convocations.
Mother Miller was the idol
Of a host of happy children,
And a crowd of grown-up people,
She got up such dainty dinners,
Such superb and splendid suppers,

That she fairly won the title,
"Queen of culinary artists."
"Mother Miller is the nicest,
Goodest woman in the county,"
Said one youngster to another
Going home from Mother Miller's.
"Yes, you bet, she's sweet as honey,"
Said the other smiling urchin.
"With his pockets full of cookies,
"T' haint no one can beat Ma Miller
W'en it comes ter feedin' people,"
Said one farmer to another,
As they hoofed it home one evening.
"Bet yer life," the other answered,
"She can beat th' Jews and Gentiles,
An' git up a better supper
Than them cooks of ole Belshazzar
That they talk of in the Bible."
When Buck Miller had been married
Fifty years to Mary Roberts
All the neighbors were invited
To attend their golden wedding.
And they had a lot of speeches,
And a wagon load of presents,
And they gave Buck fifty dollars,
All in one big, shining gold piece,
For his fifty years of wedlock.
Then some man among them shouted,
"Speech from Miller! Speech from Mil-
ler!"

And amid a storm of laughter,
Buck began his patent lingo,
"Neighbors, I am here to tell you,"
Instantly, the crowd applauded,
And made such a happy racket
That the speech was never finished.
Then they called for Mother Miller,
And the bride of fifty seasons
Said, between her tears and laughter,
"Very nice of you folks. Thank you!"
Then they hunted for a parson
To wind up the celebration,
But, as no such man responded,
Buck declared he thought the preachers
Ought to stick to their own business,
And not clutter up religion
With so many foolish dogmas.
Said he thought that Captain Wyatt
Was about as good a preacher
As he needed in his business
Unless he got killed or married,
Which he didn't think of doing.
But he'd just call out the Captain
For a little "talkerumption."
Then Dan Wyatt stood before them,
Blushing like a summer morning,
And declared that he could never
Do the honors at a wedding
That had lasted fifty seasons.
And the crowd said,—"We'll excuse
you!"

And the golden wedding ended.
Then, one Fourth, when old Buck Mil-
ler,
Sought to honor this great country
With the biggest celebration
Ever held in old Tecumseh,
There was truly, "something doing."
People flocked from all directions
As the black birds flock in autumn,
Making such a joyful chatter,
Such a howdy-do, and hurrah,
That the cattle in the pasture
Leaped the fence and broke for shelter.
And the crowd renewed its tumult
And made such a clang and clatter,
With their singing, shouting, shooting
Fire crackers, guns, and cannons
That the Shawnee hills resounded
Like those far-off shores where Togo
Sank the ships of Rojstevsky.
Then our Kansas Patrick Henry,
Our intrepid son of thunder,
Took the stand, and you remember,
Overmyer's great oration,
Rolled and thundered through the val-
ley

Till the people down the river
Thought a cyclone must be coming.
After him, young Charley Curtis,
Who was newly come from Congress,
Woke the echoes with a tribute
To the day and the occasion,
And a bouquet to the ladies.
Then the handsome Wyatt sisters,
Called "the nightingales of Kansas,"
Decked with flags, and gay with bunt-
ing,

Set the groves and meadows ringing
With the stirring songs of freedom,
Winding up with "Yankee Doodle,"
In a way to make old Caesar
Wish that he had lived in Kansas.
Then, Buck Miller asked his cronies
If they'd have a little something
Just to keep their throats in order,
Notwithstanding prohibition.
And those cronies, just for manners,
Went down cellar and took something,
(You can guess as well as I can.)
While the women and the young folks
Clinked their brimming cider glasses
In a bumper to Buck Miller.
When the red-faced sun departed,
Saying he was loath to leave them,
Mother Miller called the people
Out among the trees for supper.
When the ample feast was ended,
And a shower of Roman candles,
Fire balls, balloons, and rockets
Filled the sky with living rainbows,
Then the young folks all assembled
On the greensward for a hoe-down;
And old Abe, the sable minstrel,
Plinked and harmonized his fiddle
And threw out his cheerful challenge
To the waiting crowd before him
Saying—"Git you pardners, honeys,
"Scort de ladies to dere places,
Gents 'll bow wen day's salutin'—
An' give right han's to dere pardners."
With his head, he timed the music,
While he called the sets and figures,
Through the dance's dreamy mazes,
Through the minuet and schottish,
Waltzes, reels, quadrilles, and polkas,
As no other man could call them.
Feet that knew no sense of langour,
Tripped and twinkled in the moonlight,
And such dancing!—Nothing like it
Had been seen upon the planet,
Since the women of old Israel
Came to dance for Saul and David.
Then, without the slightest warning,
Save the smothered exclamation,
"I jest nachully can't help it,
I must git there!" old Buck Miller,
Followed by those mellow seigniors,
Seized their partners, and plunged
headlong
Into that wild crowd of dancers;
Hickey, Curtis, Knowles, and Shepherd,

Colonel Veale and Justice Kingman,
Wyatt, Milliken, and Ritchie,
Chase and Gordon, Horne and Davis,
Guthrie, Peffer, and Judge Martin,
Harvey Rice and Deacon Bodwell,
With a double score of others,
Having caught the fierce infection,
Clumped and clattered through the
mazes.

Of that wild, vehement hoe-down,
That historic July evening,
But no bard this side of tophet,
Has the skill to tell the story,
Of those early days in Kansas,
Which those pioneering people
Down Tecumseh-way, so often
Celebrated with Buck Miller,

Buck has gone to his last picnic,
In the tuneful groves yonder,
And a thousand friends and neighbors,
Primitive, pale-faced Shawnees,
Lift their eyes to heaven and whisper,
"Merciful and all-wise Father,
Feast our friend on heavenly manna,
Till the time when we shall follow!"

A Cup of Cold Water.

This is a refreshing subject for these
dry, hot days, and what is more wel-
come than a cup of cold water to the
thirsty traveler or weary sojourner?
Christ knew from experience what He
was talking about when He pronounced
a blessing upon those who should give
a cup of cold water. He understood
the true significance of the figure. No
doubt, He had many times felt the pain
of extreme thirst and had been re-
freshed by the cup of cold water from
the hand of some thoughtful one. To
give a cup of cold water is such a little
thing to do, but these little, thoughtful
acts are the ones that count, and be-
cause they seem so trivial, are so of-
ten neglected. Let us not be unmin-
dful of them. There are only a few op-
portunities to perform great acts. A
smile to the sensitive and timid; a word
of cheer to the discouraged one; a flower,
the loan of a book or picture to the
"shut-in;" a neighborly call, where the
round of daily toil keeps the woman of
all work confined within the four walls
or within the 160 acres, are some of
the little things, but each is a cup of
cold water to the thirsty.

The use of pure, cold water is essen-
tial to health as well as to comfort.
Many times the demand of nature for
water is disregarded until it ceases to
call, and gradually the system adapts
itself to conditions, and not sufficient
water is taken, consequently the health
is impaired. Water acts not only as a
solvent of foods, but it flushes the sew-
er of the body, carrying off the impur-
ities. It is the natural drink of man,
and no other liquid can supply its place.
It constitutes from two-thirds to three-
fourths of the entire weight of the
body. Very little water should be tak-
en with the food, as the salivary glands
furnish a watery fluid that assists in
digestion, and too much water dilutes
the fluid. A cup of water upon going
to bed, one immediately after rising in
the morning, and one an hour before
eating, and one, two or three hours af-
ter, is conducive to health. Iced water
should be avoided as it chills the stom-
ach, and water taken in large quanti-
ties at a time and too rapidly, or when
one is warm or tired is unhealthy and
often dangerous.

During the coming hot days, when
the harvest work is on, the danger will
be in drinking too much at a time
when overheated. A free perspiration
uses the moisture of the body and more
water is required, but great care should
be taken as to the amount, taking just
a sip at a time. It is important to
know that the water you drink is pure
or it will be poison to you. There is
so much danger of its being impreg-
nated with germs, causing typhoid fe-
ver or other diseases. Care should be
taken that the wells are so located that
they will not receive the drainage from
barns or cess-pools.

It is a pity that any living creature
should suffer for the want of a drink
of water through thoughtlessness or ig-
norance, and yet I believe many little
children do. They can not ask for a
drink in words, but by plaintive crying
they do beg for it. Many a poor little
thing is jostled and rocked and alas,
sometimes scolded and spanked for cry-
ing, when it is only asking for a drink
of water. Many make the mistake of
thinking that the milk it takes supplies
the want. Even the very little child
requires water, and it should be given
from a spoon, especially in warm
weather.

There are other dumb creatures that
often suffer for water, and for whom
man, the lord of creation, is responsi-
ble and ought to provide. Every farm-
house should have its well of pure wa-
ter near, with an easy-acting pump and
a tin cup attached. It is a pleasant
sight to the passer-by. Every farm-
yard should have a windmill and a wa-
tering trough through which is ever-



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A Sausage Story.

"What do you think that stupid Nora of mine did this morning?" said Mrs. Martin to her friend, Mrs. Rose, as they met at market. "She threw away all our sausage for breakfast because they burst open in cooking, and she thought they were spoiled."

"I'm not laughing because you lost your breakfast," replied Mrs. Rose, "but the word 'sausage' sends our family nearly into convulsions. When the Maythams visited us a short time ago, I ordered some sausage for breakfast. I wanted it particularly nice, so I cautioned Nellie, who was just over from Ireland, and had only been with me two weeks, to be sure and prick each sausage so they would not burst open. She looked a little dazed, and I explained, 'Just stick a fork in each one.' A beam of intelligence crossed her face and I felt sure she comprehended and our simple breakfast would be all right.

"Imagine our feelings when Nellie, next morning, deposited in front of George, a platter on which the sausages marched in battle array, each bearing aloft a kitchen fork! I said 'each,' but I am mistaken—one poor little sausage brought up the rear with a corkscrew. Nellie, realizing from my face that something was wrong, explained apologetically, 'Indade, mum, the forks give out, end I sez to myself, sez I, wan prick will do for the little wan.'"

A literally true tale, this.—Good Housekeeping.

Dish Washing.

"It's terribly plebeian, I s'pose," said the girl with the dreamy eyes, balancing herself on the kitchen-table top, "but I just love to wash dishes."

Her young married friend dropped the cut-glass dish she unluckily happened to be wiping at that instant, and surveyed her caller unheededful of broken bits of a wedding present strewn the floor. The girl looked sane, so she merely questioned, with scornful emphasis: "You do! You must! Did you ever try it?"

"Seriously, Estelle, I mean it, but I don't do the deed as you do. See here, let me show you how to wash dishes scientifically and incidentally how to preserve the process from drudgery.

"Clear the table by piling all the plates of a size together before removing them, the cups, saucers, silver, and glass, etc., in similar manner.

"Have ready a dishpan filled with hot, soapy water, a rinsing pan close beside it filled with clear boiling water, and a wire pan for draining them.

"Wash the glass, drying it at once out of the suds and put it away. Then the silver, rinsing it, drying and putting it also out of the way.

"Then proceed with the cups, dipping each in the hot-water pan and turning it top downward in the draining pan. Pile the plates together against a cup and the other dishes around them.

"I forgot to say that I always have the dishes well cleared before putting them into the water, and, if they are particularly greasy I pour hot water over them first, and always fill the kettles and other cooking utensils with water to stand. When the table dishes have all had their bath, I turn out the water, rinse the dishpan, and proceed to dry and put them away. They will be found to be nearly or quite dry so that this is a mere form. Then I am ready for the cooking dishes and the cooking dishes are ready for me, so with fresh, hot, soapy water I proceed as with the others except that I do not allow them to drain. Rather pile them up in the rinsing pan and when all are done, dishpan put away, pour hot water over them and dry them with their own towel at once."

"Huh!" said the married woman, who had to wash her own dishes because her flat was too tiny for both herself and a maid. "I don't see that that's very different from the way anybody and everybody does. Don't bother me with your scientific dish-washing, and don't tell me that you ever did anything so practical as to wash dishes in all your life."

But she had, and she was right. Even dish-washing may be made at least less of an irksome task by following the general advice of the "girl with the violet eyes" and the specific suggestions contained in the following "Code of the Dish-washer."

Insist upon plenty of hot water, if you have to build up a fire and wait for the water to heat.

Use white soap only. It is better for

the dishes and infinitely better for the hands.

Use a handled washer, if you will; otherwise you must spend some time with the hands or they will soon become hard and unsightly.

Don't bother with cracked or nicked cups. You are likely to cut your hands with them. Throw them away.

Set about the task with a light heart, willing hands, and pleasant thoughts, and it's not, you'll find, so hard, long, nor disagreeable a task as it seems.

Plebeian or not, in these days of troublesome servants and the more troublesome lack of them, any housewife is liable to be called upon to "wash dishes," and she may as well make the best of it.—N. Y. Mail.

Some Good Recipes for Eggs.

Egg Salad.—Boil six eggs twenty minutes. Cut the whites in thin slices, or chop them very fine. Arrange a bed of cresses on a dish. Make nests of the whites, and put one whole yolk in the center of each nest; or rub the yolks through a fine strainer over the whites. Sprinkle French dressing over the whole. Serve small balls of cottage cheese with the salad.

Breakfast Toast.—Cut slices of bread in large squares and toast nicely. Take the egg out of the shell, keeping the yolk whole; beat the whites to a stiff froth and lay around the edge of the toast; drop the unbroken yolk into the ring thus made, salt, and set the slices of toast on a tin, making as many slices as are wanted, then set in a hot oven and bake until the egg is "set." Take out, put on small plates and pour melted butter over the toast.

Baked Eggs.—Put in a frying-pan and melt one large tablespoonful of butter; stir into this one teaspoonful of flour until smooth and frothy, taking care not to brown. Draw the pan back and add gradually, one cupful of cold milk, half a teaspoonful of salt, and a dash of pepper. Let the sauce come to a boil and pour at once into a deep earthen pie plate; into this drop eight (or less, if so many are not wanted) eggs. Set the dish in a moderate oven, and when the eggs are just "set" serve immediately on the same dish.

Potato Cake and Eggs.—For a breakfast or a supper dish, mash up cold boiled potatoes with a little warmed (not melted) butter, adding one raw egg to each pound of potatoes. Make this into cakes, flatten and put into a hot baking dish with a small quantity of hot drippings; brown the cakes on both sides, poach one egg for each cake, trim off ragged edges and lay it on the cake when done. Serve hot.

Eggs and Cheese.—One egg for each person. Break carefully into a hot skillet and allow them to "set," then grate some cheese (more or less, as you like), and cover the top of the egg; add salt and pepper to taste. Set in the oven until the cheese is melted, and serve hot.

French Toast.—Break and beat an egg well; then add a pinch of salt and one gill of milk. Dip in this some nice slices of bread; have the frying-pan ready with some hot drippings, and fry the bread a light brown, and serve.

Cup Omelet.—An odd dish that will be found very appetizing for breakfast is a cup omelet. Butter six custard cups and fill lightly with soft bread-crumbs and any nice cold meat, chopped fine, with plenty of savory seasonings, such as the family like. Beat three eggs; add one cupful milk, pour gradually into the cups, using more milk if required; set the cups in a pan of water and bake (or steam) until firm in the center. Serve in the cups, or turn out on a platter. These savory custards are delicious made entirely out of bread crumbs and seasoning, omitting the meat.

Scientific sanitary investigation has proved that to get rid of flies and mosquitoes the breeding places of these insects must be destroyed. Flies breed in stable manure piles, barnyards, and wherever there are masses of filth. Mosquitoes breed in marshes and swamps, old rain barrels, eave troughs, and wherever there is stagnant water impregnated with decaying organic matter.

If a cake cracks open when baking, it is either because the oven is too hot, and cooks the outside before the inside is heated, or the cake was made too stiff.

When James Ferguson, the astronomer, was a boy tending sheep, he taught himself the position of the stars by means of a string of beads.



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The Homing.

O ne'er will fade from my mind away
The scene of home as it looked one
day,
When I turned to wave a last adieu
To my dear ones there whose hearts
beat true.

My heart turns back to that childhood's
home,
For I have wandered far and lone;
And home and friends apart they stand
As a refuge calm, in a weary land.

There the violet sleeps by the meadow
brook,
And roses bloom in each sunny nook;
There the mocking-birds from the tree-
tops call
And a strange, sweet peace seems over
all.

What a hallowed spot is that old-time
home,
And it matters not how far I roam,
My heart still yearns for a homing call.
How gladly then would I leave it all—

The city's wealth and gaudy show,
Its hollow shams, as now I know,
And back would I go with gladsome joy
To lay my head where I slept a boy.
—A. J. Wilson.

Fleetfoot; the Autobiography of a Pony. MARIAN SEWELL.

CHAPTER XVIII.—BONNY PRINCE.

"I am going to call him Fleetfoot, for he is the fastest trotting pony in the world," was the proud announcement of a curly-haired, brown-eyed little boy who stood with arms clasped around my head nearly two months after the day on which I was sold to the highest bidder.

The intervening space of time I spent uneventfully at a country-place many miles distant, where I had a pleasant stable and a small lot in which to exercise; and every day an old man, who seemed to be troubled with rheumatism, came slowly out and provided my customary meals, and painfully pumped a troughful of clear, cold water in one corner of a lot.

As time continued to drag on and I still remained at the farmhouse, the idea grew upon me that I was to live here always and the slow old man must surely be the "Howard" for whom I was purchased.

But one morning everything was explained by the appearance of Mr. French, who drove up behind a wiry team of black horses and saluted the old man as "Uncle Josh," and asked him if he was tired of his charge. The aged countryman answered politely that there had been nothing but pleasure in his attendance on me, and jocularly added that he was just thinking of "risking a canter." In the course of conversation, Mr. French explained that as he had no suitable stable at home he thought best to leave me where I would be well housed during the cold weather, and completed his remarks by filling the protesting hand of the old man with bright pieces of silver.

It is needless to describe with what joy my advent was hailed by the real Howard, who was now exhibiting me to one of his youthful friends.

"I know my papa would have bought this little pony if he had been at the sale. How much will you take for him, Howard?" excitedly asked the small lad, whose name I incidentally learned was Lee Elliot.

"I won't sell him," declared Howard. "I've wanted a pony all my life, and now I'm going to keep this one. Oh, ain't he a beauty? And my new master went into ecstasies of delight."

Lee Elliot could do not less than agree with every word, and I was pleased to think I had made so good an impression on such a short acquaintance.

Pretty soon the visitor exclaimed: "Say, Howard, I have a notion to go home and ask the folks if I may not stay another hour, and I'll bring over my saddle and we can ride, and if your saddle doesn't get here by to-morrow, you can keep mine until it does."

Howard expressed himself as satisfied with this generous offer, and when Lee departed on his errand, I was led to the front of a splendid-looking house, nearly the whole side of which was glass; and from where I stood I could see through its transparency a great array of blooming flowers of all colors.

Howard ran up the short flight of stone steps, and opening a wide glass door spoke to some one inside; then he immediately returned to me, and through the open door came two tall ladies who seemed to be amused at my young master's happiness.

"Mama and Aunt Lucy," he broke

out, as he led me closer to the glistening steps, "I want you both to have a ride. I've tried my pony and he goes so fast that I've named him Fleetfoot."

"You are very kind, my dear boy," returned the elder of the two ladies, "but I'll allow Aunt Lucy the privilege of riding first. I'm a little afraid Fleetfoot might be too fleet for me."

In the meantime, Aunt Lucy was engaged in a tour of inspection. All at once she remarked impressively,

"Howard, this pony is getting prettier every minute."

"I know it," returned the little fellow innocently, failing to notice the mischievous sparkle in Aunt Lucy's eyes and the peculiar twitching of her lips. If I could have spoken then, I would have returned the compliment in all sincerity to the young lady whom I considered very pretty indeed with her bright face and silken golden hair. I could not help thinking that Marcella would resemble her a great deal when she grew up. My poor Marcella! I wondered if she was very lonely without me.

Assisted by Howard, Aunt Lucy mounted me, and I walked down the ornamental walk, but when I reached the road I put forth my best speed. Aunt Lucy was a good rider and never for a moment displayed any nervousness. When I brought her back, both she and Howard tried to persuade his mama to take a ride also, but she smilingly declined, and to escape further entreaty reminded Howard that he had not as yet introduced me to Bonny Prince.

"Better put the ordeal off as long as possible," advised Aunt Lucy. "Bonny Prince will be dreadfully jealous."

"No, siree! Bonny Prince won't kick. He's a thoroughbred," and with this comforting assurance Howard, with his arm through the loop in my bridle rein, and his hands in his pockets, proudly led me in the direction of the large orchard, where the first signs of spring were beginning to appear.

"Another mule!" thought I, forlornly. "People deem it smart to put fine names on those disagreeable, ill-tempered creatures. Bonny Prince, indeed!" The memory of Mr. Floyd's Maud still rankled in my mind, and the word "kick" would as far as I was concerned always be associated with mules. So, fully convinced that a hateful acquaintance would soon be forced upon me, I sullenly nipped the infant grass, while Howard bounded off in high glee to "bring him."

Imagine my surprise when in a few moments Master French returned, closely followed by a beautiful Collie dog. His glossy coat was of a rich brown color, and the white about his neck and front reminded one of newly-fallen snow. The rather small, pointed head was perfection itself, but the most remarkable point of his beauty was the pair of great brown, intelligent eyes, which just now looked sorely troubled as he backed off from

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The Little Ones

A Messenger.

Little Jack by the seaside stands,
Watching the setting sun.
He runs to the beach at eventide,
For his day of play is done.

His father has gone to the China seas,
For a cruise of a year or more;
And little Jack is left behind,
On the edge of Long Island shore.

He kisses his hand as the sun sinks
down,
And murmurs a message low:
"When you shine on father to-morrow
morn,
Just tell him Jack said 'Hello.'"

"Supper is ready," the black nurse calls,
Jack answers, "I can't come, Dinah;
The sun has a message to give to dad—
I'll wait till he gets to China."
—The August St. Nicholas.

Virginia's Ducks.—A True Story.

ANNA DEMING GRAY.

Virginia rested her round little chin
in her hands and her plump elbows on
her knees, and looked lovingly at the
soft balls of down at her feet.

All summer the ducks had been her
especial delight, for they had been
given to her when they first came from
their shells, fluffy and soft and yellow.

They had become used, now, to eat-
ing from the pan while she held it, and
to being caught up and cuddled under
her fat, warm chin, right in the middle
of a meal, and they had learned to
take it quite as a matter of course.

They were growing so big that they
were not half as pretty, but Virginia
loved them just as dearly.

"Virginia, oh Virginia," called her
mother's voice from the front porch.
"Where are you, baby?"

"I see wif my duckies," said the little
girl, softly.

Presently mother came around the
house to the back porch, where the
baby sat contentedly, two ducks in her
arms, and three at her feet.

"Why didn't you answer, dear?"

"I did answer—I was answering two
times, just as e-e-asy—like that."

"But you should answer loudly; no-
body could hear that."

"The duckies heard," said Virginia.
"Cause I know. They tipped up their
heads this way—see?"

"You had better put the ducks down
now, dear, they want to go to bed,
and you come round on the front porch
with the family."

"Why, isn't my duckies some of the
family?" said Virginia in an injured
tone.

"Yes, but you spend most of the time
with the ducks, and I do believe you
would like to go to bed with them.
Come on, dear," and her mother went
back to the front porch.

A half hour passed, and then big sis-
ter came through the house to the back
steps hunting the little girl.

It was quite dark now, but there was
no baby there, and big sister could hear
the soft nestling sound of Mother
Duck's cradle song, so she knew she
was getting her babies to sleep in the
chicken-yard out by the barn.

"Well, that's the first time Virginia
ever went up to bed all by herself,"
thought big sister as she slipped softly
upstairs.

But the little bed was empty. She
looked in all the other rooms, but the
baby was not to be found. She was
not at any of the neighbors either, nor
in the basement nor the closets nor the
refrigerator nor the garret, nor any of
the other unlikely places they searched.

"Just as if a baby like that would
go up to the garret in the dark," said
grandfather indignantly.

By this time, half the people on the
square had joined in the search, and
mother felt sick with alarm when she
remembered all the stories of kidnapped
babies she had heard.

"Mother," said grandfather, "Do try
to think what you said, when you found
her sitting out here on the back steps
with the ducks."

"I said," answered mother thought-
fully, "for her to come on around front
with the family. And she said, 'Isn't
the ducks our family?'" Mother's
voice faltered a little in spite of her.

"What then?" asked grandfather.

"I said I believed she would like to
go to bed with the ducks, and then I
came away."

"There!" said grandfather, and he
was off to the chicken-yard without
another word, followed by father, the
lantern bobbing up and down as he
went. And sure enough in one corner
of the chicken-yard, her head on her
little white pillow, nestled close in her
arms as many of the downy ducks as
she could hold, and her thumb in her

mouth was Virginia sound asleep, and
by her side cuddled the old mother
duck.

She did not waken when father car-
ried her upstairs, nor even when he un-
dressed her. But as he laid her softly
on her little white bed, she murmured
drowsily—
"Sleped—wif—duckies."

Club Department

OFFICERS OF THE STATE FEDERATION OF WOMEN'S CLUBS.

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

Our Club Roll.

Women's Literary Club, Osborne, Osborne County (1902).
Women's Club, Logan, Phillips County (1902).
Domestic Science Club, Osage, Osage County (1888).
Ladies' Crescent Club, Truly, Rawlins County, (1902).
Ladies' Social Society No. 1, Minneapolis, Ottawa County (1888).
Chalisco Club, Highland Park, Shawnee County (1902).
Culius Club, Phillipsburg, Phillips County (1902).
Literateur Club, Ford, Ford County (1902).
Sabeau 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 (1905).
Fortnight Club, Grant Township, Reno County, (1902).
Progressive Society, Rosalia, Butler County (1902).
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).
Prenis Reading Club, Cawker City, Mitchell County (1902).
Cosmos Club, Russel, Kans.
The Sunflower Club, Perry, Jefferson County (1905).
Chaldean Club, Sterling, Rice County (1904).
Jewell Reading Club, Osage County.
The Mutual Helpers, Madison, Kans. (1905).
West Side Study Club, Delphos (1905).
Domestic Science Club, Berryton, Shawnee County (1904).
Mutual Improvement Club, Vermillion, Marshall County (1905).
(All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.)

Mrs. C. B. Hoffman.

The St. Paul Pioneer Press gave a picture of one of our Kansas women, Mrs. C. B. Hoffman, of Enterprise, who is chairman of the Kansas forestry committee and who spoke before the Biennial on the subject of forestry. In commenting, the Press says:

"Mrs. Catherine A. Hoffman, of Enterprise, Kans., is one of the women who have been working in the forestry committee, and one who is heart and soul in the movement. Mrs. Hoffman is a native of Virginia, but when she was very young, married and went to a small town in Kansas to grow up with the place. She is an enthusiastic club woman, and one of her hobbies is kindergartens, which she never fails to advocate when a chance offers. In her report of forestry work done in her State she says:

"Kansas club women are taking to outdoor work instead of embroidery or oil and water-color painting, which was once so fashionable. One paper before the State Federation, 'Leave the World More Beautiful Than You Find It,' created enthusiasm for outdoor art and sent far and wide the message of the altruistic spirit in civic life. Our State Agricultural College has furnished leaflets for distribution. Out of the enthusiasm for forestry work of the club women, several towns have organized civic leagues, composed of men and women whose determination it is to make a town beautiful from what is more often an inartistic mass of scrubby trees and unkempt lawns. One town has employed a man to care for the trees of the town the year round. He is paid by the city and it is said to be a most satisfactory arrangement."

The Work of Club Women.

Taken from a report, given by Mrs. Lillie Day Monroe, of Topeka, of the biennial convention of General Federation of Women's Clubs is the following, which tells of some of the things the organization may do to make the world better and happier:

"This, the eighth biennial, is the greatest and best, viewed from the standpoint either of numbers or achievements. And judging from the demands made upon us, and the various aims and purposes which we are asked to adopt, much greater things still are expected of us.

"John Quincy Adams, of New York, asked our assistance in saving Niagara Falls from destruction. Our Canadian club sisters, who, by the way, sent us a most charming representative, will help us in this. We were flattered when



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G. E. NYE, Godard Building, Topeka, Kans.

Canada told us how they were watching us to learn from our methods and from our experiences. Senator W. B. Heyburn told us about the pure-food campaign and how to keep on working for the bill.

"Mr. Enos A. Mills, of Denver, made a most convincing argument to show us why we should work for forest building and planting as well as forest preservation. We were asked to use our influence in saving the 'Big Trees' of California. Also we were requested to work for forest reserves in the Appalachian Mountains. When one thinks of the things that we have pledged ourselves to help along, it looks like a most stupendous burden that the women of the federation have undertaken. But they will be done, all of them, not in a day, perhaps not in one biennial interim of two years, but they will surely be accomplished, and we will have to our credit the forestry reserves and some legislation thereon. We will have pure-food and child-labor laws; we will have civil-service laws, and we will have everything we have pledged ourselves to if we work as faithfully as we can and with the means which the club woman has now at her command. And one of the greatest aids to her efficient work is the press, which believes in club women and their efficiency. We were never so well treated by the newspapers as we are treated to-day, and especially is that true of the St. Paul papers.

"One of the best resolutions passed by the federation was that put forward by the industrial committee. We are pledged to look into the environments of the working women and girls, especially of Chicago. This department worked upon the sympathies of the audience as nothing else could. They were simply moved to tears when the representatives of the Girls' Labor Union, of Chicago, recited the terrible, terrible trials which beset the paths of these women and girls who are driven to work that they and those dependent upon them may live. It was a plain, earnest plea to us to help them in their struggle against degradation. Had there been no other business done at this biennial than that of the industrial committee it would be yet more than worth while. If our federation can establish a bond of sympathy between the women of leisure and means and the proud, independent working girl who only asks protection while she earns her daily bread and takes care of those dependent upon her, we will have bulled better than we dared to dream. When Miss Josephine Casey, a union labor girl, attempted to speak, she was overcome for the moment with stage fright. She could not say one word. Mrs. Decker ran to her and throwing her arms around the white, trembling girl said, 'There now, it's all right. This great big audience just scares me to death every day, so it does!' In a few minutes she had regained her composure, and she and Miss Alice Nestes, of the Glove Makers' Union, put before the women a picture which they will never forget, of starvation wages, unsanitary environment, unhealthful work, abuse, and insult. Maybe you think that resolution didn't go through with a whirr."

Denver, Colorado Springs, Pueblo and Return, \$17.50. Santa Fe.

Tickets on sale daily, good returning as late as October 31, liberal stop-over privileges allowed. Fast Colorado Flyer from Topeka 10.35 p. m., arrives Colorado early next morning. Rock ballast track and Harvey eating houses. T. L. KING, C. P. & T. A., Topeka, Kans.

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Kansas

HORTICULTURISTS AT LAWRENCE.

(Continued from page 650.)

and those that proved profitable. From the orchards the visitors were escorted to the house, where the wife and daughter assumed that after seeing the growing fruits, samples with cream and cake would be in order.

A drive around the "backbone" between the Kaw and the Wakarusa through the University grounds, through the pleasant residence streets of Lawrence, and out among nurseries and fruit-farms terminated at the Griesa place, where every ornamental tree and shrub suitable to the climate contributes to make a wilderness of beauty and semi-seclusion.

The banquet was soon called, and something like two hundred horticulturists, young and old, sat down to tables spread under the boughs of trees. The writer was informed that Mrs. Geo. W. Maffet was generalissimo of this part of the proceedings. Whoever managed the feast did it quietly and efficiently.

After the visiting, came the formal program. Now, such a program is good in more ways than one. If it had no other value, it would be good as affording an excuse for the elders whereby they justify themselves for taking a diversion from the strenuous labors of their occupations. Such diversion, such association with neighbors and friends, is well worth while even without any excuse, but many of us have not yet realized that certain measures of relaxation and pleasure strengthen the man and augment his efficiency, and that these are especially needful for the housekeeping side of life's copartnership.

Samuel Reynolds, secretary of the Douglas County Horticultural Society, who has lived and labored, has written and spoken encouragement and helpfulness in this county for more than half of his eighty-odd years, presented the "Earliest History of Kansas Horticulture." William Brown, whose work is mentioned above, read a careful paper on "Expert Tests of Newest Fruits." Mrs. Fannie Holsinger, of Rosedale, read a paper on the "Spirit of the Hive." Most readers of THE KANSAS FARMER have read some of Mrs. Holsinger's thoughts and will be pleased to know that this latest production, alive with the spirit of the enlightened mother, will be printed in these columns.

Some of the practical aspects of what a woman may do and does in horticulture were presented by Miss Celia Wall and Mrs. W. E. Koehling, of Lawrence, who spoke from their own experience on "Handling Berry-Pickers in the Field."

The proceedings were interspersed with short speeches from a large array of presidents and ex-presidents of county and State horticultural societies, and from other visitors, distinguished and otherwise.

Everything was done on time; there was no flutter and confusion; the carriages were in readiness and conveyed the visitors to their several trains just in time to avoid both anxiety and tedious waiting. There is certainly the genius of hospitality in the Douglas County Horticultural Society.

BOUNTY ON CROWS.

EDITOR KANSAS FARMER:—Is there a bounty on crows' scalps? They spread diseases of animals and are great pests. Jackson County. J. C. Bostwick.

By an act approved March 8, 1905, the Kansas Legislature provided for a bounty of five cents for each scalp of a crow taken in the county after an order shall have been passed by the Board of county commissioners making the act effective in their county.

Congress is doing business these days. Oklahoma and Indian Territory have been admitted to the Union as the State of Oklahoma. The Interstate Commerce measure is practically agreed upon and will be passed in a few days. Inspection for the packing-houses will be provided. It will be of a kind that will reassure consumers of meats, both at home and in foreign countries. There is hope that a general pure-food law will be enacted. President Roosevelt has acted as spokesman for the American people and with a backing that is almost universal has kept the attention of Congress riveted upon these measures so persistently that the usual tactics of postponement and delay availed not.

Word has been received from the publishers of Sunset Magazine that part of their subscription lists were lost in the recent San Francisco fire. Sub-

scribers residing in this State may receive the balance of the issues still due if they send a copy of their receipt, or part of the wrapper used in mailing a previous issue, or if they furnish any other evidence which the publishers can consistently accept. Sunset Magazine is temporarily located in the Ferry Building, San Francisco, California.

BLOCKS OF TWO.

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

Miscellany

For the Parcels Post.

EDITOR KANSAS FARMER:—In your issue of May 24, you ask a very pertinent and important question, namely: "Can we have the parcels post?" Mr. Edwin Taylor's address in answer to this conundrum is the best literature I have seen on the subject. The rural population all over this great country want the parcels post. The reason why they don't get it is well known. It is against the interests of the express companies and the mercantile classes generally, especially the country merchant, and they make themselves heard at Washington, because they are organized and onto their job, while the rural population is unorganized, easy-going, and do not make their wants known. If they would get a move on them and let their Congressmen know they must have the parcels post or he would not go back to Washington again, they would have it right away. It is not very long since the postal authorities at Washington gave orders that all rural mail delivery boxes should be numbered. A mighty protest went up from the express companies and mercantile classes at once, and the order was rescinded. Why? Because the mail-order houses could mail their catalogues addressed to the boxes by numbers and these would be distributed by the mail-carriers, and this would interfere with the business of the express companies and country merchants. They had their way of course, and the rural population never said "boo!" They are so used to being expectorated upon, they took it as a matter of course. The farmer is the under dog in every fight.

The country newspapers are also opposed to the parcels post. They draw their chief sustenance from the advertising patronage of the country merchant, and lick the hand that feeds them. They quickly publish any old rot that comes along with a thin argument against the "rules" to publish any reply to their stuff from a farmer. Without the patronage of the farmer's subscription, the country newspaper could not exist, because the country merchant would have no use for a paper without circulation. The farmer could force the newspaper to help him get what he wants if he would boycott him in case of refusal. The farmer can get anything reasonable that he wants if he will say it and mean it and go after it in the right way. Will he ever do it? I can't hear any echo.

Some city editors have written silly editorials on the subject of the Americanization of Canada, the basis of which is the great emigration to that country at present. Statistics show the immigration from Canada to the United States is much greater, but the emigrants from the United States to Canada will soon find out that the people of Canada come nearer getting what they want from their Government than we do from ours. For one thing, they have the parcels post, which we apparently can not get. They have the same rate of letter postage. On seeds, roots, cuttings, scions, and bedding plants they have a postal rate of 2 cents for the first 4 ounces, and 1 cent for every additional 4 ounces; limit 15 pounds. We have a rate of 1 cent for each 2 ounces; limit 4 pounds. On merchandise their rate is 1 cent for each

ounce or fraction over, and limit 15 pounds. Limit of size 30 inches in length by 12 inches in width or depth. What a comparison!

Now let all American farmers imagine sending a box of merchandise 2 1/2 feet in length and 1 foot in width or depth, or both, up to 15 pounds weight by mail, and having it delivered at their homes by a rural mail-carrier—and by a down-trodden subject of a monarchy.

Now we will close by singing: "Hail Columbia, happy land! Hail all ye farmers who have no sand!" And—

"Tis the star spangled banner, no more may it wave O'er the farmer galoot, who is naught but a slave!"

Morris County. D. P. NORTON.

Earthquakes Come in Groups.

The recent seismic disturbance on the Pacific Coast has had careful investigation by scientists, among them being Dr. F. Omori, professor of seismology of the Imperial University of Japan, and the greatest authority on earthquakes. The conclusions reached by this eminent expert, confirming the reports of geologists and engineers, are most reassuring. Doctor Omori makes the following interesting statement for "Progress:"

"Office of the Japanese Consul, San Francisco, June 9, 1906.

"Earthquakes have a tendency to come in groups, namely, they occur at different parts of a given region or zone in the course of a few years. Thus, between September 4, 1899, and January 31, 1906, there have been a series of seismic disturbances which affected the southwest coast of Alaska, Mexico, Central America, Columbia, and Ecuador, indicating that these earthquakes were of no local character, but that great stresses were going on along the Pacific Coast, so that the extension of the seismic disturbance to the coast of the United States would have been a most natural event to be expected. The great earthquake of April 18 last may probably be regarded as having completed the continuity of the manifestation of seismic activity along this part of the world.

Now an earthquake is caused by the existence of a certain weak point underground, which, reaching its limit, finally gives rise to a sudden disturbance which forms the source of wave motion propagated through the rocks and soil. An earthquake, such as that on April 18, may therefore be regarded as having removed a considerable instability existing in this part of the earth's crust; regions most strongly shaken becoming seismically the safest places for a considerable period to come. As a matter of fact, there is no instance in which great earthquakes originated successively at one and the same center. The small after-shocks which will for a few years be felt by the different portions of the Western coast are not of a nature to cause alarm. On the contrary, it is well that these small shocks should occur, as the disturbed earth's crust settles, by means of them, into its original condition of equilibrium. The intensity or destructive power of any seismic disturbance which may visit San Francisco after a considerable period of years is not likely to be violent enough to damage any well-constructed building. It will be an easy matter to make architectural and engineering structures earthquake proof.

"F. OMORI, D. Sc., Professor of Seismology, Tokyo Imperial University."

Crop Conditions June 1, 1906.

The Crop Reporting Board of the Bureau of Statistics of the Department of Agriculture finds, from the reports of the correspondents and agents of the Bureau, as follows:

Preliminary returns on the acreage of spring wheat sown indicate an area of about 17,989,000 acres, an increase of 38,000 acres, or 0.2 per cent, as compared with the estimate of the acreage sown last year.

The average condition of spring wheat on June 1 was 93, as compared with 94 at the corresponding date last year, 93 on June 1, 1904, and a ten-year average of 94.

The average condition of winter wheat on June 1 was 83, as compared with 91 on May 1, 1906, 86 on June 1, 1905, 78 on June 1, 1904, and a ten-year average of 81.

The total reported area in oats is about 27,678,000 acres, a decrease of 368,000 acres, or 1.3 per cent, as compared with the estimated area sown last year.

The average condition of oats on

June 1 was 89, against 93 on June 1, 1905, 89 at the corresponding date in 1904, and a ten-year average of 91.

The acreage reported as under barley is more than that estimated as sown last year by about 133,000 acres, or 2.7 per cent.

The average condition of barley is 93.5, against 94 on June 1, 1905, 90 on June 1, 1904, and a ten-year average of 90.

The average condition of rye is 90, against 94 on June 1, 1905, 86 on June 1, 1904, and 90 the mean of the corresponding averages of the last ten years.

Valuable Agricultural Program.

The program of the Farmers' National Congress to be held at Rock Island, Ill., beginning October 9, is extremely promising. The subject of agricultural education, especially nature studies in the rural schools, will receive prominent attention. Immigration in its relation to farm labor will be discussed by the National commissioner of immigration who is the best authority in the country on the subject. Business methods in farming will be the topic at one of the sessions. In view of the tendency of the times to centralization in all industrial enterprises, the problem of agriculture centralization is of supreme importance, and will be handled by gentlemen of marked ability to treat such a subject. The domestic side of farm life will not be omitted, and skilled experts will discuss different phases of that subject. The mutual relations of the farmer and the agricultural press will be considered by the president of the National agricultural press league. Marketing farm produce will be discussed by persons who have given much thought to the question. Water transportation as it affects farming, the forestry outlook of the country, agriculture in Alaska, railway rate legislation, and other important topics will also be discussed. In addition to the educational features of the Congress, there will be a number of pleasant social functions, excursions, etc. The railroads make reduced rates. J. M. Stahl, Chicago, Ill., president; Geo. M. Whitaker, Boston, Mass., secretary.

Cost of Cement Silo.

EDITOR KANSAS FARMER:—Last August THE KANSAS FARMER published a description of building a cement silo. I should be glad to see it reproduced if you can not supply me with a copy containing it. W. C. PALMER, Johnson County.

Doubtless many others as well as Mr. Palmer will be interested in the letter published in THE KANSAS FARMER last August. Here it is:

C. A. M., Onaga, Kans., writes: "I would like to know how Mr. Jones, of Ohio, makes his silos out of concrete to cost 50 cents per ton capacity. I refer to an article on 'Feeding Ensilage to Cattle' in a recent issue of THE KANSAS FARMER."

Complying with your request to answer the above inquiry, I would say that the statement was made, in the article above referred to, that if the silo was made of 500 tons or more capacity and material was reasonable, the cost should not exceed 50 cents per ton capacity.

The material most practicable to use is coarse, clean sand and coarse gravel, or gravel made up of mixture of coarse sand and pebbles of various sizes. In our section, such material costs 10 cents per yard at the pit. The cost of hauling will, of course, depend upon the distance of the farm from a gravel-pit. With the average farmer through our section of Ohio, the cost would probably run from 25 cents to 50 cents per yard delivered. Cement is now selling at about \$1.50 per barrel, and a barrel is sufficient for one cubic yard of gravel. Using ordinary farm labor, 50 cents per cubic yard is sufficient to cover the cost of labor in making the concrete and putting it in the wall, so that it is safe to count \$2.50 per cubic yard in the wall as the cost of gravel, cement, and labor. A silo 26 feet in diameter and 45 feet high will hold at least 600 tons, and a wall made 6 inches thick will contain nearly exactly 1 1/2 cubic yards per foot in height; and a silo 45 feet high would, therefore, contain 27 1/2 cubic yards, which, at a cost of \$2.50 per cubic yard for gravel, cement, and labor, would make a total of \$168.70, leaving out of \$300, which is 50 cents per ton of the capacity, the sum of \$131.30 to pay for wire, which would probably cost \$20, lumber for scaffolding and molds, the wooden doors to fit into the opening, and the coal-tar and labor necessary to apply it on the

inside. A careful, skillful manager would have a considerable sum left if the lumber used for scaffolding and molds is counted at its fair value after being used.

I realize that in some sections of the country there is difficulty in obtaining gravel or other proper material for making concrete. In such places it would, of course, not be practical to construct cement silos. If the silo is made still larger, the cost can be reduced considerably below 50 cents per ton capacity under conditions such as we have named above. We are expecting to build a couple of silos during the coming month, of concrete, and will make them of about 2,000-ton capacity, and do not expect the cost to be over 35 cents per ton of capacity.

HUMPHREY JONES.

Washington C. H. Ohio.

For valuable suggestions about concrete and its use, with illustrations, write to the Atlas Portland Cement Co., 30 Broad St., New York City, for free copy of booklet on "Concrete Construction About the Home and on the Farm."

Kansas Cement the Best in the World.

EDITOR KANSAS FARMER:—Secretary of War Taft announces that he will not use American Portland cements in the construction of the Panama Canal because he can buy cheaper abroad. When Kansas first began to manufacture Portland cement it was declared with some pride that Kansas would furnish the cement for the big canal. This, perhaps, was an exaggeration, but it was fair to assume that American cements would be used, and that Kansas would furnish her share. The Kansas article had been tested and found to be the best in the world. This was the verdict of scientists and contractors throughout the country, and, accordingly, when Uncle Sam decided to build the big ditch, Kansas filed on a share of the cement contract, and her manufacturers of cement have been looking forward to it, while now, Mr. Taft, who has the last word in the matter, decides to buy of foreign countries.

However, the Secretary's resolution will make no difference to the Kansas manufacturers. Their pride will be taken down a bit, perhaps, but that will be all. Financially they will lose nothing. Every barrel they can produce is contracted for a year ahead, and it only is by frequent enlargements of their plants and the construction of entirely new mills that they can keep pace with the increasing demand. For in America this is the cement age. Cement is taking the place of stone in railroad constructions and all other heavy building. In Western Kansas even the smaller cottages are constructed of it. It is used in sidewalks everywhere, and lately cement fences are coming. Not infrequently it spans wide rivers, bearing railroad and highway traffic safely, and in the mountains it forms dams which resist the most violent torrents.

So the refusal of the Government to buy American cement for the Isthmian Canal causes the Kansas manufacturers no loss of sleep or of business. The Iola manufactories (two plants) are turning out 9,000 barrels of cement daily, and two plants at Independence and one at Neodesha will be crowding that output in a short time. Besides these, preparations are making for a plant at Humboldt and for one at Chanute. The Chanute plant will start with a capacity of 3,000 barrels daily. Within a year or less, counting the two plants at Iola, one at Independence, and one at Neodesha now in operation and three more contemplated or under construction, Kansas will be producing something like 20,000 barrels of cement daily.

And all this has come from a beginning made by the Industrial Bureau of the Atchison, Topeka & Santa Fe Railway less than nine years ago. Before the Santa Fe made the discovery that Kansas contains in her soil the constituents for Portland cement, there had not been a barrel of it made west of the Mississippi River. But the big railroad company was after business. It had caused brick works and glass works, and monster zinc smelters to be established along its lines in the gas region of Kansas, and why not try cement? There were beds of shale and deposits of limestone, and why not mix the two properly and make Portland cement?

Such was the inception of the Portland cement industry of Kansas, which since has mounted into vast proportions. The shale was sure, but there were so many varieties or degrees of limestone, that it took time, patience, skill, and no little money to find the

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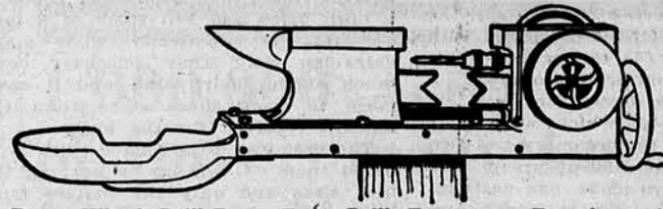


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right one. Finally the stone that formerly had been known as "Iola marble" proved to be exactly the lime-rock that was needed, and when science had mixed it with the shale, the product was the best Portland cement in the world! The next step was to obtain option on shale and limestone lands and to lease gas rights. This was done, which gave the company something to offer to capital in the succeeding negotiations for the establishment of a cement plant. Joint freight rates also were studied. All this took more time and more money, but finally it was done, and a company of Michigan capitalists induced to undertake the enterprise.

This was early in 1898. The enterprise, by the experiments and demonstrations of the Santa Fe, looked so "good" that East and West, Kansas included, subscribed to the capital stock. Success was in, right from the start, and the money rolled in so abundantly that June 15, 1900, the Iola Portland Cement Company began to turn out 1,500 barrels of cement daily. The product of this mill entered immediately into the world's consumption, and at once it took a front rank. Everywhere west of the Mississippi River there came a demand for "Kansas cement." Even the world's famous Belgium cement took second place. Of course the plant was enlarged, and enlarged again, and now there has been another increase of capacity, making its daily output about 6,000 barrels.

The remarkable success of the original Iola plant led to the formation, by the encouragement of the same railway company, of a second Iola company, known as the Kansas Portland Cement Company.

This was formed in October, 1902. In April, 1903, ground was broken for the plant, and in July, 1904, the mill began operations. Still looking for "cement rock" and shale in the gas region, the Santa Fe's industrial commissioner kept his scientific men in the field, and found near Independence the identical limestone and shale that had proved to be so valuable at Iola. Again land options and gas leases were obtained, and with the success at Iola it was easy to enlist capital. The result was the Western States Portland Cement Company, which began to make cement in November, 1905, and is now turning out about 3,000 barrels daily. Still another plant at Independence, on the line of the Atchison, Topeka & Santa Fe, located by the same methods as before, is a branch of the Kansas Portland Cement Company, whose head is George H. Nicholson, of Iola. Its capacity is 3,000 barrels daily.

The Neodesha plant is only in its be-

ginning, and is turning out about 1,500 barrels a day.

Following these will come the Humboldt and the Chanute enterprises which the Santa Fe commission now is working on, and after them others all over the Kansas gas region, so long as the demand for cement continues.

Of course, the Atchison, Topeka & Santa Fe Railway Company has by its share in these enterprises made new patrons and additional revenues for itself, but, more and better than that, it has added to the State's population and wealth and given employment to very many men. It is profitable employment, too.

It takes big money to establish and conduct a Portland cement plant. For instance, the Iola Portland Cement Company's plant is said to have cost two million dollars, and outside of that it has a working capital of one and one-half millions. The company employs 700 men, and the mill runs night and day. Its pay-roll is said to be \$60,000 a month. Its plant is one of the largest in the United States. The Iola people say the largest in the world, and probably it is. The other plants in the State are smaller, but they are coming, as they employ their proportionate share of labor and turn out their full share of cement. X. X. Iola, Kans.

SUMMER VACATIONS IN COLORADO.

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This latter rate is authorized on account of the Elks' Annual Meeting at Denver July 16 to 21. Tickets limited for return to August 20.

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Dairy Interests

Butter-Storage Experiments.

Some extensive experiments in the making and storage of butter have recently been concluded by the Dairy Division of the Bureau of Animal Industry, United States Department of Agriculture, in an effort to solve some of the difficulties encountered in the butter trade. A bulletin containing a report of the experiments has just been issued by the Department.

Last summer about 6,000 pounds of butter was made in Kansas and Iowa by C. E. Gray, a dairy expert of the Department of Agriculture, and placed in cold storage in Chicago, where it remained until this spring. This butter was examined and scored at intervals by Prof. G. L. McKay, the head of the dairy school of the Iowa-State College, and P. H. Kleffer, assistant dairy commissioner of Iowa. Some interesting things were revealed by these tests, and while some of the old ideas were sustained, others were practically reversed.

Some of the questions as to which these tests were expected to give results were (1) the effect of pasteurization, (2) the amount of salt to be used, (3) temperature of storage rooms, (4) the use of cans hermetically sealed for storing butter, (5) the keeping quality of good compared with poor butter, and (6) the action of air in contact with butter in storage.

The butter was made from five lots of cream, three of which were sour when received at the creamery and two sweet. From each lot of cream two lots of butter were made, one pasteurized and the other unpasteurized, and part of each lot of butter was lightly salted and part heavily salted. The butter was packed in tubs and cans, some of the cans being only partly filled, so as to test the effect of air. It was then stored at temperatures minus 10°, plus 10°, and plus 32° F., and at variable temperatures, part of each lot being stored at each temperature. The butter remained in storage about eight months.

The results showed that butter containing low percentages of salt kept better than butter of the same lot containing higher percentages of salt. Butter in full cans and tubs at the lower temperatures scored about the same. At the higher temperature there was a slight difference in favor of cans. Butter in full cans kept better than that in cans only partially full. On the whole, butter held at the lowest temperature kept best, both when in storage and after removal from storage. Butter made from cream received sweet kept well while stored at the two lower temperatures, and also after removal from storage, giving results wholly satisfactory. Butter made from cream received sour also kept well at the lower temperatures, but deteriorated rapidly after removal from storage, giving, on the whole, results which were very unsatisfactory. The conclusion is that light salting and low temperatures and the use of cream received at the creamery in a sweet condition give much the best results for storage butter.

Breeding vs. Buying Cows.

The question is frequently asked whether it is better to breed or to buy cows. This, of course, depends greatly upon circumstances, but experience has taught that the most successful dairy-

men, that send their cream to creameries or make butter, breed their own cows.

Good quality is the point that should be aimed at. This can be better obtained by breeding than by purchasing animals here and there as required. There are many reasons why it is more profitable for dairymen owning fair-sized farms to breed than to buy. In purchasing, even the best judges are frequently misled by appearance. As a rule, sellers do not part with their best cows, consequently there are more culls on the market than high-class animals. Buyers have, therefore, a great deal of picking and choosing to do, and good milkers nearly always bring their full value.

Be sure and keep a bull that has come from a long line of good milk-producing stock. The purer bred he is the better he will be, and the more likely will he be to transmit his good qualities to his offspring. The heifers from the best cows should be reared to take the place of animals that for various reasons are disposed of.

The system of breeding allows the dairyman to keep only the best cows while some one else gets the culls. If the butcher secures them, so much the better for the dairymen in general.

Unfortunately, farmers have not as yet been thoroughly educated to the advantage of feeding animals that produce payable results. Thus, many very inferior cows are being milked. No keen business man would buy goods at a high price and sell them at a loss, yet this is practically what many dairymen do. They purchase cows much above their value, and it costs more to keep these cows than the amount received for the milk.

The best way to get good cows is to breed them. Grade up by keeping the best sires and only the heifers from the most profitable cows. In this way, each generation will be better than the last. Selection and rejection have a great deal to do with the success of breeding.

The dairy department of the Kansas State Agricultural College is willing to do all it can to assist each dairyman in improving his herd by selection. Write the department for record sheets and instructions. OSCAR ERF, Kansas State Agricultural College, Manhattan, Kans.

Rearing Skim-Milk Calves.

Many farmers are raising their calves successfully on skim-milk, but still there are many who believe that it is impossible to raise a good calf except by allowing it to suck the dam. The experience they have had by growing unhealthy, undersized calves that have been reared on skim-milk has allowed them to conclude that this is the necessary result of feeding skim-milk. Such calves are very often the unfortunate victims of their owners' ignorance or carelessness. The skim-milk calf properly handled is but little, if any, inferior in size, thrift, or value to what he would have been had he been allowed to suck the dam.

The poor results that have so often followed the feeding of skim-milk have been, in most cases due to faulty methods and not so much to the fact that the cream had been removed. Cream has but little value in the normal development of the calf. In truth, the butter-fat or cream of the milk is by no means its most valuable part. The fat does not go to form growth in a young animal, but to keep up the heat of the body and to supply fat for body tissue. It is probably true that the presence of a limited amount of fat in milk tends to make the protein slightly more digestible, but in this, as well as in its nutritive functions, the value of the butter-fat may be fairly well replaced with cheaper substitutes after the calf has reached the age of 2 or 3 weeks.

Many dairymen differ as to the best time to begin hand-feeding. Some prefer to take the calf away from its mother without allowing it to suck at all. Some let it suck once or twice, and others allow it to run with the cow three or four days or until the fever of the udder has disappeared and the milk is fit for use in the dairy.

A calf should be allowed to suck the dam at least one day, or for two or three milkings. It must be borne in mind that the first milk from the mother is required by the calf, for it has the property of acting as a mild laxative and has a stimulating effect upon the digestive organs. This first milk, commonly known as colostrum, is also very digestible. From our results, we find that it makes no difference whether or not the calf sucks the entire period, except that the earlier

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It is taken from the cow the easier it will be to teach it to drink. If the cow's udder is not in an abnormal condition when the calf is dropped, it will generally be more satisfactory to take it away early, or after one day. When the udder is caked, it is better to leave the calf with the cow until the condition is removed. It is well to let the calf go hungry for at least twelve hours before attempting to give him his first lesson at the pail. In nature the calf gets its food often and in small quantities. His stomach is not large enough to take large quantities at a time without causing indigestion, which is usually followed by the scours. For two weeks it is, therefore, better to feed three times a day. After that it may be fed twice a day. For the first two weeks an allowance of ten to twelve pounds a day is quite enough. The daily allowance should gradually be increased until the calf is 5 months old, when 18 to 20 pounds should be given.

Overfeeding is undoubtedly one of the most common causes of inferior calves. It is a mistake to think that because the cream has been removed the calf needs more of the skim-milk, or that because the calf is not doing well it is not getting enough milk. For the first eight or ten days the calf should be fed on whole new milk, after which the feed should be changed to skim-milk. The change should come about very slowly, by decreasing the new milk and increasing the skim-milk by degrees from day to day. The digestive organs of the young calf are very sensitive, and any drastic change in the diet is apt to cause trouble. Milk should always be fed warm at about 95° and sweet.

Next to overfeeding there is probably nothing that causes more trouble than the unsanitary condition of the pails or troughs in which the calves are fed. Cleanliness is an important requisite. The pails and all other vessels in which the milk is kept must be kept clean and sweet. Unless this is done, ferments are developed that are almost sure to cause trouble with the calves. When calves begin to purge, one of the first remedial measures is to scour the pail.

One of the best methods of feeding calves, and one that has given almost universal satisfaction is as follows: After the calf is from 10 days to 2 weeks old, place a handful of bran in the pail. Scald this bran with boiling water. Mix it thoroughly and pour the milk over this. The object of this is first to destroy the ferments and kill the germs that are lodged in the pail, and second to warm the milk, thus making it more digestible. The bran increases the nutritive value of the ration. However, practically the same results can be obtained by scalding the pails with boiling water before feeding, and feed the calves with pure, wholesome milk.

Any contrivance which can not be thoroughly cleaned is not fit to feed calves with. If a patent feeder is used, the tubes should be sterilized every day. This becomes quite impractical, and, therefore, it is preferable to use a common metal pail. Troughs should not be used for feeding calves. While it is easy to keep them clean if they are metal, if two or more calves are in the paddock, one calf invariably gets more than its share.

The introduction of the hand-separator has done much to solve the problem of rearing calves. It is true that the separator creamery has to a large extent brought separated milk into disrepute among those who wish to rear calves on skim-milk. After the milk has been hauled several miles to the factory, where it is heated to a separator temperature, then hauled home and probably not fed until evening, it becomes a very unsanitary food, but warm, sweet skim-milk, separated within a few minutes after being drawn from the cow, is in the best possible condition for the calf.

As a supplement to the skim-milk, the calf should be taught to eat a little grain. He can be started by the time he is 4 or 5 weeks old by rubbing a little dry meal over the end of his nose. There is no better meal for this purpose than chopped oats or oatmeal which has the hulls removed. Oatmeal is sometimes recommended, but oatmeal gives better results. Oatmeal is too nitrogenous. Skim-milk is already more nitrogenous than new milk, and to add such a substance as oatmeal to a ration would make it abnormally rich in protein. Ground flaxseed or a little flaxseed jelly will give good results, much better than the oatmeal, where the oil has been removed. Hence, it is poor practice to

feed rich, nitrogenous food, where, as in Kansas, such feeds as oats and corn can be grown. Do not give the calf more grain than it will lick up clean in a short time. It is not well to keep a supply of milk constantly before him.

Calves will do better if kept in clean, airy box-stalls during the summer than if allowed to run out and fight flies in the hot sun. They should be given a drink of water at noon and should have access to salt at will. They should also have some grass or green oats cut and given them every day. They should not be given very much at a time, not more than they will eat up clean before the next time of feeding.

Every effort should be made to keep the calves steadily gaining, and it should never be forgotten that a given weight of gain can be produced on a calf at a little less than half the cost of the same gain on the same animal when it is a 3-year-old.

OSCAR ERF,
Kansas State Agricultural College,
Manhattan, Kans.

The Milking-Machine a Success.

During a recent trip to the East, Governor Warner, of Michigan, purchased a milking-machine outfit. He had visited several herds where machines were in successful operation. His impressions and views are stated in the Charlotte (Mich.) Republican:

"One herd which I visited had been milked two years with no ill effect whatever upon the cows. I became convinced that the invention was practical, and ordered an outfit for my dairy-farm in Huron County. We have it installed now in one barn, and when I was up there last week we had it in practical operation. I am very much pleased with it. Some people have an idea that it takes a great deal of patience to get cows accustomed to the machine, but this is not so. There is no difficulty whatever. The cows become accustomed to the machine very readily. They really seem to enjoy being milked with the machine more than when milked by hand. I believe the question of milking cows by machinery is solved.

Each machine costs \$75, and there is some expense in plumbing the barn before it can be used; besides suitable power must be furnished. On my own farm I am convinced that this expense will be saved in one season. We employ eight men and formerly they had to start early in the afternoon to do the milking. When we get our entire plant installed, three men will do the milking and the other five men will have nothing to do with the cows whatever. They can tend to the ordinary farmwork and remain in the field a full day. I estimate that one season alone will pay the entire expense of the machinery, which will cost me in the neighborhood of \$700 to install. Of course, with a smaller herd, the expense would not be so great, because one would not need as many machines. Each machine milks two cows at a time. I have purchased six machines, so that when all are installed we can milk twelve cows at a time. A man with a smaller herd would not need over two or three machines.

"I have great faith in this invention and believe that it will be of great good to the dairy industry."

Something New Under the Sun.

A business proposition that is refreshing in its newness and earnestness is that appearing on page 672 of this issue of THE KANSAS FARMER. An offer to pay the railroad fare of any man coming to Kansas City and buying a hay-press, no difference what pattern, is what one of Kansas City's enterprising manufacturing institutions makes to the public. When it is remembered that about 25 styles of presses are handled in Kansas City, and that a single company takes the chances on making the sale after a party has had an opportunity to inspect all the various patterns, and that it further agrees to pay the railroad fare of any purchaser no matter what press he selects, it will be seen that there is a faith in the merits of its press equal to the belief of a mother in the goodness of her son. In race-track parlance, this concern picks its horse to win, and backs it against the entire field. If it makes the sale, it can afford to stand the refund of railroad fare, as the selling expense would be less than if a man were sent to the country to see the intending purchaser, but the unusual part of the offer is the agreement to make the refund even though some of its competitors succeed in selling one of the other presses. This unusual proposition is made by the Western Steel & Wire Company, whose plant is located in Kansas City, Kans., which is only about 15 minutes ride by street-car from the Union Depot in Kansas City, Mo. The name of the press made by this company is the New Century, and it is fully warranted as to wearing qualities and the grade and quantity of its work.

Destroy the Gophers

In Your Alfalfa Fields by Using
Saunders' Gopher Exterminator

It is a machine which forces a deadly gas through their runways and is warranted to kill gophers within 100 feet of operation. With it a man can clear from five to six acres of gopher-infested land in a day at a cost of twenty cents per acre. The poison we use can be gotten at any drug store. Satisfaction guaranteed or money refunded. Complete outfit for \$5.

Flint Saunders, Lincoln, Kansas
Mention The Kansas Farmer.

WALNUT GROVE FARM

...FOR SALE...

Upon the advice of several specialists I am going to New Mexico for my health. On this account I must dispose of all my Kansas property, including the famous Walnut Grove farm, the most complete and profitable stock farm in Kansas. This includes 130 acres of the best land in Kansas, two miles from Emporia. Over 200 good O. I. C. hogs. All our Barred Plymouth Rocks, 36 Collies, 44 head of cows, 8 head of horses, the best farm house in the State. Also one small farm house, 2 large barns, 2 large cattle-sheds, one 300-foot hen house, one 250-foot broiler house, 20 brooder houses, capacity of plant, 4,000. The best hog house in the West, double-deck cement floors; many small hog houses. This is not an experiment, but a successful stock farm. Price, \$20,000 cash.

H. D. NUTTING, Emporia, Kans.

1,000,000 Acres of Government Land Free to Homesteaders

One of the few remaining opportunities to secure a free homestead of really good land comes this month when the Crow Indian Reservation in Montana will be thrown open for settlement.

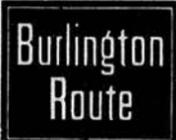
Every person entitled to take up Government lands and desiring to secure one of these homesteads must appear in person on any day from

June 14 to 28, 1906, inclusive,
at Sheridan, Wyoming,
Billings, Montana,
or Miles City, Montana.

(The ONLY EXCEPTION to this requirement is that a former soldier or sailor in the Army or Navy of the United States having had at least 90 days war service may send an agent, with power of attorney, to represent him. Such an agent may represent only one soldier or sailor.)

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Plan your Colorado or California trip so as to include a trip between Denver and Salt Lake City via the MIDLAND—the route through the Republic's play ground. ☞

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PLYMOUTH ROCKS

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

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

BARRED PLYMOUTH ROCKS—Bradley strain prize winners; won 1st on okl. last three years at Harvey county poultry show. Eggs from pen \$2. yard \$1 per 15. R. Harmston, R. R. 5, Newton, Kan.

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

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

Special Reduced Summer Prices

on my Superior Strain Barred Plymouth Rocks; 15 eggs, 60 cents; 30 eggs, \$1.

E. J. EVANS, Fort Scott, Kansas

White Plymouth Rocks EXCLUSIVELY.

Good for Eggs, Good to Eat and Good to look at W. P. Rocks hold the record for egg-laying over every other variety of fowls; eight pullets averaging 289 eggs each in one year. I have bred them exclusively for twelve years and have them scoring 94 to 96%, and as good as can be found anywhere. Eggs only \$2 per 15; \$5 per 45, and I prepay expressage to any express office in the United States. Yards at residence, adjoining Washburn College. Address THOMAS OWEN, Sta. B, Topeka, Kans.

WYANDOTTES

FOR SALE—White Wyandottes, one pen high scoring; also eggs \$1 per 15. A. R. Gage, Minneapolis, Kans.

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

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

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

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

White Wyandottes Exclusively

Pen 1 headed by 1st prize cockerel. Topeka; hens scoring 93%; 2nd prize, \$2 for 15. Pen 2, cockerel scoring 93%; hens, \$2 to \$4; eggs, \$1 for 15. All stock for sale after June 1. F. H. Sutton, Minneapolis, Kans.

LANGSHANS

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

BUFF LANGSHANS \$4.00 per 15 eggs.



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

RHODE ISLAND REDS

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

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

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

MAMMOTH BRONZE TURKEYS

Eggs for Hatching

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

Eggs For Hatching

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

BRAHMAS

LIGHT BRAHMAS

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

Light Brahma Chickens

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

SILVER SPANGLED HAMBURGS.

MY SILVER SPANGLED HAMBURGS led their class at the last three State Shows; also have Worlds Fair Premium. Eggs \$1.25 to \$2.00. Mrs. Fay Finkle, Galva, Kans.

INDIAN RUNNER DUCKS.

Indian Runner Ducks and White Wyandottes Eggs

Fresh, fertile and from high-class stock. Price reduced to \$1 per sitting. E. D. Arnold, Mankato, Minn.

The Poultry Yard

Conducted by Thomas Owen.

Chiggers on Young Chickens.

EDITOR KANSAS FARMER:—I would like to know through your most valuable paper what is the matter with my chickens, also remedy for same.

We have a flock of 350 chicks from 4 weeks to 8 weeks old that have some foot disease. I will tell you how we care for them.

We have them yarded in small yards with no grass in them. They roost in small hen-houses and coops with board floors. The floors are cleaned daily and gunny sacks put on them at night. The chicks are fed ground Kafir-corn, cheese curd, millet-seed, and alfalfa for green feed. Plenty of fresh water in clean wooden troughs in a shady place, also plenty of oyster-shell grit is given them.

Their feet first turn a pink color and have some fever in them; then they blister between the toes; then they dry and get stiff and their toes turn up. They eat heartily and drink and appear to do well. Their bowels are all right. Finally their eyes turn pink, but they do not entirely lose their sight. We have not lost any, but the old ones do not take it, or have not so far. Some of the old ones run with the young ones. They are incubator chicks and were raised in brooder until they were 3 weeks old.

We dipped their feet in turpentine, coal-oil, and carbolic acid, and it helps to some extent. A. C. JONES.

Answer.—The disease affecting your chicks is a peculiar and unusual one, but we have heard of a similar case and the cause of it was attributed to chiggers. It was said that the chiggers would attack the young chicks' feet and legs and eventually the body till they died. We think your treatment of dipping them into a solution of carbolic acid as good as anything you could do. A change in the yards might also be of benefit to them.

Poultry in England.

The celebrated poultry artist, Mr. F. L. Sewell, having lately attended the poultry shows of England is writing up his experiences in the Reliable Poultry Journal, from which we glean some very interesting facts.

Some people in this country think the poultry industry a small business, and when we ask them for the use of the auditorium in which to exhibit our fowls, make a big howl, and think it's a great desecration of their building to allow it to be used for exhibiting chickens. But in England they use the Crystal Palace, the finest public building in the world, in which to exhibit their fowls. In fact, last fall they held two poultry shows in London the same week, one in the Crystal Palace and the other in the Alexandria Palace, in which there were 14,657 entries of poultry, pigeons, and rabbits. Mr. Sewell informs us that the values placed upon a single specimen of fowls in the Crystal Palace show ranged up to five hundred pounds sterling, or nearly \$2,500 of our money. Talk about not taking a farm for a fowl. Here are chickens with one of which you could buy several Western farms.

It will surprise friends of poultry-culture in the United States to be informed that no less than fifty-two judges were employed at the Crystal Palace show alone; also that the exhibitors are not allowed on the floor of the hall while the judging is going on, which fact is described by Mr. Sewell in the following paragraphs:

"The judging was expeditiously accomplished on Tuesday morning by fifty-two judges, and while the judging was in progress scores of anxious exhibitors leaned over the bars, straining their eyes and their imaginations in an endeavor to follow the judges in their work, upon whose decision so much of the reputation of their year's product and future prospects for sales depended. Three hundred and eighty-four specials, trophies, cups, and medals, ranging in value from one guinea up to the scale, including five, ten, twenty, twenty-five, fifty, and even to the handsome sum of eighty guineas (over \$400), were awarded. These besides the regular prizes of thirty shillings (\$7.50) for first, fifteen shillings (\$3.75) for second, and ten shillings (\$2.50) for third, make it a tempting place for exhibitors to show. There is some immediate reality in it when a fancier can return with such substantial awards, besides the fame of his birds,

which gives gilt edge to his advertising.

"With few exceptions, while the judges were making their decisions and awarding the prizes, only the attendants were allowed in the aisles among the exhibits. No others are allowed beyond the bars until the cards are up, ribbons not being used at British poultry shows. Birds are judged by comparison in England, and such judges as are engaged at the Palace are painstaking handlers of all specimens that show special merit. Time is not lost, of course, on those few birds that show glaring external blemishes and disqualifications.

"At previous English shows, we noticed that quite a number of birds changed hands at big prices to enthusiasts, in anticipation of making sure of success at the Crystal Palace show, for the winning of first honors here is the greatest advertisement a British fancier, who desires to sell to amateurs in the Colonies or States, can give publicity.

"Some breeders reserve special fowls for this show and give great care and attention to their training and preparation, in order to present them in the most perfect condition. By expert handling, the specimens are encouraged to show off to the best advantage.

"We have been at fanciers' yards where house room to the extent of what would be considered sufficient for whole breeding pens at any, other than the training and fitting season was allowed to single birds that were to be shown in such important competitions. As can be imagined, at an exhibition of such magnitude, and where values range up to where \$2,500 is placed upon single specimens, the most systematic checking is practiced all along the line by railway, express, and show operators."

The excellent paper on "How to Make Money with Turkeys," which appeared in THE KANSAS FARMER of May 31, should have been credited to the Inland Poultry Journal, of Indianapolis, Ind., in which paper it first appeared.

Poultry Pointers.

N. J. SHEPHERD, ELDON, MO.

In breeding for color, always select birds a shade darker than the color you want to breed, as fowls are inclined to breed lighter and you can never get depth of color unless you breed from birds very deep in color themselves.

If desired to pack eggs for keeping, take the cocks away from the hens. Unfertilized eggs will keep much longer than fertile ones. After the hatching season is over, the cocks only add to the expense of keeping the fowls, and the hens will lay fully as well without them.

It is free feeding and good food that makes the paying difference between the plump, well-feathered chickens that command the best prices, and the lean, pin-feathery specimens that it is hard to dispose of at any price, if sold at all.

If desired to pack eggs for long keeping, gather them every day and pack none that are not absolutely fresh. Salt is the best packing material, and the eggs should be laid down the day they are gathered. Keep the egg-box in a dry, cool place where the salt will not gather dampness.

While there is no good reason why the farmer should not have as good poultry as the fancier, and of all kinds, at the same time it is very questionable if it is good policy to have more than one variety. Usually, the farmer expects to give the poultry the range of the farm. In doing this it costs much less to keep them, as a considerable part of what they pick up would otherwise be wasted, and in doing this they will also destroy a large number of insect pests that if let alone would seriously injure growing crops. If more than one breed is kept, they would have to be kept separate, and in doing this usually one or the other would be confined at least a portion of the time. And there is nothing to be gained in keeping different varieties while there is a risk of their getting together.

Burnt bones pounded up have not by any means the same effect as bone-meal or dust, being reduced to mere phosphate of lime with the same amount of animal charcoal; neither have crushed raw bones, although they are believed by some to produce similar results.

In nearly all cases, it is best to feed fowls whole grain at night. If given soft food just before going to roost, it is digested early in the night and they are hungry before morning. All things considered, whole grain is hard to feed as a night ration for poultry.

LEGHORNS

ROSE COMB BROWN LEGHORN EGGS, 15 for \$1, 50 for \$2.50, 100 for \$4. Mrs. John Holstey, Bendena, Kans.

BUFF LEGHORNS AND BUFF ORPINGTONS. Catalogue free. W. H. Maxwell, 1240 Quincy St., Topeka, Kans.

STANDARD-BRED SINGLE-COMB BUFF LEGHORNS—Headed by first prize pen Chicago show 1903 and took six first prizes and first pen at Newton 1904. Eggs \$2 for 15. S. Perkins, 301 East First street, Newton, Kansas.

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

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

FOR SALE—Exhibition S. C. Black Minorca cockerels, \$2. I guarantee them. Address George Kern, 317 Osage street, Leavenworth, Kans.

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

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

Johnnie Chase, Glasco, Kas.

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

Notice To those who have bought eggs of me this season and have failed to get satisfactory hatch, please advise me and I will make it right.

W. S. Young
Breeder of R. C. and S. C. White Leghorns and White Wyandottes.
McPherson, Kansas

BUFF COCHINS

BUFF COCHIN EGGS—From high scoring prize-winning stock, \$1.25 per 15; \$5 per 100. Stock for sale. A. R. Gage, Minneapolis, Kans.

GEESE

BROWN CHINA GEESE, Indian Runner Ducks, also Barred Rock cockerels. Prize winners at State Poultry Show. O. C. Sechrist, Meriden, Kansas.

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Clay Center, Neb.

SAVE YOUR CHICKS.

Use the Itumar Mite and Lice Killer, a mite and lice destroyer. Guaranteed to kill mites and lice if properly used. If not satisfied return bottle and label and money will be refunded.

CHAS. E. MOHR,
Glendale Park, Hutchinson, Kans.

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BEES & PIGEONS

Subscription, 25 Cents a Year.

"OUT THERE IN KANSAS"

All about the chicken industry in Kansas, the bees and pigeons. Full of information illustrated and made plain for the people. Practical, by and for practical people. The paper that reaches the chicken folks. If you are interested in poultry, bees or pigeons, THE HEN will interest you. Address THE HELPFUL HEN, Topeka, Kansas.

Farmer's Account Book and Ledger

Saves time and labor—a few minutes each day will keep it; systematizes farm accounts in every department; shows in the simplest manner how to increase profits and decrease losses; endorsed by farmers everywhere. We stand ready to refund the purchase price on every book not found satisfactory. We deliver this book postpaid, including the KANSAS FARMER one year, both for only \$2.50. Address, THE KANSAS FARMER CO., Topeka, Kans.

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FOR FARMERS FIVE YEAR ACCOUNT-BOOKS

And Five Year Diaries. Address
Chas. H. Allen Co., Rochester, N. Y.

Horticulture

Some Desirable Trees, Not Native.

A. T. DANIELS, BEFORE THE SHAWNEE COUNTY HORTICULTURAL SOCIETY.

In writing about trees, it is difficult to refrain from attempting to write about the beauty and grandeur of trees in general. We read of their cooling shade, their luxuriant foliage, their majestic strength, their lovely flowers, or their luscious fruits, and the grace and symmetry and great variety of their forms, until we wonder if the people really appreciate the trees as they deserve to be appreciated.

The members of this society are all familiar with the appearance and characteristics of our native trees, and can recognize them at sight anywhere in the woods or on the street, but there are people who have not had the opportunity to become so well acquainted with the trees, and who hardly can tell the difference between a cottonwood and a box-elder.

I presume that a part of the work of this society is educational; that the discussions and papers which are given here each month are such as may help each other and our neighbors to a general knowledge of not only the best fruits and vegetables and how to grow them, but also to have a better acquaintance with the flowers, shrubs, and trees.

In the beautiful building of the American Museum of Natural History, in New York City, a spacious room has been set apart for the display of specimens of wood of every tree native to America, with illustrations of leaf, flower, and fruit, and near New York, in Bronx Park, a collection of trees has been planted that shall represent every species of trees that can be grown in that locality. In our own Central Park, in Topeka, a good beginning is being made in planting a great variety of trees, and already some rare trees may be seen there that are not grown anywhere else in this vicinity. These are all object lessons that are of great value, not only for the knowledge and information they give, but for the spread and cultivation of interest in the subject of trees. All that one can learn of any subject only increases the desire for further knowledge. As object lessons, then, to gratify our own desires for a wider acquaintance with as many of the tree family as possible, and also to help stimulate an interest in this subject in others, let us plant a variety of trees, and take some pains to procure those not often grown, or those not found in our own woods, and it is the purpose of this paper to mention some that are desirable trees, and that have been grown in this locality.

That there are trees not native to this locality that are desirable is already shown by the planting of such large trees of certain species as the Osage orange for hedges and posts, the Catalpa speciosa for posts and shade and timber belts, and the Russian mulberry for windbreaks, and some others for ornament; but there are others that are not so well-known, that deserve a better acquaintance.

There are in the United States more than 500 species of trees, and in the State of Kansas about 70 species, which shows that we have still a large number to select from, outside of those grown in our own State.

I have found that there are now growing in Shawnee County more than 30 species of trees, besides the evergreens, that are not native to this locality. These are the hard maple, the red maple, the chestnut, the pecan, the persimmon, the sassafras, the red, or river, birch, the white birch and some of its varieties, the sweet gum, the deciduous cypress, the tulip-tree, the cucumber-tree, the yellow wood, the butternut, the horse chestnut, the mountain ash, the Russian olive, the wafer ash, the ginkgo, or maiden-hair-tree, the soapberry-tree (native of Western Kansas), the white mulberry, the Koelreuteria and sophora, from Japan, the Bolleana poplar, the Lombardy poplar, and the silver-leaf poplar, besides the Osage orange, catalpa of two or three species, the Russian mulberry, and the allanthurus.

Besides the trees mentioned, there are a great number of nurserymen's varieties of different species that are native, and other trees, many of which have distinct and desirable characteristics. One prominent firm of growers of ornamental trees, catalogues nearly 400 varieties of ornamental deciduous trees, each having some peculiar or

distinctive characteristic of form or foliage. From all these, selection can be made that would furnish a most interesting object lesson in any locality, and it seems to me that it would add greatly to the interest and attractiveness of any home to have it ornamented with as great a variety of trees as can be successfully grown.

One of the best-known trees, not native in this county, but found in some parts of the State, is the hard or sugar maple, a tree so well known that it does not need description. It does not deserve, however, its reputation as a slow grower, for in good soil, with some care and attention, this tree soon reaches a good size. The soft, or red maple is a more rapid grower, with not so dense a head, and a most beautiful color in the autumn.

The pecan and persimmon have both been grown in this county, but I am not sure that the former has ever fruited here.

The sassafras is found in only one county in this State, but when once established here is perfectly at home. This tree has clean, handsome foliage which is seldom disturbed by insects, and takes on a vivid red in the autumn, unequalled by any other tree.

The sweet gum and the deciduous cypress are both found natural in moist ground in States farther south, but both seem to thrive here even in dry situations. Both are extremely handsome, and are distinct and desirable trees.

The tulip, or whitewood, often called the yellow poplar, is one of the largest trees of the Eastern forests, and is easily grown here; and with its peculiar leaves and attractive flowers is one that should be planted often.

The magnolia acuminata, cucumber-tree, has been grown in Topeka, but I do not know of any living specimens at the present time. I have planted several specimens without success, and believe it may require especial care.

Several other species of foreign magnolias are successfully grown in Central Park, have endured three winters, and have blossomed each spring, and I am quite encouraged to think they will flourish, but as a rule the magnolias are extremely difficult to transplant successfully.

The virgilia, or yellow wood, is a handsome, medium-sized tree, a native of Kentucky and Tennessee, and grows rapidly.

The horse chestnut and mountain ash do not seem to thrive in this locality as well as in the States farther east, sometimes being affected with the rust, or blight, and I think are not easy to grow.

The sophora, the maiden-hair tree, and the Koelreuteria are natives of Japan, and the phello dendron, or cork-tree, a native of Manchuria; all seem perfectly at home here, and are interesting for variety.

The ptelia, or wafer ash, is a desirable small tree, a native of farther east, and with its bunches of wafer-like seeds in the summer, is quite interesting and attractive.

The Russian olive, with its silvery foliage, is sometimes successfully grown, although I think is not a long-lived tree nor as easily grown as some others.

The Bolleana poplar is a rapid growing tree, with beautiful foliage, silvery on the under side of the leaves.

The silver-leaf poplar is also an attractive tree, from its silvery foliage, but on account of its sprouting habit is not a desirable tree to plant.

The allanthurus, or tree of Heaven, is a native of China, and has been planted quite freely, as it grows anywhere and sprouts readily, which habit, with the disagreeable odor of the staminate specimens, makes this tree quite objectionable. Where the pistillate trees can be procured, the objection of the odor is obviated.

The red, or river, birch is found in a few counties in this State, and while usually found near streams, can be grown on dry ground. It is not so handsome a tree as the white birch, but is good to have in a collection.

Of the nurserymen's varieties, the Wiers cut-leaf maple, with drooping branches and finely divided leaves, is a most graceful and handsome tree and a rapid and easy grower, and Schwerdler's maple is one of the handsomest trees grown, with foliage bright red in the spring, and of a bronze or russet hue nearly the whole season through.

Of the trees that can not be grown at all here, or with only the greatest care, we may mention the beech, with its several varieties, the magnolias, the sour gum or tupelo, the American and English holly, and the paulownia, or purple catalpa. This beautiful tree may

be grown in the south part of the State, and one has been grown at Manhattan.

The white-flowering dogwood is also a difficult tree to grow here, although it is found in the southeast corner of the State.

The list of evergreen trees that may be grown here is quite limited. This is greatly to be regretted, as the evergreen trees furnish a great variety to the list of trees suitable for ornament and windbreak. There is hardly an evergreen mentioned that has not some serious objection if it can be grown at all in this locality, but it is hoped, and we may confidently expect, that further experiments will result in the discovery of a large number of varieties of evergreen trees that may be grown in this locality, which will add to the variety and interest of this most interesting subject. I think the members of this society who have room to plant trees for experimental purposes should be urged to do so, so that as soon as possible we may find out what trees can be grown here.

Kansas Fairs in 1906.

Following is a list of fairs to be held in Kansas in 1906, their dates, locations, and secretaries, as reported to the State Board of Agriculture and compiled by Secretary F. D. Coburn:

- Allen County Agricultural Society—Frank E. Smith, secretary, Iola; September 25-28.
- Barton County Fair Association—W. P. Feder, secretary, Great Bend; August 28-31.
- Brown County—The Hiawatha Fair Association—Elliott Irvin, secretary; Hiawatha.
- Butler County Fair Association—W. F. Benson, secretary, Eldorado; October 1-6.
- Chautauqua County—Hewins Park and Fair Association—W. M. Jones, secretary, Cedar Vale; September 11-13.
- Clay County Fair Association—Walter Puckey, secretary, Clay Center; September 4-7.
- Clay County—Wakefield Agricultural Society—Eugene Elkins, secretary, Wakefield; first week in October.
- Cloud County Fair Association—F. W. Daugherty, secretary, Concordia; September 25-28.
- Coffey County Agricultural Association—S. D. Weaver, secretary, Burlington; September 18-1.
- Cowley County—Eastern Cowley County Fair—J. M. Henderson, secretary, Burden; September 26-28.
- Cowley County Agricultural and Live-Stock Association—W. J. Wilson, secretary, Winfield; October 9-12.
- Elk County Agricultural Fair Association—E. M. Place, secretary, Grenola; September 19-21.
- Finney County Agricultural Society—A. H. Warner, secretary, Garden City.
- Franklin County Agricultural Society—Carey M. Porter, secretary, Ottawa; September 4-8.
- Greenwood County Fair Association—C. H. Weiser, secretary, Eureka; August 14-17.
- Harper County—Anthony Fair Association—L. G. Jennings, secretary, Anthony; August 7-10.
- Harvey County Agricultural Society—J. T. Axtell, secretary, Newton; September 25-29.
- Jefferson County Fair Association—G. A. Patterson, secretary, Oskaloosa; September 4-8.
- Jewell County Agricultural Fair Association—Henry R. Honey, secretary, Mankato; September 18-21.
- Linn County Fair Association—O. E. Haley, secretary, Mound City; September 11-14.
- Marshall County Fair Association—R. W. Hemphill, secretary, Marysville; September 11-14.
- McPherson County Agricultural Fair Association—E. S. Guymon, secretary, McPherson; September 4-9.
- Miami County Agricultural and Mechanical Fair Association—W. H. Bradbury, secretary, Paola; August 28-31.
- Mitchell County Agricultural Association—J. E. Tice, secretary, Beloit; last week in September.
- Montgomery County—Coffeyville Fair and Park Association—R. Y. Kennedy, secretary, Coffeyville; August 7-10.
- Nemaha County Fair Association—V. B. Fisher, secretary, Seneca; August 29-31.
- Neosho County—Chanute Fair and Improvement Association—A. E. Timpane, secretary, Chanute; August 28-31.
- Ness County Agricultural Association—R. D. McKinley, secretary, Ness City; September 5-7.
- Ness County—Utica Fair and Agricultural Association—R. C. Webster, Jr., secretary, Utica; August 30-September 1.
- Norton County Agricultural Association—M. F. Garrity, secretary, Norton; August 28-31.
- Osage County Fair Association—M. Carnaveaux, secretary, Burlingame; September 18-21.
- Reno County—Central Kansas Fair Association—A. L. Sponsler, secretary, Hutchinson; September 17-23.
- Republic County Agricultural Association—W. E. Wells, secretary, Belleville; September 11-14.
- Rice County Agricultural and Live-Stock Association—F. L. Goodson, secretary, Sterling; August 1-3.
- Riley County Agricultural Society—W. B. Craig, secretary, Riley; August 28-31.
- Rooks County Fair Association—E. L. Williams, secretary, Stockton; September 18-21.
- Shawnee County—Kansas Exposition Company—R. T. Kreipe, secretary, Topeka; September 10-15.
- Smith County Fair Association—M. A. Dimond, secretary, Smith Center; August 21-24.
- Stafford County Fair Association—P. O. Gray, secretary, St. John; August 22-24.
- Sumner County—Mylvane Agricultural Association—Robt. P. Seyfer, secretary, Mulvane.

INTERESTING LETTER

WRITTEN BY A NOTABLE WOMAN

Mrs. Sarah Kellogg of Denver, Color Bearer of the Woman's Relief Corps, Sends Thanks to Mrs. Pinkham.



Mrs. Sarah Kellogg

The following letter was written by Mrs. Kellogg, of 1628 Lincoln Ave., Denver, Col., to Mrs. Pinkham, Lynn, Mass.: Dear Mrs. Pinkham: "For five years I was troubled with a tumor, which kept growing, causing me intense agony and great mental depression. I was unable to attend to my house work, and life became a burden to me. I was confined for days to my bed, lost my appetite, my courage and all hope. "I could not bear to think of an operation, and in my distress I tried every remedy which I thought would be of any use to me, and reading of the value of Lydia E. Pinkham's Vegetable Compound to sick women decided to give it a trial. I felt so discouraged that I had little hope of recovery, and when I began to feel better, after the second week, thought it only meant temporary relief; but to my great surprise I found that I kept gaining, while the tumor lessened in size.

"The Compound continued to build up my general health and the tumor seemed to be absorbed, until, in seven months, the tumor was entirely gone and I a well woman. I am so thankful for my recovery that I ask you to publish my letter in newspapers, so other women may know of the wonderful curative powers of Lydia E. Pinkham's Vegetable Compound."

When women are troubled with irregular or painful periods, weakness, displacement or ulceration of the female organs, that bearing-down feeling, inflammation, backache, flatulence, general debility, indigestion or nervous prostration, they should remember there is one tried and true remedy. Lydia E. Pinkham's Vegetable Compound at once removes such troubles.

No other medicine in the world has received such widespread and unqualified endorsement. No other medicine has such a record of cures of female ills.

Mrs. Pinkham invites all sick women to write her for advice. She is daughter-in-law of Lydia E. Pinkham and for twenty-five years under her direction and since her decease has been advising sick women free of charge. She has guided thousands to health. Address, Lynn, Mass.

Remember that it is Lydia E. Pinkham's Vegetable Compound that is curing women, and don't allow any druggist to sell you anything else in its place.

Death of Floral Lawn Cause, Smothered by Dandelions

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

The Standard Incubator Co. PONCA, NEBRASKA

ECZEMA

If you are a sufferer from this terrible disease, send us your name and address, and we will send you one jar of MEXICAN ECZEMA CREAM, express prepaid. Give it a trial according to directions on the jar. If it does not do the work, it costs you nothing. If after giving it a trial you are satisfied it will do the work, send us one dollar (\$1.00). We take your word for it. What could be more fair than this? Address,

Mexican Manufacturing Co. Wichita, Kansas

SEGUINLAND A NEW SUMMER RESORT SHEEPSHOOT BAY COAST OF MAINE

The MEW SEGUINLAND opens June 30, 1906 R. O. HAMMOND, Manager

7 Temple Place, Room 27, Boston, Mass., until June 20; after this date, FIVE ISLANDS, P. O. Me.

When writing advertisers please mention this paper.

The Grange

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

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

NATIONAL GRANGES.

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

KANSAS STATE GRANGE.

Master..... E. W. Westgate, Manhattan
Overseer..... A. P. Beardon, McLouth
Lecturer..... Ole Hibner, Olathe
Steward..... R. C. Post, Spring Hill
Assistant Steward..... Frank Wiswell, Ochlitz
Chaplain..... Mrs. M. J. Ramage, Arkansas City
Treasurer..... Wm. Henry, Olathe
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Why Join the Grange?

Because it is inexpensive.
Because it is the farmer's only organization National in character.
Because it has stood the test for thirty-two years, and has never been found wanting in any respect.
Because it has exerted greater influence in securing State and National legislation in the interest of agriculture than any agency in the country.
Because it is officered by those engaged in agriculture, who know from experience the needs of farmers, and are sincere in their desire to aid them in every possible way.
Because it is the duty of farmers to cooperate with one another, if they would successfully meet the influence of organization in every direction, and secure for wife and home a fair share of what the harvest yields.
Because it has secured National legislation in the oleomargarine law, the establishment of the Interstate Commerce Commission, the establishment of rural free mail delivery, and State legislation in every State in the interest of the farming population.
Because it has exerted the greatest influence known in breaking up the isolation of farm life, and in making farm life attractive to the boys and girls, bringing sunshine and happiness into the farm home to such an extent as has never before existed.

What the Grange Has Accomplished.

The work of the Grange is of such a nature that its greatest accomplishments can never be cited only in a general way. We may state how many dollars have been saved to the farmers of the country through cooperative trade arrangements, and through mutual insurance companies, both fire and life, and something definite can be stated in regard to the vast saving to the farmers of the country through wise legislation secured, and unwise legislation defeated through the influence of the Grange; but when we undertake to make any estimate of the moral, social, and mental development that has been brought to the farmer and his family through Grange influence and Grange teaching, we are lost in the magnificent results obtained. It is absolutely impossible to give any intelligent estimate of the development of the noble principles of manhood and womanhood in the mind and heart of the million of people that have been connected with this order, and of the millions of other people with whom they have been associated. It is along this line that the grandest results have been achieved. Thousands of farm homes have been made happier and better, and the members of farmers' families have been reaping the higher enjoyments of life through the quickened mental abilities by Grange influence, while a higher ideal in life has been reached through the development of the heart by true Grange teaching. With these general statements, we leave the most important results during thirty-two years of Grange work to the imagination of our readers.
In matters of legislation, among the first objects to claim the attention and engage the efforts of the Grange were the State agricultural colleges of the country, many of which in their early days were united with, and became a part of, classical colleges and universities, thus in a large measure destroying their identity as agricultural colleges, and rendering them practically

worthless for the objects for which they were established.

Through the influence of the Grange a separation has been effected in a majority of States, and distinct agricultural and mechanical colleges have been established. In most of those States where the efforts for a separation have not been successful, the college authorities have been forced to give much greater recognition to agriculture, and with but few exceptions these institutions, separate and combined, are now doing a grand work in educating the farming youth of the Nation.

It was through the direct influence of the Grange that the additional appropriations for agricultural colleges by the 1890 act of Congress were confined to instruction only in agriculture and the mechanic arts.

The Hatch act for the establishment of State experiment stations, which are doing such a great work for the agriculture of this country, became a law by reason of the efforts of the Grange to secure its enactment.

It was through the influence of the Grange that the Department of Agriculture, at Washington, was raised to the dignity of other departments of the National Government, to be presided over by a Secretary of Agriculture in the President's Cabinet, thus giving farmers a voice in the policy of the Government as it effects the agricultural interests of the country.

The transportation question engaged the attention of the members of the Grange in the early days of the order, and in the famous Iowa case the decision was handed down from the Supreme Court of the United States that all railroad franchises are subject to the power which created them; or, in other words, that "the creature is not greater than the Creator."

Through the direct influence of the Grange, the Interstate Commerce Commission was established by act of Congress, which in a measure aims to control interstate traffic, and gives the people a means of redress from the injustice and extortions which are often practised by those gigantic corporations, thereby saving the people great annoyance and vast sums of money in reduced rates of transportation.

The subject of taxation has always engaged the attention of the Grange, and it is through the influence of this farmer's organization that in many States the burdens of taxation have been, in a measure, at least, equalized by a more equitable assessment of real estate between town or city and farm property, and by the enactment of laws taxing personal property and corporations which had hitherto paid little, if any, taxes for local or State purposes.

The Grange is strenuously opposed to adulterations of all kinds, and mainly through its influence State and National laws have been enacted to control the sale of oleomargarine and other butter frauds, and protect the great dairy interests of the country from these vile compounds which the unscrupulous manufacturers would place upon the market as pure butter.

Through the influence of the Grange, most maple-sugar-producing States have enacted stringent laws against the adulteration of this farm product, thereby protecting both producers and consumer from a spurious article.

The Grange successfully fought the driven-well and sliding-gate patents in the courts, saving enormous sums of money in royalties which were being extorted from farmers and others using them.

Through the influence of the Grange upon Congress, the extension of the patents on sewing machines was prevented, saving to the people fully 50 per cent in the prices, amounting to millions of dollars annually.

The Grange has a grand record of usefulness in legislation in nearly every State in the Union for its influence on the side of justice and equality in the enactment of many wise and judicious laws in the interests of the people, and for the protection and advancement of farming industries.

A recent victory of the Grange, and one of its grandest achievements, is the establishment of rural free mail delivery in various sections of the country. The Grange was the first organization to publicly proclaim that if it was right for the Government to carry mail to the homes of people in cities, it would be right for it to carry mail to the homes of people in the country, and through the discussion of the question and intelligent presentation of the matter to Congress, appropriations have been secured; first, for experiment, and now practically for permanent establishment of the system

South Dakota The Land of Plenty

Rich soil, a mild climate, and abundance of water have made South Dakota one of the best agricultural States in the Union.

The soil of Lyman County is unusually rich. It is a black loam with a yellow clay subsoil. The extension through Lyman County recently built by the

Chicago, Milwaukee & St. Paul Railway

has opened up a part of that State hitherto sparsely settled. Land is now selling at the rate of from \$8 to \$15 an acre, and it is altogether probable that valuations will increase 100 to 200 per cent within a year. South Dakota offers great opportunities for the small investor.

For Free Books and Folders about South Dakota kindly Fill Out This Coupon and mail to-day to

G. L. COBB, S.-W. P. A., 907 Main St., KANSAS CITY, MO.

Name.....
Street Address.....
City..... State.....
Probable Destination.....

of rural free mail delivery. This breaks up the isolation of farm life, will tend to secure better roads, and advance farm values wherever it extends. The results in this matter alone will justify the entire cost of the Grange from its establishment to the present day.

A Great Leader.

Bro. T. C. Atkeson, the worthy overseer of the National Grange, in discussing the needs of the Grange and those who work for it, speaks as follows of the present master of the National Grange, Hon. N. J. Bachelder:

"If the farmers of this country need one thing more than another, it is able, safe, sane, and incorruptible leaders, who can be relied upon to get up on their hind legs, in the midst of the miasmic fog of 'graft' that seems to be rising everywhere and shrouding the moral vision of our statesmen, and declare the principles of right, justice, and brotherhood as enunciated by the Grange.

"Alas! how many reformers go down before the seductive allurements of smooth arguments, and less smooth inducements, of the representative of 'graft' and 'privilege.' No man can receive higher commendation than to have it said of him: He did what he could for the right, as he saw it; and the friends and enemies of the people always knew where he stood upon public questions.

"The world despises a 'quitter,' and the 'ship subsidy' schemers have found the worthy master of the National Grange 'a good stayer.' The Grange does not need a United States Senator to tell it what to do or say, and the recent attacks made upon Brother Bachelder will only make him stronger with the American farmers. Brother Bachelder needs no defense at our hands, as he is abundantly able to take care of himself, as the 'ship-building trust' may learn from the following extract from his able pen:

"I have received several letters within a month from ship-building and ship-operating companies—apparently the most interested parties in the ship-subsidy subject—making extended arguments in favor of this legislation and regretting the 'mischief' that has been caused by the opposition of the Grange. In one of these letters we find this inquiry: 'Are we who build and own and sail ships mere aliens, strangers, men without a country, who have no share in the National protective system, no right to the consideration of Congress?'"

COMPETING WITH CHEAP LABOR.

"In behalf of the American farmers, we ask: 'Are we who grow the crops that constitute the basis of all industrial prosperity to market our products in foreign countries, in competition with the products of cheap labor, and at the same time be required to contribute to subsidies to be paid the owners of ships that transport these prod-

ucts, upon the sole and only plea of protecting them from the same cheap labor?'"

"The arguments and solicitation of no ship-building trust, nor influence of the leaders of any political party, will swerve the officials of the National Grange from standing by the interests of the farmers as expressed in their National non-partisan organization, and no persons who place success of any political party above loyalty to the farmers' interests have any place in dictating the policy of this organization.

"Agriculture is the basis of the wealth of the Nation. Manufacturing, transportation, and shipping are dependent for prosperity upon the prosperity of agriculture. Strike down agriculture by unjust subsidies to other industries, and the prosperity of the Nation is assailed in a manner that can only be counteracted through marvelously favorable natural conditions for abundant crops. Agriculture is the basis and not the by-product of American industries.

"A revision of the tariff may be necessary, not in the direction of building up a shipping trust, but in the direction of affording relief to the people from gigantic trusts that already are said to sell their products in foreign markets cheaper than at home.

"I am not writing this letter as an individual, nor as an officeholder in any political party, but as the representative and executive officer of the National Grange, the interests of which organization I am pledged to protect. The time has arrived when those representing the agricultural interests of the country must stand for those interests as people engaged in other industries stand by their interests.

"Agriculture will never occupy its true position among the industries of the country until there is a recognition on the part of our legislators of the fact that it is the basis of all industries and entitled to consideration as such, rather than an industry that should be content with such indirect benefit as may be derived from direct subsidies to other industries. I am confident such are the views of leaders in agricultural thought to-day representing both political parties, and in this we find the main reason for opposition to the ship subsidy bill. I am confident that the matter can and will be considered by intelligent members of the Grange everywhere as a great economic, rather than a political question, and such, I am sure, was the consideration given it by the National Grange and such State and subordinate granges as have taken action against it.

"If it be true that not one farmer in a hundred will receive a fraction of the benefit that he will be called upon to contribute towards a \$50,000,000 ship-subsidy appropriation tending to build up another gigantic trust, why should the farmers of the United States favor it?"

Weather Bulletin.

Following is the weekly weather bulletin for the Kansas Weather Service for the week ending June 19, 1906, prepared by T. B. Jennings, station director.

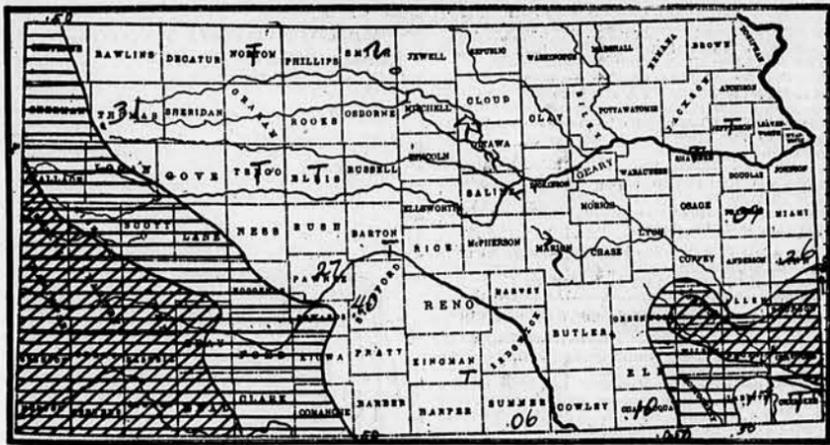
CLIMATOLOGICAL DATA FOR THE WEEK.

Table with columns for Temperature (Maximum, Minimum, Mean, Departure from normal) and Precipitation (Total, Departure from normal) for Western, Middle, and Eastern Divisions.

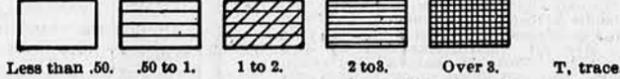
GENERAL CONDITIONS.

The weather in Kansas during the past week was generally cool, the temperature being below normal on the 11th, 12th, 13th, and 14th, but the subsequent days were quite warm.

RAINFALL FOR WEEK ENDING JUNE 16, 1906.



SCALE IN INCHES:



Eastern counties, except portions of Labette and Cherokee, also report ample precipitation. However, over a large part of the State practically no precipitation has fallen.

CONDITIONS BY COUNTIES.

EASTERN DIVISION.

Allen.—There was no rainfall this week. The temperatures averaged 71°, about normal. The nights were cool while the last days had warm afternoons, a maximum temperature of 90° being reached on the afternoon of the 15th.

cool, but temperatures rose as the week advanced. Cherokee.—Only a trace of rain fell this week but the ground is moist from the rains of previous weeks. There was much cloudiness and temperatures were moderate.

Coffey.—Typical summer weather prevailed this week except there was no rain. Rainfall would be beneficial.

Crawford.—Over an inch of rain fell on the 10th but none was recorded subsequent to that date. The first of the week was a little cool but warmer weather was experienced the latter part.

Elk.—There was no rain this week. The days, excepting Monday and Tuesday, were clear. The week was mostly cool.

Franklin.—The weekly rainfall consisted of a light shower of 0.09 of an inch on the 15th. Maximum temperatures did not reach 80° on the first three days, but the week ended warm.

Greenwood.—Three-quarters of an inch of rain fell on the 10th, but the rest of the week was rainless. The fore part of the week was rather cool but the latter part was about normal.

Jefferson.—It was a very dry week and the drouth is severely felt. Partly cloudy weather and moderate temperatures prevailed most of the time.

Johnson.—Rain is very much needed, otherwise the weather was pleasant.

Labette.—Dry, pleasant weather characterized this week. Temperatures rose gradually from the beginning to the close of the week.

Linn.—A light shower of 0.28 of an inch fell on the 10th. This was followed by cool weather till the 14th, when the weather began to get warmer, and by the end of the week a maximum of 90° was observed.

Marshall.—This was a dry, hot week. No rainfall occurred and maximum temperatures were in the nineties the last three days. On the 16th the maximum for the week, 99°, occurred.

Montgomery.—This was a week of fine weather. Three-quarters of an inch of rain fell on the 10th and was followed by cooler and partly cloudy days till the middle of the week, when it became warmer.

Osage.—Ideal weather obtained this week. There was no rainfall and temperatures were moderate.

Riley.—The drouth continues. The nights were rather cool, especially the fore part of the week, but day temperatures were seasonable.

Shawnee.—The week was practically rainless and the drouth is becoming very severe as a good, soaking rain has not been received for over two months. Temperatures were seasonable. Easterly winds prevailed and there was much cloudiness.

Wilson.—The first of the week was cool and the last two days moderately warm. On the night of the 9th we had a heavy shower of 0.81 of an inch and the worst lightning of the season.

Woodson.—Over an inch and a half of rain fell on the 10th. Temperatures were a little low the fore part of the week but became seasonable the latter part.

Wyandotte.—The week was generally pleasant but without rain. Friday and Saturday were hot, the temperature reaching 93° on the latter day.

MIDDLE DIVISION.

Barton.—No measurable precipitation fell this week. The nights were cool and the days, especially the last two, were warm.

Butler.—Cool nights occurred this week and the temperature falling to 46° on the 13th. The days were moderately warm.

Clay.—There was no rain this week. Temperatures were moderate the first of the week but oppressively warm the last two days, a temperature of 96° being recorded on the 15th.

Cloud.—Temperatures were below normal till the 15th. Nights were cool. A minimum temperature of 45° occurred on the morning of the 14th. No rain fell this week.

Ellis.—The days were hot, dry, and clear, with light winds. Only traces of rain fell.

Ellsworth.—There was no rain this week. A minimum temperature of 42° occurred on the morning of the 13th, but the weather was very warm the last two days.

Jewell.—The days were clear and rainless. Temperatures were moderate. The wind was light all week.

Kingman.—The week was dry but there was considerable cloudiness. The highest temper-

Sedgwick.—Excepting the cloudy weather on the 11th, the week has given almost unbroken sunshine. However, the weather was cooler than the average until the 15th. The only precipitation was 0.18 of an inch of rain on the 10th.

Smith.—The week was rainless with high winds. The highest temperature was 93°, and the lowest 49°.

Stafford.—Rains amounting to 0.40 of an inch fell on the 11th and 12th. Maximum temperatures were in the eighties from the 11th to the 16th. The nights were rather cool. A minimum of 45° occurred on the morning of the 13th.

Summer.—This was a cool, dry week. The highest temperature was 90° on the 15th, the lowest 45° on the 13th, and the rainfall 0.06 of an inch.

Washington.—The week was without precipitation and there was much sunshine. Maximum temperatures were in the eighties till the 14th, after which date the days were oppressively warm, a maximum of 97° occurring on the 16th.

WESTERN DIVISION.

Clark.—The week was very pleasant. Rainfall amounting to an inch occurred on the 10th and 11th.

Ford.—The week began and ended with seasonable weather but the middle part was cool. Clear weather generally prevailed. Showers amounting to 0.80 of an inch of precipitation fell on the 11th and 15th.

Gray.—Showers fell on the 10th, 11th, and 15th amounting to almost an inch of precipitation. Maximum temperatures were in the eighties on all the days except the 11th and 12th.

Hamilton.—Good rains amounting to 1.31 inches fell on the 10th and 14th. Day temperatures ranged in the eighties till the 16th, when the maximum for the week, 92°, occurred. Night temperatures were in the fifties and sixties.

Kearny.—Showers on the 10th, 11th, and 15th, amounting to 1.32 inches, have furnished plenty of moisture. Temperatures were about normal and very uniform.

Lane.—The week has been moderately warm with but little wind. The highest temperature was 89°, the lowest 44°, and the precipitation 0.56 of an inch.

Norton.—Clear weather and moderate temperatures prevailed till the last two days, which were very hot. Only a trace of rain fell.

Scott.—The week, excepting the latter part, was cool. There was considerable sunshine. Showers on the 11th and 15th amounted to 0.61 of an inch of precipitation. The highest temperature was 92°, and the lowest 47°.

Thomas.—Light showers fell on the 10th, 11th, and 14th amounting to 0.81 of an inch of precipitation. Southerly winds prevailed.

Trego.—Only traces of rain fell this week. Temperatures rose as the week advanced. The highest temperature was 94° on the 16th, and the lowest 48° on the 14th.

Wallace.—The week was favorable for growing vegetation. Moderate showers on the 11th and 15th amounted to 0.80 of an inch of rainfall. The highest temperature was 91° on the 16th, and the lowest 47° on the 10th.

Kansas City Live-Stock Markets.

Stock Yards, Kansas City, Mo.

Extra heavy cattle receipts first of last week met lower prices, but the week closed with the loss more than regained, in spite of the fact that the total run was 43,000 head, very large for the season. Stockers and feeders did not keep in line with killing cattle, but remained dull and raggy all week, closing 15@25c lower. Movement of this class to the country was 225 cars for the week, but dry pastures and fears of injury to corn are, of course, hurting trade in stockers and feeders. Supply to-day is 11,000 head, smaller than a week ago, but liberal. Dry weather is not directly forcing in many cattle as yet, but is probably causing some shippers to market cattle a week or two sooner than they otherwise would, anticipating a drouth. To-day's cattle supply in the native division is mainly from Northern Kansas and Southern Nebraska. Heavy rains fell northwest of here in Kansas and Nebraska last night, other portions of Kansas got it last week, and no general drouth is indicated now. Top steers to-day \$5.40, best cattle selling at \$5.20@5.60, plain and medium steers \$4.50@5.15, good to choice heifers \$4.50@5, medium she stuff \$3@4.25, canners and stock cows lower, \$1.75@2.75, bulls lower \$2.50@3.75, veals quarter lower, more than 5,000 calves received last week, \$4.50@6.25, stockers and feeders \$3@4.35.

Receipts of hogs last week, 79,400 head, were heaviest since December, 1901, more than four years ago, yet prices closed the week strong, and a shade above close of previous week. Buyers need large numbers of hogs, and are unable to stick together long enough to effectually reduce prices. A combination was formed last Tuesday and the market broke 10c, but all hands were scrambling for hogs early Wednesday, giving sellers the best of it balance of the week. Market is strong to 5c higher to-day, top \$6.60, bulk \$6.40@6.55, light weights up to \$6.50, a shade nearer the top than a week ago.

Sheep and lambs gained 15@25c last week, supply moderate at 24,000 head, market strong to-day, run 2,500. Not many natives are included, spring lambs \$7@7.55, wethers \$5.75@6.25, ewes \$6@6.75, fed Western lambs, clipped \$6@6.60, Texas goats for the country, \$3.50@3.65. Texas and Arizona muttons make up majority of receipts, Texas muttons at \$5.25@5.65, Arizonas \$6.25@6.45. Prospects favor good prices. J. A. RICKART.

Grain in Kansas City.

Receipts of wheat in Kansas City yesterday were 59 cars; Saturday's inspections were 26 cars. Prices of hard wheat were unchanged to 1/4c lower, and 1c down on red wheat. The sales were: No. 2 hard, 1 car 79c, 3 cars 78 1/2c, 8 cars 78c, 3 cars 77 1/2c; No. 3 hard, 2 cars 75 1/2c, 4 cars 75c, 2 cars 74 1/2c, 3 cars 74c; No. 4 hard, 1 car 73c, 1 car 72 1/2c, 2 cars 72c, 1 car 71c; rejected hard, 1 car 70c, 1 car 64c; No. 2 red, nominally 83@85c; No. 3 red, nominally 79@83 1/2c; No. 4 red, nominally 70@78c.

Receipts of corn were 69 cars; Saturday's inspections were 31 cars. Prices were 1 1/4c to 2 1/4c lower, as follows: No. 2 white, 5 cars 50 1/2c, 4 cars 50c; No. 3 white, 1 car 50c; No. 2 yellow, 1 car 50c, 2 cars 49 1/2c, 1 car 49 1/4c, No. 3 yellow, 1 car 49 1/2c; No. 2 mixed,

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2 cars 49 1/2c, 10 cars 49 1/4c, 7 cars 49c; No. 3 mixed, 6 cars 49c, 1 car 48 3/4c. Receipts of oats were 7 cars; Saturday's inspections were 3 cars. Prices were about 1c down, as follows: No. 2 white, nominally 40@41 1/2c; No. 3 white, 2 cars 40c, 1 car color 39 1/4c; No. 2 mixed nominally 38@39c; No. 3 mixed, 1 car 38c.

Barley was quoted 50@52c; rye, 55@57c; Kafir-corn, 96c@1 per cwt.; bran, 83@85c per cwt.; shorts, 85@90c per cwt.; corn-crop, 98c@1 per cwt.

South St. Joseph Live-Stock Market.

South St. Joseph, Mo., June 18, 1906.

The week opened with about the same volume of cattle in sight as a week ago, but too much of the supply was concentrated in Chicago, where there were 34,000 head against less than 20,000 at all four river markets. Under this condition the buyers took their cues from Chicago and forced prices to a lower level for the bulk of their beef cattle. On the local market a run of 2,800 included a liberal proportion of steers, but nothing on strictly choice or prime order. The best cattle offered sold at \$5.10, and bulk of the medium-to strong-weight steers at \$4.80@5. Prices on these generally showed 10c decline, as did also good fat light and handy weights going at \$4.75@5. Medium-fleshed steers did not show any appreciable decline selling in a range of \$4.25@4.60. Offerings in the butcher line were comparatively meager, and the market held steady with a few of the best cows and heifers showing a little strength. Sales of killing cows and heifers were largely in a range of \$3@3.60 with canners and light green heifers at \$2.75 down. The range and cooler weather have been beneficial to the stocker trade and a fair demand is anticipated on future days of the week.

Hogs continue to be marketed in very fair volume but the demand is good and prices are holding up well on the higher level established late last week. A wider range is noted in prices, but this is to be expected at this season of the year as buyers will not take hold of hogs freely where they show the effect of running on grass and discount them as compared with the straight, dry-lot corn hogs.

Notice.

Notice is hereby given that the adjourned annual meeting of the stockholders of The Topeka & Northwestern Railroad Company, and a meeting of the stockholders to consider proposed amendments to the by-laws of the company, will be held at the office of the company in the Office Block, in the city of Topeka, Shawnee County, Kansas, on Saturday, the 7th day of July, 1906, beginning at ten o'clock a. m. By order of the Board of Directors. H. A. SCANDRETT, Secretary.

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, Kansas, or to Dr. C. L. Barnes, Veterinary Department, Kansas State Agricultural College, Manhattan, Kans.

Effect of Alfalfa.—I would like to know the effect, if any, of new alfalfa on stock. I have two stallions and two jacks and, being unable to furnish them with necessary green feed, I bought some new alfalfa and find it a great feed. We put 105 pounds on a 4-year-old stallion in twenty days, but think it is hard on the kidneys; there is a copious discharge of clear water, but whether it is detrimental I am unable to say. W. A. T. Peru, Kans.

Answer.—Too much alfalfa is detrimental to the proper function of the kidneys; would advise feeding some prairie hay in connection with the alfalfa or you may get inflammation of the kidneys.

Leucorrhoea.—I have a 5-year-old mare that has a colt 3 years old; was bred all last year to different horses and again this year without results; she has a discharge for nine days after breeding. She is in good health. The discharge is thin. A. J. B. Pomona, Kans.

I would judge from your description that the mare is suffering from leucorrhoea, and would advise as an injection the following: 1 dram of lead acetate, 1 1/2 drams of zinc sulfate to a quart of water, twice daily, until discharge ceases.

Lame Mare.—My 7-year-old mare is lame in left front shoulder; she is worse in winter; one veterinarian thought the trouble was in the ankle, the other doctored for sweeney. What is the trouble? There is no swelling and the mare is in good condition. She holds foot forward; she lies down a great deal of the time and generally on right side. She stumbles much in walking. Could it be rheumatism? Geneseo, Kans. H. G. B.

Answer.—From the symptoms you give I would think the trouble was in the horse's foot, possibly navicular disease. I think the animal can be greatly relieved by putting a high-heeled shoe on the affected foot and set the toe calk back between the first and second nails.

Paralysis in Sows.—Some of my sows are lame in hind quarters and can not get up without help. They seem to be in pain, but have good appetites for corn. They have had alfalfa and blue-grass and plenty of good, fresh water. Am feeding a little oil-meal in slop and corn. Have used turpentine on their backs. A SUBSCRIBER. Montgomery County.

Answer.—There is evidently some paralysis in the sows' hind quarters that is causing the trouble. The stimulating liniment that you are using will doubtless be of benefit. Do not feed too much corn, but give bran and ground oats.

Ergot.—Does ergot poisoning on hay that is fed to stallions affect their breeding, and to what extent? If hay that contains ergot is fed to work horses with grain, will it affect them in any way? Is there anything that can be fed with hay that contains ergot to prevent injury to stock? Sharon, Kans. N. BROS.

Answer.—The effect of feeding ergot to any animal is a closure of the blood vessels in the extremities, thus lessening the circulation, and the part beyond the circulation dies from lack of nutrition. It would not be practicable to give medicine to counteract the ergot, in order to utilize the hay that contains the ergot.

Mule Has Injured Shoulder.—My 3-year-old mule was hurt, I think kicked, on right shoulder about a week ago was driven 25 miles the next day—had then a very large lump as big as a dinner-plate which I bathed with hot water frequently for two days, and the swelling was reduced, and he was driven on several short trips; the swelling returned and runs down to his breast. Had the lump opened and a small amount of pus and blood escaped. Am blistering the lump now; he is stiff and lame. What shall I do? J. I. Barnes, Kans.

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Special Want Column

"Wanted," "For Sale," "For Exchange," and small want or special advertisements for short time will be inserted in this column without display for 10 cents per line of seven words or less per week. Initials or a number counted as one word. No order accepted for less than \$1.00.

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RED POLLED BULLS—All ages up to 14 months. Fine dark red, blocky fellows. Just what you want. H. L. Pellet, Eudora, Kans.

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FOR SALE—The pure Cruickshank bull, Violet Prince No. 145647. Has been at the head of our herd as long as we could use him. An extra animal. H. W. McAfee, Topeka, Kans. 2 miles west of Kansas Ave. on Sixth street road.

FOR SALE—Registered Jersey cattle. Two yearling bulls. Sires—A son of Besse Lewis, 32 lbs. butter 7 days, and "Financial Count" (imported); granddam held Island butter record 3 years. Sire's dam holds public milk record of 58 pounds daily, and his dam and Island winner in class for two years. Her four dams 22 to 26-quart cows, and all winners. Sayda Polo Jersey Farm, Parsons, Kansas.

Answer.—Would advise cleaning the wound out with some good disinfectant like carbolic acid and then use the healing powder to heal up the wound. Would not advise blistering the lump.

Knot on Colt's Leg—Bloody Milk.—I have a colt that was very crooked at birth, but is fairly straight now, though still a little knee strung. I led the mother and colt 6 or 7 miles after it was 3 days old, and the trip tired it badly. On bringing the colt back after five weeks, I find a tolerably hard knot on the outside of right fore leg just below the knee; both knees seem to be somewhat enlarged; it is a little lame in the right leg. It has had no treatment. What is a preventive of distemper?

Some of my cows are giving bloody milk from one or more quarters. Sometimes the separator will show traces of blood in the milk when we can not see any in samples saved and set aside from the different cows, to detect which cow gives this milk. It is always in the evening that the milk is bloody. They have good grass pasture and pond water that is good yet. D. E. B. Wauneta, Kans.

Answer.—Would advise using the following liniment on the knot on the colt's leg: Compound soap liniment 1 pint, tincture of iodine 4 ounces, tincture of cantharides 2 ounces, tincture of belladonna 2 ounces; apply this to the lump and also to the lame leg.

A good preventive for distemper is the following tonic: 1 ounce pulverized nux vomica, 2 ounces pulverized iron sulfate, 4 ounces pulverized gentian, 6 ounces pulverized fenugreek, 10 ounces pulverized glycyrrhiza root, 15 pounds oil-meal; mix and give a heaping teaspoonful night and morning in ground feed.

The symptoms you give of the cows would indicate inflammation in the affected quarters; would advise melting together 4 ounces of gum camphor and 10 ounces of lard, stirring until cool, and apply to affected quarters three times daily with considerable hand-rubbing. C. L. BARNES.

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FOR SALE—One black team, 6 and 7 years old, weight 2,600 pounds. Mr. & Mrs. Henry Schrader, Wauneta, Kans.

LOST OR STRAYED—Brown mare, weight 1,100 pounds, white spot in forehead, barb wire cut on side, somewhat swaybacked. Suitable reward for return. J. W. Gillard, 536 Highland Ave., Topeka, Kans.

REAL ESTATE.

BUY LAND OF OWNER—Save commission. Stock and Poultry farm for sale on Hickory Creek, Butler County, Kans. Address Benj. Mayfield, Latnam, Kans.

AGENTS WANTED.

Wanted—Gentleman or lady with good reference, to travel by rail or with a rig, for a firm of \$250,000 capital. Salary \$1,072 per year and expenses; salary paid weekly and expenses advanced. Address with stamp, Jos. A. Alexander, Topeka, Kans.

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WANTED AT ONCE—Man and wife to manage dairy farm near Topeka. Good place for the right parties. Address H. C. H., Care Kansas Farmer, Topeka, Kans.

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State Grain-Inspection Department Under the provision of an act to establish grades by the Grain Inspection Commission appointed by the Governor of Kansas, passed and approved by the session of the Legislature of 1903, the commission will meet at the office of the Governor of Kansas at the State Capitol on the 6th day of July, 1906 at 10 o'clock A. M. for the purpose of fixing and establishing the grades and character of grain in the state of Kansas for the year subsequent to the first day of August, 1906, and for doing or performing any other acts that may be incumbent on said Board of Grain Inspection Commission. All persons interested in the buying, selling or handling of grain in the State of Kansas are invited to be present and make suggestions or objections to matters pending then before said Grain Inspection Commission. G. W. GLICK, JOHN T. WHITE, J. M. OOREY, Grain Inspection Commission. June 14, 1906.

Stray List

Week Ending June 14.

Pottawatomie County—C. A. Grutzmacher, Clerk. HORSE—Taken up by C. L. McKee in Grant tp., P. O. Havensville, April 28, 1906, one 3-year-old iron gray mare; valued at \$50.



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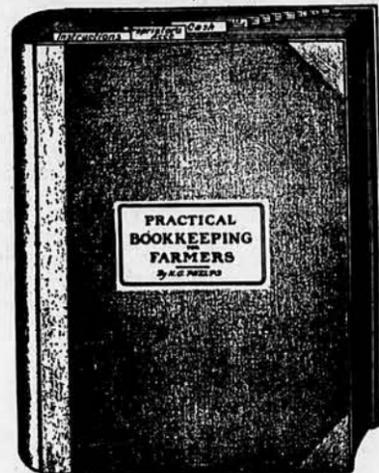
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