

KANSAS FARMER

NEBRASKA
OKLAHOMA

Volume XLV. Number 30

TOPEKA, KANSAS, JULY 25, 1907

Established 1881 \$1 a Year

GRAIN RATES BEFORE THE INTERSTATE COMMERCE COMMISSION.

A hearing of the case of the Farmers', Merchants' and Shippers' Club of Kansas against certain railroads was held in Topeka last spring before two members of the Interstate Commerce Commission. The evidence presented was considered by the full Board in session at Washington last week. The news dispatches give the following summaries:

"The complaint in issue is the reasonableness of defendants' rates on grain from Wichita and other shipping points in Kansas to Kansas City, Mo., and to Galveston, Texas, for export and to various destinations in Texas for domestic consumption. The commission found that the rates to Galveston for export and to the various destinations in Texas for domestic consumption are unreasonable of themselves and ordered reductions ranging from three to five cents per 100 pounds to be made.

"It appeared that the rates from the shipping points must be the same to Kansas City, Mo., and to Kansas City, Kans., and that after the complaint was filed the Legislature of Kansas reduced by 15 per cent the rates to the latter point, whereupon the defendants, after accepting the reductions, reduced correspondingly the rates to Kansas City, Mo. For those reasons the commission took no action concerning the latter rates. The destination points in Texas are divided into groups numbered 1, 2, 3, and 4; at the hearing representatives of the city of Lancaster contended that the city should be transferred from group 2 to 1, and the commission upheld this contention.

"Undue discrimination against the shipping points in favor of Kansas City, Mo., was alleged, but the commission refused to sustain that feature of the complaint."

SOUND TALK ON FARMERS' DAY.

Farmers' day at the Topeka Chautauqua was observed last Saturday. The speakers representing this special feature of the program were Prof. J. D. Walters and Prof. J. T. Willard of the State Agricultural College.

Professor Walters said that the farmers of this country had begun to think. He said further:

"Agriculture in the United States has attained a high degree of efficiency but in the next thirty years I look for still greater advancement. We now have under way at the Agricultural College, experiments that would startle you if you knew their nature. We have made many discoveries and inventions that have improved farming a great deal but I believe we have just entered a period

of improvements that will place agriculture on a high plane in a few years."

The lecture was arranged around the suggestive title "Gumption." It abounded in wisdom enlivened with the quiet humor for which the Professor has been famous for a third of a century.

Professor Willard, chemist of the Agricultural College and Experiment Station and of the State Board of Health spoke of the pure food and drug laws. He began by saying that in primitive days and even within the memory of many men still living the question of food quality was not important, but since the increasing complexity of human society, many preservatives, flavors, and adulterants had entered the market until the time came in the interests of public sanitation that there be absolute restrictions on this. He said that there was the complaint on the part of some that there should be the least amount of legislation possible. But he said that on account of the growing intricacies of society it had been found necessary to make more laws. These laws, he contended, of course, should not be in the interest of any class, but for the protection of the general public.

"I've heard," he said, "that the chemist for a great creamery had quit eating butter. I've heard, too, that those who worked in canning factories or places where they can fish are unable to muster up an appetite for those things which they handle. Some of these stories may be a little far-fetched, but it shows what the conditions have been in the past as regards the preparation of food products."

Professor Willard then referred to the national pure food and drug act which became effective June 30, 1906, which had jurisdiction over matters of interstate commerce. But the State, he showed, was further protected in the matter of this sort of law. This, he said, had been brought about largely through the untiring efforts of Secretary Crumrine of the State Board of Health. The State law, he said, was similar to the national identical, this having been done for facilitating law; in fact there were parts which were business of dealers, wherever it was compatible with the best sanitary regulations. In some respects he believed the State better than the national pure food law.

The speaker said there was a great guiding principle in this connection that the law assured us of what we were buying. Chemists of the country, he said, had gotten together on many standards for pure food. A set of standards had been promulgated by the national Department of Agriculture and in Kansas these were legal.

Some modes of adulteration were given as follows: Addition of something that reduces the

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KANSAS FARMER.

Established in 1868.

Published every Thursday by
THE KANSAS FARMER COMPANY
(Incorporated, January 1906).
Topeka, Kansas

SUBSCRIPTION PRICE: \$1.00 A YEAR

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

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quality or diminishes the strength; addition of injurious mineral substances to confections for coloring and the like; substitution of one substance for some other; removing some important part and concealing damage or inferiority. Professor Willard said that cream must contain at least 18 per cent butter-fat, and that ice cream must have at least 14 per cent.

"Pure food and drug laws are in the interest of the honest producer of goods as well as they are to the advantage of the consumer. Most of the producers, therefore, it is not strange to say, are in favor of the requirements of the pure food and drug laws. Of course, there are those who would prefer to sell cheaper articles. But these laws permit a man to do an honest business and to make a profit at it."

HOG-TIGHT FENCE ALONG RAILROAD.

EDITOR KANSAS FARMER:—I should like to have a little information printed in the "Old Reliable." I have eighty acres of land which extends to the L. K. and W. right-of-way. I am fencing my three sides, hog-tight with a 20-inch American hog fence and three wires above, with posts one rod apart. Can I compel the railroad company to put a hog fence on their right-of-way which is just eighty rods? How could I go about it? Of course, I don't want a law suit but want to go about it in a business way and get it done this fall.

H. A. DOYLE.

Riley County.

The General Statutes of Kansas, edition of 1905, provide at section 6377, that, "Any person owning land by or through which a railroad has been or may be constructed, who has or may enclose the same or any part thereof and adjacent to the line of such railroad, with either a lawful fence or a hog-tight fence, may demand of such railroad company that it enclose its line next thereto with a lawful fence or a hog-tight fence, and maintain the same."

The person desiring hog-tight fence should give notice in writing describing the land on which the hog-tight fence is desired. Such notice should be given to the railroad company through its agent at the nearest station. It is well to keep an exact copy

of the notice for future reference and possible use.

If the railroad company neglect or refuse to build the fence within sixty days of the date of service of the notice, the owner of the land may build the fence, entering upon the company's right-of-way to do the work, and may recover the reasonable cost of such fence together with a reasonable attorney's fee for the prosecution of any suit to recover the same.

The land-owner has a right to attach his fence to that of the railroad company for the purpose of inclosing his adjacent land.

There is usually little difficulty in obtaining the desired fence by thus giving notice and proceeding to build fences on the other three sides of the pasture. If, however, there is unreasonable delay, after following the course here indicated, write again to THE KANSAS FARMER a full statement of what has been done, enclosing copy of the notice served on the station agent, and the editor will present the case to the higher officers of the railroad company, or will give such further direction in the matter as the situation seems to demand.

It is well in case of unreasonable delay to inquire of the station agent for information, and to ask the section foreman whether he has received orders to build the fence. Perhaps further trouble may be avoided by taking this editorial to the station agent at the expiration of sixty days and assuring him that there is no desire to embarrass him with the higher officers of the company, but that it will be necessary to have the matter presented to such higher officers unless quick action can be assured.

ASPECTS OF THE HIRED HELP PROBLEM.

To hire or not to hire help on the farm is a question that is under serious consideration in many households. The growing scarcity of reliable hands, the advance in wages, the ever-present anxiety whether it will pay, the supervision necessary, the matter of board—these are elements requiring more than superficial attention.

In the discussion before a meeting at Brandon, Canada, Prof. J. H. Grisdale, of the Central Experiment Farm at Ottawa, Canada, said that he had come to the conclusion that the farmer who hired the most help in proportion to the amount of land under cultivation got the best returns. He found that the man who let his land run to pasture and employed the least possible labor, amounting to a man's time for about half a year, got a profit of about \$200 to \$250 per hundred acres of land. Where grain was grown on part of the land and labor to the value of a man and a half a year was employed, the profit was from \$800 to \$1,000 per hundred acres. Where general live stock was gone into, requiring the employment of three men, the annual profit for a hundred acres was from \$1,500 to \$2,000. On dairy farms, where four or five men were employed the year around, the profits per hundred acres amounted to from \$3,000 to \$4,000. Under the most intensive system of farming, where twenty-five men were employed, the profits from a hundred acres ran as high as \$20,000.

The returns from hired labor depends to a great degree upon the efficiency of the supervision by the head of the enterprise. This must be strong, diplomatic, constant, and inspiring. Such supervision is not suited to a lazy man, or to one whose efficiency at holding down one side of an empty box at the corner grocery is well established. The mind of the man must be alert as to his interests, and his views must be well formed as to every detail of his work. He need not be a tyrant. Indeed, a tyrant is not likely to make a success of farming with hired help. But, every man should be treated as a man, with a view to helping to bring out the best of which he is capable, and he will reciprocate by doing better than was expected.

The day of intensive farming is drawing nearer. Its dawn should

bring greater satisfaction as well as greater profits to the farmer and all connected with him.

SERVICES OF A BULL.

EDITOR KANSAS FARMER:—I would like to ask a question through your good farm paper. A's and B's pastures join. A always has a bull in his pasture for breeding, and B hasn't had a bull in his pasture for several years, but puts cows in each season. A's bull gets in B's pasture and serves B's cows. B is pleased to have A's bull with his cows. Can A collect for services of the bull?

AN OLD SUBSCRIBER.

Dickinson County.

In THE KANSAS FARMER of October 26, 1906, a case was considered in which a scrub bull went through a partition fence and served pure-bred cows to the detriment of the owner. The law, General Statutes of 1905, Sec. 8108, was quoted as follows:

"If any bull over one year old, or boar over six months old be permitted to run at large, the owner shall be guilty of a misdemeanor, and on conviction thereof shall be fined for the first offense five dollars and for every subsequent offense shall be fined ten dollars."

This law makes no reference to how the bull shall be restrained from running at large, or getting into a neighbor's pasture, but broadly requires the owner to prevent the bull from running at large. The plain implication is that the owner must consider the disposition of the bull to disregard fences and ordinary means of restraint and must provide such restraint as shall be sufficient. When the owner fails to provide such sufficient restraint he is at fault, and there may be a question whether he has a legal right to collect for services of the bull under such circumstances.

But there is another aspect of the case. The neighbor appears to have suffered no damage, but on the contrary, to have received valuable services. As a matter of equity he ought to pay for the value received, and a court might hold that he should pay a reasonable compensation.

But this case should not get into Court. No man ought to want something for nothing. If B wants his cows served and gets value from the service, even though he has not ordered it, he should remember that to own and keep a pure-bred bull involves considerable investment and expense for which he as a beneficiary should contribute an equitable portion.

CAN GET COPY OF SCHOOL LAWS.

EDITOR KANSAS FARMER:—Will you please tell me where I can get a copy of the school laws of Kansas? Can you tell me whether this law book contains instructions concerning the duties of the members of the board?

Leavenworth County. P. M. FORD.

Copy of the school laws of Kansas containing instructions as to duties of members of the district board may be obtained from the State Superintendent of Public Instruction, Topeka, by sending ten cents to cover cost of postage. The edition which will contain the amendments adopted by the Legislature of 1907 is not yet out. It will be available about September 1.

Some of the most careful authorities are estimating the corn crop of the United States as some 400,000,000 short of last year's crop. Oats is also very short. The shortage of the wheat crop is placed at 117,000,000 bushels. Corn is a good prospect in Kansas, and while oats is short, wheat is threshing out beyond expectations. The situation is one favorable to good prices for the grains. Looks as if the Kansas farmer is to have more money to loan than ever before.

The catalogue of the Kansas Agricultural College for 1906-7 is just out. It shows an enrollment of 1937 students. Those desiring information about this great institution and the men and women who have graduated from its courses of study should ad-

dress President E. R. Nichols, Manhattan, Kans., and obtain a copy of this catalogue.

Some persons are now figuring the Kansas wheat crop at 70,000,000 bushels. THE KANSAS FARMER is not averse to being compelled to revise its estimate of 60,000,000, made a few weeks ago. Reports from the threshers are very satisfactory.

Miscellany

More About Chinch-Bugs.

EDITOR KANSAS FARMER:—In answer to a chinch bug inquiry in THE KANSAS FARMER of July 18, "you say:"

"Many years ago Prof. F. H. Snow, of the Kansas University, distributed very large quantities of diseased chinch bugs for the purpose of infecting this pest with the disease. The work was done so thoroughly that little damage from chinch bugs has been experienced since that time. It is to be expected, however, that the pest will reinfest Kansas, coming from Oklahoma where the farmers had not the advantage of the spread of the chinch bug disease. I think, however, that no diseased bugs are now being handled from any source, so that the best that can be done is to follow Professor Hunter's directions as given on page 400 of THE KANSAS FARMER."

The corn and wheat growers of the west have had the chinch bugs to deal with for 50 years. There is little more knowledge among the farmers now of how to deal with them than there was at the beginning of their ravages. Perhaps 40 years ago the Illinois and Iowa farmers made as effective solution of the problem as can be made by raising less wheat especially spring wheat. I do not believe Prof. Snow's remedy ever had any perceptible effect upon the bugs in Kansas. Further I do not believe after his wide experience that he will make any great claim for his supposed remedy. Forty and fifty years ago there was much winter and spring wheat grown in Illinois and Iowa. Periodically the bugs wrought havoc with the spring wheat and corn and damaged the winter wheat. The winter wheat usually ripened too early for the bugs to get in their work. But just when the farmers were in despair a wet summer came to their relief and the bugs disappeared for a few seasons but only to return as bountiful as ever after a few seasons of general sunshine. The unscientific farmer said they were drowned out. But the parasite discovered by Prof. Snow a few years ago was doing just as effective work 50 years ago. Farmers of that period can remember times when a half bushel of dead fungus bugs could have been gathered up on a square rod in the wheat field. But the parasite never did effective work except in wet weather and when the bugs were nearly or full grown. I have seen Prof. Snow's diseased bugs scattered all over a field covered with bugs and could not observe that they were thinned out any and I have seen other fields equally infested that had not a live bug in a week that had depended upon the ever present parasite for infection. The conditions however were different. If the conditions are right you will need no culture bed for the parasite. They are like our poor, always with them. Now it follows that if you will destroy these bugs you must produce the conditions. But this will be apparent to every one to be about as impracticable as making rain. I heard a very practical old man once say out in western Kansas during the rain making furor of the early 90's that he who talks about making rain does not know the cause nor the immensity of the cause. A bucket of water was poured down on him from an upper window and he laughingly conceded the point to that extent. Now if you wish to start conditions in this small way and have a corn field covered with bugs cut down a few rows and throw in piles and in a few days you may have the

satisfaction of uncovering enough dead fungus covered bugs to scatter all over your township. You'll need no cults to start with. You may do something in a practical way by planting a dozen rows of corn along your wheat field very early in the spring and at harvest time every day or so cut two rows and throw in piles and I believe you will see a difference in your adjoining cornfield from that of your neighbors. C. B. DAUGHTERS. Manhattan, Kans.

A Few Words from a Rural Mechanic.

EDITOR KANSAS FARMER:—A good blacksmith is needed in every rural community. We have many blacksmiths who are mere bunglers and consequently they are the cause of so many troubles in horses feet. I am greatly interested in these facts and I believe that a good talk with others interested will be a benefit to all concerned.

I believe that I have had about as much practical experience in the line of a rural mechanic as falls to the lot of most men. I served a six years course as an apprentice in a locomotive and car building shop and left there in 1869 with full journeyman's papers as a first class mechanic. I located here and started a shop on March 4, 1869 and I have owned and managed it since then employing from one to four men. I believe I know what a rural mechanic has to contend with. Who is to blame for the condition we find the rural smith in today? What inducement is there for a young man to spend from three to six years of his life learning the trade? What are his prospects when he has finished and received his journeyman's papers? What wages has he reason to expect? It is only a small amount over the common laborer. Now why is this and who is to blame? What has brought this condition about. First, the farmers are greatly to blame.

Does the farmer when he needs a new share for his plow go to the rural mechanic for it? No, he sends to the mail order house and buys a share with steel in it that he would not pay for were he to receive it from the rural mechanic. The chances are he or his neighbor have an anvil and a forge and will sharpen it himself or get his neighbor to do it for him. He will no doubt (if he is not going to town) let the rural smith point an old share for the farmer for the reason that neither he nor his neighbor can do it. Does the Kansas farmer let the rural mechanic shoe his horse? No, he will turn him out in the pasture and let him run until he gets all right. Does the farmer let the rural mechanic set his wagon or buggy tire? No, he or his neighbor have a tire shrinker and he will get the tire set there, and the chances are his wheels will look like an umbrella frame when they are done, but he has saved the price of setting the tire. If the farmer has any repairs to be made on his header or binder does he go to the rural mechanic to get it done? No, he gets an expert to come out from town (who by the way may not have worked at the machine business 30 days and there are many of this kind who do not know enough to work for the rural mechanic 2 days) from the agent and his charges are double what the rural mechanic would have charged.

When the farmer wants a set of cultivator shovels does he go to the rural mechanic? No, he will send to the mail order house for a set of low grade shovels and still wonder why one who is a good mechanic does not come there and open a shop.

The rural mechanic cannot live 365 days on 30 to 40 days work in the year. I hope to live to see the time when we will have a good class of rural mechanics. But that time will never come until the farmers change their attitude toward the mechanic. The cities stand ready to take all good mechanics and give them plenty of work at good prices 300 days in the year.

I presume this will stir up some of your readers but these are facts just the same as I have learned from ob-

servation. I have no reason to find fault with my patrons, but knowing the conditions as I do, I would not advise any young man to put in from three to six years of his life learning the blacksmith trade. T. H. TERRY. Saline County, Kans.

The National Irrigation Congress.

W. A. Beard, chairman of the executive committee of the National Irrigation Congress which is to meet at Sacramento, Cal., early in December in making a trip through the Central West stopped at Topeka to see Secretary Coburn, Governor Hoch, and others. During a call at THE KANSAS FARMER office, Mr. Beard discussed the purposes of the coming meeting.

"The programme for the next National Irrigation Congress, as outlined at the recent meeting of the executive committee in Chicago," Mr. Beard said, "will be broad and national in its character. The subjects that are to be discussed will relate not only to the development of the West, but also of the Middle West, East and all portions of the country.

"It is our purpose to make it a great national convention for the discussion of government conservation and development of the great natural resources of the country. It seems to be the proper time for such discussions because a point has been reached in national development where it is necessary to adopt policies and practices that will insure the comfort of the generations that are to come.

WHAT THE CONGRESS HAS DONE.

"Under the national irrigation laws a fund of approximately 40 million dollars has accumulated in the national treasury at Washington. This money is now being used for constructing irrigation works throughout the West. This fund is the result of the agitation kept up through a period of years by the annual sessions of the National Irrigation Congress.

"The importance of this work on the part of the national government will be appreciated when it is known that by means of it there has been added to the producing area of the United States about 3 millions acres of land reclaimed from the deserts.

"The National Irrigation Congress has been an important factor, also, in having passed the present national forestry laws, under which more than 100 million acres of the forests of the public domain have been reserved from entry for the purpose of protecting the watersheds of the country and conserving the timber supply.

"A most important phase of the next session of the irrigation congress," Mr. Beard continued, "will be the participation of the inland waterways commission. This body was appointed by the President to examine the navigable waterways of the country and make a report indicating a comprehensive plan for the conservation, development and control of the river systems of the country.

"The appointment of this commission was very important because it was a step in the direction of correlating the work that the national government is now doing for the improvement of the waterways of the country. I have been informed by members of the commission that they will consider every phase of the stream question, including the protection of watersheds, the construction of storage reservoirs, the maintenance and improvement of navigation and the protection of lowlands from overflow.

WATERWAYS REPRESENTATION.

"The five members of the internal waterways commission, who will attend the irrigation congress at Sacramento are: Senator Francis G. Newlands of Nevada; Congressman John H. Bankhead of Mississippi, F. H. Newell, director of the United States reclamation service; Gifford Pinchot, United States forester, and Dr. W. C. McGee, secretary of the commission, of Washington, D. C.

"All of the great national improvement organizations have been invited to send delegates to the National Irrigation Congress. They include the

National Drainage Association, National Rivers' and Harbors' Congress, and the National Forestry Association.

"We expect the irrigation congress to have a wide representation," said Mr. Beard. "Already we have been notified of the appointment of delegates in various parts of the country from the Atlantic coast to the Pacific coast. Among them will be men well known in politics, business and in finance.

"Vice President Fairbanks and two or three members of the President's cabinet have said they would attend. President Roosevelt has been invited and probably will attend. The governors of seven States have accepted invitations and many senators and congressmen. Manufacturing interests from various parts of the country will have a strong representation.

APPOINTED BY GOVERNORS.

"Delegates to the irrigation congress are appointed by the governors of States, mayors of the cities, and by different commercial and agricultural organizations. A wide representation has been solicited by the president and executive committee. Governor George E. Chamberlain of Oregon is president of the National Irrigation Congress. D. H. Anderson of Chicago is secretary.

"One of the interesting features of the irrigation congress at Sacramento will be an Inter-State exposition, showing the products of irrigated lands and reclaimed forests. Expensive prizes will be offered. The farmer having the best individual exhibit will be given a bull worth \$1,000.

"At this exposition there will be corn from Kansas; rice from Alabama; dates from Arizona, alfalfa from Montana; cantaloupes from Colorado; and peaches from Utah."

Iowa State Fair and Exposition.

With a record attendance of over 200,000 last year and a comfortable bank balance the management of the Iowa State Fair and Exposition is preparing for a repetition of the event at Des Moines commencing August 23. The premium offerings have been pushed up to about \$45,000, and a hundred thousand dollars is being expended in permanent improvements this year including a \$75,000 swine pavilion. There is already assurance that the live stock features of this fair will be up to the standard of recent years, which is very high. With 500 horses, 800 cattle, 3,000 hogs and all the sheep and poultry desired, Iowa gives a stock show that is worth going far to see. This year, as a novelty, the Hereford calf owned by the Iowa State college, winner of the grand champion prize for steers at the International will be exhibited. Among the draft horses will be seen the choicest of those owned by King Edward VII. All the new cattle breeds will be on hand.

A county contest in corn growing is a commendable novelty, wherein the counties of the State, through their local farm institutes, compete with each other in corn collection. It is a part of the great propaganda for better corn in the corn belt. Another of the interesting stock and corn judging contests by boys will be seen, and to this is added a domestic science contest for the girls, the goal being scholarships at the State college.

The machinery and vehicle departments of these Iowa expositions have been growing so fast that they overrun the entire field. Manufacturers have long recognized Iowa as the one place they are never to overlook. And so in every department of industry and in all branches of agriculture the Iowa fair and exposition is a complete thing.

Ample provision is made for the accommodation and comfort of all who attend these fairs. There is no finer camp ground in the country. The transportation facilities are the best. The buildings are most extensive.

Amusement features of this fair are never slighted. This year Pain is to be back again with a new and greater "Vesuvius" done in his best pyrotechnics for a night show. Vaudeville features are to go along with the race

program and at such other times as may be needed. The Innes military band of 50 pieces will supply the concert music in a wonderful program which opens with a patriotic novelty on Sunday afternoon. Knabenshue is to be back with a new double Airship guaranteed to carry one or two passengers.

Every year has witnessed an increase in the attendance at these Iowa fairs, keeping pace with the greater exhibits and more perfect program, and there is no reason to doubt that the record will be equally good this year. At any rate those in charge have laid the foundation well. J. C. Simpson, of Des Moines, continues as the secretary and in charge.

Official Report on Crop Conditions on July 1, 1907.

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 show the acreage of corn planted to be about 98,099,000 acres, an increase of about 1,361,000 acres, or 1.4 per cent, as compared with the final estimate of the acreage planted last year. The average condition of the growing crop on July 1, was 80.2, as compared with 87.5 on July 1, 1906, 87.3 on July 1, 1905, and a ten-year average of 85.9.

The average condition of winter wheat on July 1 was 78.3, as compared with 77.4 last month, 85.6 on July 1, 1906, 82.7 on July 1, 1905, and a ten-year average of 80.4.

The average condition of spring wheat on July 1 was 87.2, as compared with 88.7 last month, 91.4 on July 1, 1906, 91.0 on July 1, 1905, and a ten-year average of 88.0.

The average condition on July 1 of spring and winter wheat combined was 81.6, as compared with 87.8 on July 1, 1906 and 85.8 on July 1, 1905.

The amount of wheat remaining in the hands of farmers on July 1 is estimated at about 54,853,000 bushels, equivalent to about 7.5 per cent of the crop of last year.

The average condition of the oat crop on July 1 was 81.0, as compared with 81.6 last month, 84.0 on July 1, 1906, 92.1 on July 1, 1905, and a ten-year average of 88.2.

The average condition of barley on July 1 was 84.4, against 84.9 one month ago, 92.5 on July 1, 1906, 91.5 on July 1, 1905, and a ten-year average of 88.7.

The average condition of winter rye on July 1 was 89.7, as compared with 91.3 on July 1, 1906, 92.7 on July 1, 1905, and a ten-year average of 90.9.

The acreage of potatoes, excluding sweet potatoes, is more than that of last year by about 54,000 acres, or 1.8 per cent. The average condition of July 1 was 90.2, as compared with 91.5 on July 1, 1906, 91.2 on July 1, 1905, and a ten-year average of 91.3.

The acreage of tobacco is less than that of last year by about 34,000 acres, or 5.6 per cent. The average condition on July 1 was 81.3, against 86.7 on July 1, 1906, and 87.4 on July 1, 1905.

Peculiar.

EDITOR KANSAS FARMER: I find a peculiar phenomenon in my corn field, in the shape of an ellipse about 50 by 30 feet. All the corn and burs and every living weed was killed. The recent rains passed to the southeast and that is the direction the corn is pressed over and also the direction of the long axis of the ellipse. The dead stalks are closely pressed to the ground, but yet the ground is undisturbed. Nothing living there now. No sign of any insects of course. Shall we say it was done by the storms somehow? M. T. MAUDLIN.

Osage County, Okla.

There are still several localities in Kansas and Oklahoma where THE KANSAS FARMER does not have regular resident representatives. The pay is good and sure. The work is pleasant and profitable. Write us about it.

Miscellany

Governor Cummins on the Tariff.

(Continued from last week.)
COMPETITION.

With respect to some protected commodities, and with respect to all the agricultural products, there is the liveliest, keenest, most persistent competition, and the commodities are sold by the original producers, at least, at a low American price. Protection with home competition makes a low market; protection without competition makes a high market. Let us not be deluded with the artful phrase that a low market in which to buy means a low market in which to sell. It is common knowledge that the steel rail mills of this country until the organization of the international steel rail pool sold their product regularly in other countries at an average of \$6 per ton less than their price in their own country, and it is well known that practically all forms of iron and steel have been sold by our manufacturers abroad much cheaper than they have been sold at home. The output of these mills sold in our own country is enormous, by reason of excessive duties, costs our people millions upon millions more than it should cost them. This has been the contribution which the consumers of iron and steel in the United States have made, all above and beyond a fair profit, to the folly of that statemanship which is lauded by the standpatter as the perfection of human reason, and the most praiseworthy example of patriotic intelligence. If we were to banish the idea of reciprocity from the memory of men, and expunge the word from the language of the race, there would still be an imperative demand for the revision of the tariff schedules.

I have used the iron and steel schedule simply as an illustration. There are many others just as indefensible, but I must pass them with no other reference than an appeal for their intelligent and patriotic investigation. Now to the conclusion of this phase of the subject.

If there still remained active and effective competition in all the protected commodities, and if the demand at times did not outrun the capacity for supply, it would make little difference whether the duty on steel rails, for instance, was \$7.84 per ton, or whether it was \$100 per ton, inasmuch as competition and capacity for supply would always hold the commodity at a fair price. But you and I know that, with respect to a great many of the protected articles, competition as an efficient force in fixing prices has been destroyed. I am not railing at the trust or combination; I am simply stating a fact known to every intelligent observer. The foreign competition is barred out, and the home producer is permitted to raise his price, if he thinks the business will stand it, to the point at which the foreigner can enter.

DISTRIBUTION.

We have mastered the science of production to a degree never before known, but if we would be just, as well as great, it is as necessary that we master the science of distribution as perfectly as we have that of production. Under the industrial conditions which have prevailed for many years in the United States, and which still prevail, the result of excessive duties is to make the buyer and consumer pay more than a fair and honest price, and to give to the protected producer more than a fair and honest profit. Even, therefore, if reciprocity were an abandoned and forgotten doctrine, and we cared nothing about our trade with foreign nations, we ought, in justice to our own people, to keep our import duties as near the point of honest protection as possible. I know that we have been extraordinarily prosperous, and that the buyers and consumers of unduly protected commodities have been able to pay unjust prices for them without impoverishment; but this does not palliate the wrong that is perpetrated upon them,

and the sense of injustice which they feel will, in the end, lead them to such reprisals as may destroy the system, instead of ridding it of its vicious excesses.

DOUGHT NOT TO ENDURE IT.

It is always difficult to preserve the true relation of things, but I try earnestly to avoid exaggerated climaxes intended merely to arouse prejudice. I would not have you think that I believe the country is bound for shipwreck because the Government, by its failure to properly adjust import duties, allows one class of men to take an excessive profit from another class; but because we can endure it is no reason why we should endure it. If the fair price of a protected article is \$1, and the Government should declare that the buyer must pay \$1.25 for it, the nation would not be destroyed, and prosperity might still exist; but confidence in the justice of our laws would be impaired, and in the end we would pay a heavy penalty for the injustice. If it were conceded that upon a given commodity the fair, compensatory railroad rate was \$5 per ton, and the officers of the Government should fix it at \$6 per ton, it is not likely that they would continue a great length of time in the public service; and yet it is quite possible, under such unfair rate, for the people to increase the volume of their business immensely, and to grow in riches. Even so, the people can bear the burden of excessive tariffs, and they have borne it with marvelous patience, but they will not bear it in silence, and, little by little, they are coming nearer to their own. The way is beset by many difficulties, but they will be overcome, and it will not be long before a Congress will convene that will be as swift to give them the relief to which they are entitled as the Congresses of the last few years have been resolute in denying it.

I do not insist that a reduction in some of the tariff schedules is the most vital and important reform of the hour, but I do insist that it is one of the grave questions which we must confront, and so far as I am concerned, whether it be popular or unpopular, when I see a wrong I intend to denounce it, be it great or small, for when the mass of the people feel that the Government is persistently and consciously unjust, a fire has been lighted that will not be easy to extinguish.

GHOSTS.

The only reason that I have ever heard given against a revision of the schedules to bring them into harmony with existing conditions is that the commercial world will become frightened, that production will be suspended, and that a period of adversity will follow. I agree that if Congress were to enter upon a revision of the tariff, some apprehension would be created, but I deny that it would have any substantial effect upon business if that Congress was known to be dominated by men who believed in the doctrine of protection. It is not possible that the sober and steady managers of industry and commerce would have any doubt but that the outcome of the revision would be full, complete protection to every American producer. For the honor of my country, I am not willing to admit that we are such senseless slaves of humor and passion that we can not safely remedy a wrong clearly perceived and universally admitted.

RECIPROCITY.

I turn now to reciprocity, with no intention of giving its history, and with no thought of considering it in the abstract; nor do I propose to dwell upon its efficiency in enlarging the markets for our products generally. As you all know, agriculture holds the first rank in the material interests of the United States, and it is not probable that it will ever be surpassed by any other interest that will occupy our energies. If what I have said be true of the country at large, it is true in still more marked proportion of the West. Iowa contributes, annually, agricultural products of the value of nearly \$700,000,000. A very large part of this production must be consumed elsewhere. If we had sufficient mar-

kets to take the increase, we could easily double the agricultural output in five years. Americans eat more, per capita, than the people of any other country, because they eat all they want, but still they can not and do not eat what we now, in the infancy of agriculture, produce. It is, therefore, absolutely essential to the welfare of those who occupy and till the soil that some portion of our products be sold abroad, and the duty of the Government in protecting us in these foreign markets is just as sacred, just as imperative, as its duty to protect manufacturers in the domestic markets. The proposition I have just stated you must admit, if you are willing to concede that the flag of the Republic flies for us as well as for you. Notwithstanding this fundamental truth, and notwithstanding the energetic and persistent efforts of nearly every nation in Europe, save Great Britain, to drive the agricultural exports of the United States from their markets, it is a humiliating fact that, with the exception of the temporary arrangement with Germany made by the President, and really in defiance of the wish of Congress, and a most inadequate provision with two or three nations under Section 3 of the Dingley act, there is not a line or a letter, in any law or treaty, that has for its purpose the protection of the American farmer in the countries in which he must sell his surplus product. Whatever may be true of the future, at the present time he must look to Europe for the consumption of his live stock and cereals that are not consumed in the United States. England has not as yet attempted to shut him out. France, more than ten years ago, practically closed her doors to the farmer of the North, by imposing upon his exports a maximum tariff, and giving to his competitors in other countries a minimum tariff. The result has been that we are now exporting to France substantially no part of the surplus which may be fairly termed the products of Northern farms.

When the Dingley law was enacted, in 1897, it contained a provision that within the two years following, reciprocal treaties might be negotiated, covering all dutiable articles, limiting the reduction of our duties to twenty per cent. It is well known, and has been openly stated in Congress by men who helped to formulate the Dingley law, that its duties were, in many instances, raised intentionally beyond the necessary point, in order to give opportunity for the operation of such treaties. William McKinley—as fervent a friend of protection as ever raised a voice in its behalf, appointed John A. Kasson, an eminent statesman, to negotiate treaties under this section. Among other things that Kasson did was to negotiate a treaty with France. The treaty provided for the admission into France of our products, under the minimum tariff, except horses, butter, lucerne, cloverseed, fodder, cast iron, skins and hides (prepared), boots and shoes and parts of same, belts and cords, and other leather articles manufactured for machinery, dynamos, machine tools, dynamo conductors and parts, arc lamps, known as regulators, sugar, chicory roots, green or dried, eggs, cheese, honey, porcelain, cardboard, rough in sheets.

It provided for the admission into our country from France of 126 articles out of 705 in our schedules, upon a reduction of the Dingley duties of from 5 to 20 per cent, the average reduction being not quite 7 per cent. There were two commodities, namely, cotton knit goods and cheap jewelry, upon which, as I remember it, the reduction was 20 per cent, but there still remained a duty of 50 per cent ad valorem. The average duty that remained upon the entire list of 126 items was more than 57 per cent.

This treaty would have opened France to the agricultural exports of the United States upon fair and even terms with the exporters from other countries. We needed the market as imperatively as ever Pennsylvania needed protection for its iron and steel. As it seems to me, there was

How Good Food may Turn to Poison.

DECAY is not digestion, you know, even when it takes place in the stomach.

Food decayed in the body after being eaten is as dangerous to health as food decayed before being eaten.

Food nourishes or poisons, just according to how long it remains in the Bowels undigested.

* * *

Most of the Digestion occurs in the thirty feet of intestines.

They are lined with a set of little mouths, that squeeze Digestive Juices into the Food eaten.

The intestines are also lined with millions of little suction pumps, that draw the Nutrient from Food, as it passes them in going through.

But, when the Bowel-Muscles are weak, the Food moves too slowly to stimulate the little Gastric Mouths and there is no flow or too little flow of Digestive Juice, to change the food into nourishment.

Then, the food decays in the Bowels, and the little suction pumps draw Poison from the decayed Food, into the blood, instead of the Nutrition they should have drawn.

* * *

Now, Cascarets contain the only combination of drugs that Stimulates these Muscles of the Bowels and Intestines just as a Cold Bath, or open-air Exercise, stimulates a Lazy Man.

Cascarets therefore act like Exercise.

They produce the same sort of Natural result that a Six Mile walk in the country would produce without any injurious Chemical effect.

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no possibility that the concessions given to France could have endangered any legitimate enterprise; and yet that treaty negotiated by Kasson and approved and recommended by McKinley, was permitted to lie in the archives of the Senate until the dust of two years covered it, and the limitation of the statute extinguished even the hope of resurrection.

FOR THE GOOD OF ALL.

Tariff laws are intended for the common good. There always will be the partisanship of locality, but if you have an interest in the welfare of your country, I want you to answer, not to me but to your own consciences, whether our admission into France under the terms of this treaty would not have promoted the general good more faithfully than the preservation of the useless and unnecessary excess of duties upon the 126 articles to which I have referred. If any man had risen in Congress and made it clear that these millions who labor upon our farms were not entitled to the relief which the treaty gave them, they would have accepted the conclusion, for they are loyal and patriotic. But no man did this. The treaty was assassinated by cowardly silence, under the inspiration of a sentiment whose watchword is "stand pat; let well enough alone."

OUR BEST CUSTOMERS.

Aside from England, Germany is the most valuable market for the American farmer. A few years ago, a movement began there to prevent the sale of our products within the borders of the empire. While I believe the movement is an unwise one, viewed from the standpoint of the German people, I have nothing to do with that phase of the subject. In the early stages of the effort, burdensome and unnecessary restrictions were put upon our exports. The exportation of live animals was forbidden upon the pretense of danger from disease, although it was and is well known that American cattle are less infected with disease than the cattle which Germany regularly takes from other countries. After this vexatious system had been perfected, the empire adopted a new tariff law, which, as I remember it, went into effect on March 1, 1906. This tariff law is composed of maximum and minimum duties, and inasmuch as there was no treaty to the contrary, the United States would at once have fallen under the maximum duties. The operation of this law would have finished our business relations, in agricultural products, with Germany, and would have brought untold disaster upon our people. Congress did nothing, for it was still animated by that maxim of reaction and decay; but fortunately we had a President who understood that the conditions of one year can not always be met by the wisdom of a former year, and we had a Secretary of State who refused to believe that it was necessary to sacrifice the farmers of the country in order to preserve inviolable every duty in the Dingley tariff. And these men succeeded, first, in postponing the blow for a year, hoping that through the action of Congress before the expiration of the period some permanent adjustment could be made. The hope was not realized, and now these same men have, under another section of the Dingley law, entered into an agreement with Germany to continue for another year, under which, giving to Germany some concessions which do not hurt us in any degree, we are able to go on, halting and lame, it is true, into the German markets. Unless, however, Congress does something before this provisional adjustment expires, we must then face the loss of our trade in agricultural products with Germany.

THE WORLD OUR MARKET.

I have referred to this history, not so much for the purpose of convincing you that an injustice is being done, for that is so palpable that it needs no argument to make the wrong apparent. I do so rather to show you that reciprocity and reciprocal trade arrangements are not merely high-sounding phrases. With the proper

spirit prevailing here, it is entirely practicable to care for our people abroad just as completely, through reciprocity, as it has been to care for them at home through protection. We must deal with other nations. We are no longer insular. We sit in the council of powers, and help to determine the destinies of the whole earth. We must assume the responsibilities which grow out of this relation with other peoples. We could not shirk them if we would, and we would not if we could.

MAXIMUM AND MINIMUM TARIFFS.

Different views are held with respect to the form which reciprocity should take. In one thing, however, we are, I believe, united. We can not depend upon the legislation confirmation of special treaties with each nation with which an arrangement is desirable. My own view is that we should have a minimum and maximum tariff, the minimum tariff to be made up of duties fairly protective, and maximum tariff that could be imposed upon any country that refuses to admit our exports upon reasonable terms; and the Executive Department of the United States should have the power to determine, from time to time, whether the minimum or the maximum tariff should be laid upon the imports from the several nations of the world. It is obvious, as I look at it, that the schedules in these dual tariffs, must be changed from period to period, not for light or trivial reasons, but whenever conditions require changes. As I suggested earlier in this address, we ought to create and cultivate the feeling that these adjustments of the schedules should be for business reasons, and not for political advantage. Therefore we should have a tariff commission, constantly studying the subject, and hence at all times prepared to advise Congress with respect to the facts, and we should have a Congress that will take these facts, in a fair and impartial spirit, and deal with them for the common good.

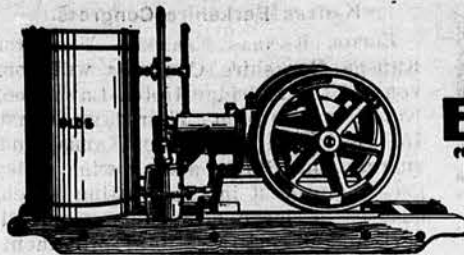
I recognize that I have passed over but a little part of the great field that I have entered. My purpose has not been so much to bring information, for I doubt not that you are all students of economics, and that your minds are stored with a fund of knowledge which immeasurably surpasses my inadequate researches. My purpose has rather been to awaken interest, and to make you feel that the time has come to do something; that the sense of justice which fills all American hearts, and the continued prosperity of the favored land of Providence, demand a higher view than has hitherto prevailed.

The Shawnee Alfalfa Club.

Owing to the fact that the farmers are so busy now and because most of them must come to town on Saturday afternoon, anyway it has been decided to hold the second monthly meeting of the Shawnee Alfalfa Club at the Commercial Club hall in Topeka, instead of at the Prospect Farm of H. W. McAfee as announced. This meeting will be called to order by President Bradford Miller at 2 o'clock P. M. on Saturday, July 27, when it is expected that a large number of farmers and particularly "city farmers" will be present. Alfalfa is the most valuable plant known to modern agriculture and it will grow in Eastern Kansas. It has made Western Kansas wealthy and it can do much to improve the agriculture of the Eastern end of the State. Everybody is invited to come and tell what he knows about alfalfa.

New Advertisers.

J. A. Kauffman, White Rocks. Medford Commercial Club, Rogue River Valley.
R. J. Linscott, Jersey cattle. Tyra Montgomery, nursery for sale. Central Kansas Business College, catalogue.
Chas. E. Sutton, Berkshire sale. T. F. Guthrie, Berkshire sale. S. H. Pitcher, a nice farm. Rocky Asphalt Roofing Co., roofing. Human Horse Collar Co., horse collars.
Boise Commercial Club, Idaho views. Spaulding Commercial College, college.
Will Killough, Scotch collies. Clifton George, live bee land. German Kall Works, pot ash. Ungles Hoggette Co., preventive and cure.
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We have a liberal proposition to make to you, besides furnishing you the best engine made.

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We can furnish you our Type A engine set up on skids if desired, 3 to 8 h. p., ready to run when you get it—does not have to be set up—no piping to connect, no foundation to build—simply fill with gasoline (or distillate) throw on the switch, turn the wheel and it goes.

Easy to start winter or summer. The cheapest of all engines for farm and stationary power. Has removable water jacket, all latest improvements, and has been adopted by the United States Government. Send for catalog of 3 to 50 h. p. engines, and be sure you take advantage of our proposition and save money.

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Stong's Stock Feed promotes health and vigor, and will cure mange, scurf and worms in hogs, cattle and sheep. Is being used by some of the largest stock raisers in the country. Three days' feed for one cent. 25 lbs. \$5.00, 50 lbs. \$7.50, 100 lbs. \$15.00, f. o. b. St. Joseph, Mo.

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I have sold my farm, therefore have 300 smooth Delaine ewes for sale by 15th or 20th of August. Also 300 half-blood Hampshire lambs, as large as their mother. These are fine, early, big lambs. Will sell 10 pedigreed Hampshire bucks at low price. Come and see them.

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L. K. LEWIS, Kansas, Nebraska and Oklahoma

PURE-BRED STOCK SALES.

Shorthorns.
Oct. 22—A. C. Shallenberger and Thos. Andrews, Alma, Neb.
Nov. 5—E. D. Ludwig, Sabetha, Kans.
November 6 and 7—Purdy Bros., Kansas City.

Herefords.
February 25, 26, 27—C. A. Stannard, Emporia, Kas.
February 25-28—C. A. Stannard and others, Kansas City, Mo.

Aberdeen-Angus.
July 10.—Thos. J. Anderson, Gas City, Kans.

Poland-Chinas.
September 19—J. T. Hamilton, So. Haven, Kans.
October 2—M. Bradford & Son, Rosendale, Mo.
October 7—T. S. Wilson, Hume, Mo.
October 8—Homer Gruner, Spring Hill, Kans.
Oct. 10.—Dr. B. P. Smith and H. J. Reidley, Millvale, Kans.
October 12—D. C. Stanyon, Independence, Mo.
October 12—Sam Rice, Independence, Mo.
October 14—E. E. Axline, Oak Grove, Mo.
Oct. 15.—John Blain, Pawnee City, Neb.
October 15—Bernham & Blackwell, Fayette, Mo.
Oct. 16.—Geo. Hull, Burdard, Neb.
October 17—Charles W. Dingman, Clay Center, Kans.

October 17—J. T. Ellerbeck, Beatrice, Neb.
October 18—C. A. Lewis, Beatrice, Neb.
October 19—Geo. Falk, Richmond, Mo.
October 21—F. D. Winn, Randolph, Mo.
October 22—F. A. Dawley, Wadsworth, Kans.
October 22—W. N. Meesick & Son, Piedmont, Kas.
October 22—Jas. Malna, Oskaloosa, Kans.
October 22—John M. Coats, Liberty, Mo.
October 22—A. P. Wright, Valley Center, Kans.
Oct. 24—Geo. W. Crooks, Clay Center, Kans.
October 24—G. M. Hebbard, Peck, Kans.
October 24—J. R. Triggs, Dawson, Neb.
October 25—W. J. Honneyman, Madison, Kans.
Oct. 25.—H. G. Chapman, Dubois, Neb.
October 25—Martha Lewis, Atterton, Mo.
October 26—A. B. Hoffman, Resaca, Kans.
Oct. 26.—L. J. Boner, Lenora, Kans.
October 28—Howard Reed, Frankfort, Kans.
October 28—Bollin & Aaron, Leavenworth, Kans.
October 28—Leon Calhoun, Potter, Kans.
October 30—H. B. Walters, Wayne, Kans.
October 30—The Big 3, Centerville, Kans.
October 31—L. C. Caldwell, Moran, Kans.
November 1—Harry E. Lunt, Burden, Kans.
November 2—Thos. F. Walker, Alexandria, Neb.
November 2—Dietrich & Spaulding, Richmond, Kans.

November 4—C. S. Nevius, Chiles, Kans.
November 5—Lemon Ford, Minneapolis, Kans.
November 6—E. L. Calvin, Bolcourt, Kans.
November 6—W. R. Crowther, Golden City, Mo.
November 7—T. P. Sheehy, Hume, Mo.
November 8—D. E. Crutcher, Drexel, Mo.
November 8—U. S. Ison, Butler, Mo.
November 9—H. H. Harshaw, Butler, Mo.
November 11—Adams & Loran, Moline, Kans.
November 12—W. N. Meesick & Son, Piedmont, Kans.
November 12—I. E. Knox and Wm. Knox, Blackwell, Okla.
November 12—J. C. Larrimer, Wichita, Kans.
Nov. 13—W. H. Bullen, Belleville, Kans.
November 14—C. W. Dingman, Clay Center, Kas.
November 15—C. G. Mills, Pleasant Hill, Mo.
November 15—J. J. Ward, Belleville, Kans.
November 15—A. & P. Schmitt, Alma, Kans.
November 15—E. E. Tennant, New Hampton, Mo.
November 20—Bert Wise, Reserve, Kans.
November 20—R. E. Maupin, Pattonsburg, Mo.
November 21—F. D. Fulkerson, Brimson, Mo.
November 21—Everett Hayes, Hiawatha, Kans.
November 22—C. E. Hedges, Garden City, Mo.
November 23—F. F. Oreley, Oregon, Mo.
December 4—Geo. Null, Odessa, Mo.
January 10—Wm. Wingate, Trenton, Mo.
January 23—H. B. Walters, Wayne, Kans.
January 29—Dr. B. P. Smith and H. J. Reickley, Miltonvale, Kans.
February 3—C. E. Tennant, New Hampton, Mo.
February 6—R. E. Maupin, Pattonsburg, Mo.
February 7—F. D. Fulkerson, Brimson, Mo.
February 8—Thos. F. Walker, Alexandria, Neb.
Feb. 25—L. D. Arnold, Abilene, Kans.
Feb. 26—W. H. Bullen, Belleville, Kans.

Duroc-Jerseys.
Oct. 1—Grant Chapin, Greene, Kans.
Oct. 1—W. H. Halth, Tecumseh, Neb.
Oct. 2—W. M. Putman, Tecumseh, Neb.
Oct. 3—Elmer Lamb, Tecumseh, Neb.
Oct. 4—R. F. Miner, Tecumseh, Neb.
Oct. 5—F. C. Crocker, Filley, Neb.
Oct. 15—Jno. W. Jones, Concordia, Kans.
October 16, 1907—Ford Sikes, Auburn, Nebraska
Oct. 16—G. W. Colwell, Summerfield, Kans.
October 22—J. E. Joines, Clyde, Kan.
Oct. 30—Rathbun & Rathbun, Downs, Kans.
Oct. 31—D. O. Bancroft, Downs, Kans.
Nov. 1—R. G. Sollenbarger, Woodston, Kans.
November 2—Jos. Lynch, Independence, Mo.
Nov. 5—J. C. Logan, Havensville, Kans.
November 15—U. S. Byrne, Agency, Mo.
November 26—Geo. Hannon, Olathe, Kans.
November 26—Marshall Bros. & Stodder, Burden, Kans.
January 21—Jas. L. Cook, Marysville, Kans.
Jan. 22—E. H. Erickson, Olsburg, Kans.
Jan. 23—Samuelson Bros., Bala, Kans., bred sow sale.
Jan. 23—Grant Chapin, Greene, Kans.
February 4—Chester Thomas, Waterville, Kans.
February 5—C. G. Steele, Barnes, Kans.
February 6—J. F. Chandler, Frankfort, Kans.
February 7—Joseph Reust, Frankfort, Kans.
Feb. 18—John W. Jones, Concordia, Kans.
Feb. 19—T. P. Teagarden, Wayne, Kans.
Feb. 20—E. E. Axline and Knapp Bros., Independence, Mo.
Feb. 27—D. O. Bancroft, Downs, Kans.
Feb. 28—Rathbun & Rathbun, Downs, Kans.
Feb. 29—R. G. Sollenbarger, Woodston, Kans.

O. I. C.
October 17—Frank Walters, Rockport, Mo.
Berkshires.
August 15—Black Robin Hood Berkshires at Kansas City, T. F. Guthrie, Saffordville, Kans.
August 16—Black Robin Hood Berkshires at Lawrence, Kans., Chas. E. Sutton, Lawrence, Kans.

Percherons.
Feb. 22—D. E. Reber, Morrill, Kans.
February 28—R. J. Ream & Co., Kansas City, Mo.
March 12—R. J. Ream & Co., Denver, Col.

Jacks and Jennets.
March 3—Limestone Valley Jacks and Jennets, L. M. Monsees & Sons, Smithton, Mo.

Combination Sale.
February 18, 19, 20, 21—Percheron, Shorthorns; Herefords, Poland-Chinas at Wichita. J. C. Robinson, Towanda, Kans.

How would you like to get paid for calling upon your neighbors? THE KANSAS FARMER wants a regular representative and is ready to pay good wages for good work. Write us.

Kansas Berkshire Congress.

EDITOR KANSAS FARMER:—The first Kansas Berkshire Congress will convene at the Eldridge Hotel, Lawrence, Kans., at 8.30 p. m., Thursday, August 15. Berkshire breeders of Kansas and surrounding States are showing a degree of interest in the meeting which assures a large attendance from all parts of the country. Many prominent breeders residing in different States are expected. The following-named gentlemen have been invited to attend and address the meeting: A. J. Lovjoy, W. S. Corbin, Col. Charles F. Mills, Homer Waters, I. L. Weirick, Wm. Osburn, L. E. Frost, and G. G. Council, Illinois; N. H. Gentry, June K. King, W. F. Corbin, C. A. McCue, Dr. Geo. M. Laughlin, and T. A. Harris, Missouri; W. H. Coffman, West Va.; F. W. Morgan, Wisconsin; J. W. Hibbard, Michigan; H. U. Hainline, Iowa; F. A. Scherzinger, J. K. Honeywell, and W. R. Holt, Nebraska; H. T. Morgan, Pennsylvania; Geo. W. Jessup and E. J. Barker, Indiana; J. D. B. DeBow, J. M. Overton, and Reuben Gentry, Tennessee; Hon. F. D. Coburn, E. D. King, G. Willems, D. A. Page, T. F. Guthrie, George McAdams, J. P. Sands, C. G. Nash, E. W. Melville, and C. A. Stannard, Kansas.

The management of the Kansas Berkshire Association is composed of the most active and aggressive Berkshire breeders in the State, namely:

President, Charles E. Sutton, Lawrence; vice-president, C. H. Manwaring, Lawrence; secretary, George W. Berry, Lawrence; treasurer, C. G. Nash, Eskridge. Executive committee—David G. Page, Topeka; C. A. Stannard, Emporia; T. F. Guthrie, Strong City; E. D. King, Burlington; J. P. Sands, Walton.

The executive committee is composed of number one men who will surely push the breed to the front. The large number of prominent herds of Berkshires owned by Kansas breeders are attracting attention throughout the country. Many of the best in other States are founded on Kansas breeding and headed by Kansas-bred sires. Kansas breeders are alert and ever ready to enhance the welfare and popularity of the Berkshire. In this connection the following by one of the most progressive young breeders represents Kansas spirit: "Some movement should be inaugurated among our breeders to keep Kansas' best breeding stock in the State and bring in better stock from outside—if they have it. I do not believe in keeping dams on the farm unless they raise litters of the best quality, or in other words, I try to keep in mind the general utility. We must not worship pedigrees, for, as you are aware, there is a whole army of breeders who have landed on the rocks through failure to keep in mind the ultimate object of the live stock they were breeding and selling. An outstanding individual backed up by a good pedigree without individuality is a snare and a delusion."

The future of the Berkshire in Kansas as well as other States depends on the active effort and earnest cooperation of the breeders who rally around the Berkshire standard. The hope is entertained that of the 300 owners of registered Berkshires who reside in Kansas a large number will attend the Kansas Berkshire Congress at Lawrence, August 15 and 16. Those who attend the meeting are assured a most enjoyable time with the large number of breeders who will be present.

GEO. W. BERRY, Secretary.
R. F. D. No. 4, Lawrence, Kans.

A Class for Short Fed Cattle at the International of 1907.

The International Live-Stock Exposition, being desirous of determining and demonstrating the best and most economical method of feeding cattle, has created the following classes, to be known as "Short Fed Specials."

Cattle to be eligible for entry must not have been fed grain previous to the time application is made, but after that time the owner may feed the cattle such feeds, including grain, as in his judgment will accomplish the

greatest results within the given feeding period, i. e., from the date application is made for entry to the opening day of the Exposition.

The following rule governs this contest:

(a) Application for entry must be made between the 1st and 15th of August. (b) Cattle must be owned by exhibitor at the time application is made. (c) Cattle must not have been fed grain previous to the time application is made; they may, however, have been run in stalk fields previous to this time. (d) Eighteen cattle may be fitted, but only fifteen of this number can be shown as one carload. (e) Cattle must be weighed, 12 hours in dry lots off feed and water, on day application is made and a record must be kept of the weight of these animals. The cattle to be judged will again be weighed, under similar conditions, at 10 A. M., Monday December 2. (f) Sworn statement by the owner and two other reputable persons that cattle had not been fed grain previous to time application, must be sent to the General Superintendent of the Exposition with said application. (g) A record of the kind, weight and cost of feeds consumed during the feeding period must be kept by the owner, who will deliver this information, together with the weight of the animals at time of entry, to the Superintendent of the carload cattle division, on the opening day of the Exposition. (Blanks for all of the purposes will be furnished on request to the General Superintendent.) (h) In judging these classes, quality and finish will count sixty per cent; gain forty per cent.

The following prizes will be offered for these classes:

The following prizes will be offered for these classes: Carload of 15 head, 1 year and under 2, first prize, \$100, second prize \$50, third prize \$25; carload of 15 head, 2 years and under 3, first prize \$100, second prize \$50, third prize \$25; champion carload of these classes, cup.

Linscott's Pure-bred Jersey Cattle.

Ralph J. Linscott of Holton, Kans., who breeds pure-bred Jersey cattle starts a card in this issue of THE KANSAS FARMER. This herd was established in 1878 and is one of the largest and best in the West. The producing females number over 60 at the present time, and are descendants from such famous cows of the breed as Toltec's Fancy, testing over 18 per cent and making churned butter 27 pounds, 5½ oz. from 130 pounds, 4 oz. of milk. Ethelred 2d, testing over 17 per cent and making 30 pounds, 15 oz. of butter from 155 pounds 11 oz. of milk. Landseer's Fancy, testing over 16 per cent and making 29 pounds ¼ oz. butter from 152 pounds 8 oz. of milk, and a yearly record of churned butter of 936 pounds 14½ oz. Conan of Riverside, testing 12 per cent and making 34 pounds 3 oz. of churned butter from 262 pounds 8 oz. of milk. Conan, testing over 9 per cent and making 22 pounds 2½ oz. of butter from 205 pounds 7 oz. of milk, and dam of six tested daughters. Blisson's Belle, testing over 9 per cent and making 28 pounds 10 oz. in seven days, and a yearly record of churned butter of 1,028 pounds 15½ oz. and others that are equally good. Individually these cows are the best the writer has seen; with few exceptions, in color they are a solid fawn, and a large part of them are 2-year-olds past, with their first calf. They are remarkably well grown out and are making records as butter producers.

L's Coozassie was bred and is owned in this herd. She holds the champion milk record of the United States for 1906, 396 pounds in 7 days; 1,491 pounds milk in 30 days; 91 pounds, 8 oz. of butter. The butter record for three generations being 14 pounds 3 oz.; 15 pounds 2 oz., and 22 pounds 7 oz.

The spring crop of calves numbers 20, three-fourths of which are heifers, they are a fine even lot, and are uniformly in color as solid fawn. Tommy Tormentor 67233 heads the herd, and amply justifies the claim of his owner as to being the greatest Jersey bull in Kansas. He was dropped April 5, 1903. Bred by M. M. Gardner, Nashville, Tenn. Color, dark fawn, some little white under belly and on feet, white switch, black tongue. His dam one of Tennessee's greatest cows, Tomassie 75875, test first calf 14 pounds 12½ oz., second calf 17 pounds 5 oz. made by Geo. Campbell Brown, Spring Hill, Tenn. Test at 4 years old 14 days of 41 pounds 8½ oz. from 582 pounds 2 oz. milk, made by M. M. Gardner. Milked 48 pounds daily when fresh. Tommy Tormentor must be seen to be appreciated. He is very aristocratic in his carriage. Has large sparkling eyes, broad forehead, beautiful neck, strong straight back, best of withers, very broad hips, extra length from hips to sitting of tail. Tail long, thin with splendid switch, very neat in bone, skin very rich, thin, soft and as mellow as a moles, grand wedge shaped body of great depth and width, large beautifully placed rudimentaries. He is a line bred "Tormentor" tracing to Imported Tormentor through both sire and dam; his sire was Denises Ida Tormentor 51995, by Conans Tormentor 22280 and he by Imp. Tor-

Horse Owners! Use

GOMBAULT'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 Blisters from Horses and Cattle. SUPERSEDES ALL CAUSTERY OR FIRING. Impossible to produce scar or blister. 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.

DEATH TO DEATH
NEWTON'S HEAVE AND COUGH CURE
VETERINARY SPECIFIC
15 years' use. One to two cans will cure Heaves. \$1.50 per can. Of dealers, or express prepaid. Send for booklet. The Newton Remedy Co., Toledo, O.

SORE SHOULDERS

I would like very much to personally meet every reader of this paper who owns any horses that have sore shoulders and tell him about Security Galls. This is impossible so I am going to tell you through the paper. You and I both know that horses working with sore shoulders are in pain, and that they can't do as much work without running down as when they are free from pain. I also know perfectly well that Security Galls will cure these shoulders, but you do not know it. If you did you would buy a box of your dealer at once and cure them up, for you have no doubt often wished that you knew of something you could rely on. You can rely absolutely on Security Galls. It will do its work every time, or if you prefer to try it first I will mail you a sample can free. Just write for it—it will go to you on first mail. Also I want to tell you that Security Antiseptic Healer is as good for barb wire cuts as Security Galls. It is for harness galls. Dealers carry them in 25c, 50c and \$1.00 sizes. Use them for your needs; I guarantee you perfect satisfaction.
Frank B. Dennie, President.
SECURITY REMEDY CO. Minneapolis, Minn.

Fli-Kil

is a safe, sure, efficient non-offensive remedy for
Keeping Flies Off Cows, Horses, Mules and all Live Stock.
Indispensable in dairy and stable. Saves annoyance and irritation. Cows rest easy, digest and secrete their food better and produce more milk and butter. It makes milking easy and safe; protects teams. Will not gum the hair. Easily and cheaply applied with sprayer. Buy now; use before the animals run down. At dealers. Quart 40c; ½ gal. 60c; gal. \$1. Trial gallon direct, express paid, \$1.25. Don't take a substitute. Illustrated book free. Address:
Moore Chem. & Mfg. Co.,
Dr. H. J. Whittier, Pres't.
1801 Genesee Street, Kansas City, Mo.

No More Sore Necks or Shoulders

IF YOU USE THE WHIPPLE HUMANE HORSE COLLAR.

We guarantee this. Warm weather and heavy work cause sore necks and shoulders which prevent your horses working or decrease their services by one-half—a heavy loss to you. Sore horses can be worked every



day in the Humane Collar and sores will heal at the same time. Well horses will never become sore. Made for general farming and draft purposes it will outlast three old-style collars. Nebraska State Agricultural Farm and Experimental Stations use the Humane Collar. Sold subject to 15 days trial when used on sore horses. One collar fits every horse. Write for particulars and testimonials to
HUMANE HORSE COLLAR CO.
1926 So. 13th St., OMAHA, NEBR.

Horse Owners

Do not let your horses work with sore shoulders. Harness, Saddle or Collar Galls positively cured with three or four applications of Beardslee's Gall Cure. Also a sure preventive for soft or green horses from becoming galled just when you need them to do your heavy spring and summer work. I will send a full pint of Beardslee's Guaranteed Gall Cure postpaid to any part of the United States for 50 cents, with a guarantee to cure or money returned. Also other valuable information to horse owners free.

—Address—
The Beardslee Co.
37 Belden St., Boston, Mass.
Agents Wanted in Every Locality

REVOLUTION PATENTED BUCKLES...

When used will save more than one-half the cost over old way of repairing harness. No stitching, no riveting. Send 25c to pay for sample assorted set of Buckles, postpaid. Free illustrated catalog. Big profits to agents.

Topeka Buckle Co.
325 Kansas Ave. Topeka, Kansas

mentor 3533. Dam Tomassie 76875, by Tormentor 5th 21962 and he by Imp. Tormentor 3533. Another good bull that is being used in the herd is Mari-gold's Golden Lad C 72886. He carries the blood of Golden Lad, Sultana Woise-the, Stoke Pogis, Bachelor of St. L., ley, Stokes Belle, and Tormentor.

S. K. Linscott, Mr. Linscott's father brought the first pure-bred Jersey cow to Jackson County in 1878, also the first trotting stallion, and registered Poland-China swine, and some of them have been engaged in breeding pure-bred stock ever since. Mr. Linscott is milking 43 Jersey cows at the present time, using 4 of the Burvell, Lawrence, Kennedy milking machines, which he says if properly used give good results. Mr. Linscott is well prepared for caring for his fine herd. He has one of the largest and best barns in Jackson County. This is provided with individual stalls, sufficient in number to hold his entire herd of milch cows. Each stall is supplied with water during the winter months when the cows are kept in the barn, and there is a loft large enough to hold 200 tons of hay. During the winter months the cows are fed alfalfa hay and ground grain, and in the summer they are ranged in large pastures well set to blue grass and clover.

We again call attention to Mr. Linscott's advertisement which starts in this issue, and to the fact that he has one of the largest and best herds of pure-bred Jersey cattle in the West. He is prepared to sell cows of all ages warranted safe in calf to his great bulls, also young animals of both sexes, all of them guaranteed to be breeders. Under the present dairy conditions there is no more profitable cow than the Jersey. If you wish to buy write Mr. Linscott, or visit his herd 4 miles southeast of Holton, Kans., he will meet you at the train and return you. Everything is priced worth the money, and Mr. Linscott will give you a square deal.

The State Fair at Hutchinson.

A. L. Sponsler, Secretary, Hutchinson, Kans., writes THE KANSAS FARMER some interesting things about the prospects for the coming fair and states that the premium list is now ready for free distribution to those who desire it. Mr. Sponsler says in part:

"The famous and successful swine and cattle breeder, N. H. Gentry of Sedalia, Mo., will be one of the principal judges of the beef breeds of cattle and by the time we have heard from other judges invited, the list will comprise a number of that class of judges. Harry Loper, of Wellington, who has been a grand circuit starter will start the races. So far, the races (stakes) have filled even to overflowing. In the seven stakes, 172 horses are named. Many of them representing the best and most fashionable breeding of the United States. Some had so many entries that the management decided to divide them into two divisions, each division to start for the amount of the original purse, thus virtually doubling the money offered. The visitors of the Fair will be

WOMAN'S BEST FRIEND

All the Horrors of Change of Life for Five Years. Leucorrhoea for Ten Years.

USED ZOA-PHORA.

After Physicians Failed to Cure. That Was Five Years Ago. Still Praising Zoa-Phora.

Woman's best friend is one that will give her the degree of buoyant health and strength that nature intended for her. Zoa-Phora is that friend. Not a "patent cure all," but just a medicine, scientifically prepared for women only. One that acts directly on the diseased organs through the blood and nervous system, replacing the old worn-out tissues with new, and removing congestion, inflammation and unnatural discharge.

Zoa-Phora is the well woman's friend, too, because it keeps her well. Mrs. Edwin Lee, of Addison, Mich., says: "Pen and ink can never tell what Zoa-Phora has done for me. It is indeed a true and tried friend and has never failed me once." Whether you are sick, ailing, or well, keep a bottle of Zoa-Phora in the house all the time. It will prove a friend in need.

Mrs. Alice Brown, of Valley Junction, Iowa, wrote on May 27, 1902, "I wish to tell you that Zoa-Phora has been a wonderful blessing to me. I have been a sufferer for the last ten years from leucorrhoea, and for the last five years with change of life and all its horrors. I took treatment from local physicians in Elkhart, Ind., but received no benefit. Finally I was induced to begin taking Zoa-Phora, and after taking four bottles my health is restored. I can now do my own work, and can never thank you enough for the benefits derived from your wonderful remedy." On April 22, 1907, nearly five years later, Mrs. Brown writes, "You may still refer any woman to me. I will gladly recommend Zoa-Phora." Does this not prove that the benefit was permanent?

This letter is strong proof of the merit of Zoa-Phora. The only way that you can become positively convinced that Zoa-Phora will do as much for you is to try the medicine yourself. Go to your druggist and ask him for Zoa-Phora; no other explanation will be needed. You will receive the medicine already prepared, compounded in just the right proportion, and put up in a sealed, sterilized, one dollar bottle. In each package will be found a copy of "Dr. Pengelly's Advice to Women," a medical book, giving interesting and instructive information about all diseases of women and the way to successfully treat them. You can now treat yourself in the privacy of your own home and need not tell your troubles to any one.

assured of plenty of the very best entertainment.

You will observe from the catalogue sent to you the largest premiums offered we have ever put out. For instance, in the Hereford cattle division, the Illinois State Fair offerings are matched exactly and that Fair has had millions of State money appropriated to it. The same amount of money is offered on Shorthorns outside of the premiums offered for milking Shorthorns. The Angus, Red Polls, and other breeds have more money to show for than heretofore.

In the swine department, as in all other departments, there is no entry fee as has heretofore been the practice. This is an innovation that will be appreciated by the stockmen. The Association is to be congratulated upon courage and liberality because very few Fairs, if any in the United States that are not backed by State funds, can afford to hold a fair without charging entry fees. This has been done, however, at the request by petition of the principal breeders of this State.

Most of our state show barns have already been spoken for and we are assured an extraordinary display of draft and road horses. Indications point to a good display of sheep this year. This is an industry which needs support in this State and the fair association is willing and anxious to augment the industry in any way it can.

Much improvement on the ground will be made to improve the facilities and add to the comfort and convenience of exhibitors and exhibits. There is an increased demand this year for space in the farm machinery department. The farmers of this region of Kansas are thoroughly up to date and necessity compels them to seek the best machinery in point of efficiency and saving of labor.

Berkshires—Black Robinhoods.

The two Berkshire sales advertised this week are events extraordinary to the Berkshire-breeding fraternity. The first sale will be held at Strong City, Kansas, Thursday, August 15, 1907 by T. F. Guthrie. The next sale, the day following, at Lawrence, Kansas, Friday, August 16, 1907 by Charles E. Sutton. These sales will constitute an important event for every breeder in Kansas and the United States. It is unquestionably the best offering from a breeders' standpoint ever made in Kansas, and in fact no better offering has ever been made in America. It is the only opportunity in the way of public sale to obtain the most desirable Black Robinhoods in the United States. None are available elsewhere, and on account of the great excellence and character of these offerings it should attract the best breeders in America.

The Guthrie Ranch Herd of Berkshires has the distinction of being the biggest herd in America, he having recently purchased the famous Sunny Slope Herd of Berkshires from C. A. Stannard, of Emporia, which added to his own magnificent herd makes his offering an extraordinary attraction.

Mr. Chas. E. Sutton of Lawrence, Kans., has for many years been regarded as one of the foremost skillful breeders in this country and since he established the Sutton Farm at Lawrence has acquired one of the finest bred herds in America. Mr. Sutton has a national reputation as a breeder and the Berkshire experts who have visited his herd are enthusiastic in stating that it has no peer in America.

The offering at both of these sales has promise of being ideal in every respect, and breeders who wish to secure foundation stock of individual excellence and the most desirable blood lines will find it exceedingly important to attend both of these sales next month. For catalogue and other information address T. F. Guthrie, Strong City, Kans., and C. E. Sutton, Lawrence, Kans., and mention THE KANSAS FARMER when writing for the same.

Grant Chapin's Durocs.

The fieldman of THE KANSAS FARMER visited Grant Chapin's Highland herd of Duroc-Jerseys located at Green, Kans., recently and will endeavor to tell its readers what he found there. Mr. Chapin has one of the great Duroc herds of the West, and one can not but be impressed with the breeding and individuality found there.

Although a comparatively young breeder, Mr. Chapin has spared no expense to secure animals from the best herds and from the best families known to the breed for his foundation stock. He has not only brought the best he could find in the West, but has gone East and bought freely from some of the most noted breeders and herds there. Highland herd is headed by Model Chief Again, King of Colonels 2d, Red Raven and C. E.'s Colonel 2d. Model Chief Again, was got by Model Chief, he by Ohio Chief, dam, Dew Drop Maid by Protection Best, and he by Protection. Model Chief Again has both substance and quality, he is one of those thick fleshed fellows, possessing natural feeding qualities, and will weigh in breeding form 700 pounds with 10 inch bone to carry it. He has very fancy head and ears, strong well arched back, great spring of ribs, and stands upon the best of feet, with legs set well apart.

A large part of the spring farrow are by him, and shows him to be a wonderful sire with great prepotent qualities, his get almost without exception have his fancy head and ears, strong thick-fleshed back, great spring of rib, have plenty of bone and stand up on the best of feet. King of Colonels 2d by King of Colonels, and out of Ohio Chief's G. D. has not been used much yet in the herd, but he gives promise of great results. E. S. Morton who bred him, and who has probably bred more sensational Duroc boars than any breeder in the U. S., without reserve, pronounces him the best he has ever bred. King of Colonels 2d is also probably the highest priced under a year Duroc boar ever sold. A large number of sows will be bred to this great young boar for Mr. Chapin's January bred sow sale. Red Raven who combines some of the best blood lines of the breed, is well known

to Kansas breeders through his get, which occupies prominent places in some of the best herds in the State. C. E.'s Colonel 2d by C. E.'s Colonel, dam Orion Maid by Orion 2d, has some good litters to his credit and is making a record as a sire.

Although Mr. Chapin has one of the greatest herds of brood-sows in the west, he was not satisfied, but went East last winter, and selected from the most noted herds in Ohio, some of the best sows known to the breed.

Among these was Red Princess by King To Be, he by Mortons King, dam Cedarville Queen 3rd, she by the junior champion at the World's Fair.

Red Princess is a show sow and one of the best the writer has ever seen. She occupies a prominent place in Watt and Foust's show herd that won 1st at the Ohio, New York, and Kentucky State Fairs 1906. Francis II by C. E.'s Colonel, dam Francis S. by Kant Be Beat, is another sow that Mr. Chapin purchased, her dam Francis S. is out of the celebrated brood-sow Dew Drop May. Red Princess has a show litter by Golden Rule, and Francis II a great litter by White Hall King.

Another great sow bought in the East is Chapins Queen, by The Chief, one of S. E. Morton's herd boars, and a son of Ohio Chief. The dam of Chapin's Queen is Variety 43d and Protection is her great grand sire through both sire and dam. She also carries the blood of Ed's Colonel, Allison Jr. and Mortons Model, and has a fine litter by King of Colonels, other sows noted for their individuality and producing qualities are by such sires as Ohio Major, Chapin's Duroc, Pilot Wonder 2d, Kant Be Beat, Improver 2d, Hunts Model, Chief Orion, and other good ones. The producing females of Highland herd are remarkable for their breeding, individuality and producing qualities. A large number of these sows were mated to Model Chief Again for spring farrow, and the result is a crop of spring pigs noted for their good backs, fancy head and ears, heavy bone, good feet, and natural feeding and fleshing qualities, from these will be selected the draft for Mr. Chapin's boar sale which will be held October 1. Here will be the place to buy herd-headers. Notice Mr. Chapin's change of advertisement in THE KANSAS FARMER calling attention to this sale, and also his bred-sow sale which will occur January 28, 1908, of which extended notices will appear later in this paper.

Dr. D. P. Smith's Polands.

Dr. D. P. Smith of Longford, Kans., is one of the Poland-China breeders who has made his reputation as a breeder by starting with the right kind of stuff and keeping his herd up to the highest degree of breeding and he is now in a position to realize some good prices for his stock. In his herd are sows and litters by Meddler 2d, Chief Perfection 2d, Masticator, Perfect Challenger, Mischief Maker, Sir Darkness, On Time, Courtier, Highland Chief Jr., and a number of other good sires. Dr. Smith has an excellent litter of five pigs sired by E. L.'s Keep On, that convinces every one who looks at them that their sire was an animal of unusual breeding qualities. E. L.'s Keep On died last week, but Dr. Smith was fortunate enough to have fourteen sows bred to him for fall farrow and while he feels sorely the loss of him, with good luck in his favor E. L.'s get should make him a good return for the \$1,000 that he paid for a one-third interest in him. Dr. Smith starts a card in this issue of THE KANSAS FARMER and we ask our readers to kindly turn to it and see what he has to offer. In writing him mention THE KANSAS FARMER.

E. L. Keep On Poland-Chinas.

Pigs by the world's record breaker, E. L.'s Keep On, Meddler 2d, Perfect Challenger, Masticator, On Time, Maximus, Highland Chief Jr., Pollman's Meddler, Skybo, Grand Perfection by Grand Chief, and out of sows by Meddler, Chief Perfection 2d, Perfect U. S. by Perfect I Know, Keep On Perfection by Keep On, Sir Darkness by Chief Perfection 2d, Cecil by Mischief Maker, Conviner by Chief Perfection 2d, Philanthropist by Expansion Lamplighter, Big Boy by Perfect U. S., Peace Maker by Mischief Maker, and Sunflower Perfection. I will sell a sow or two bred or with privilege to breed to the world's record breaker, E. L.'s Keep On. They will sure be money makers. Herd in care of H. J. Rickley. Address all communications to Dr. B. P. Smith, Longford, Kans.

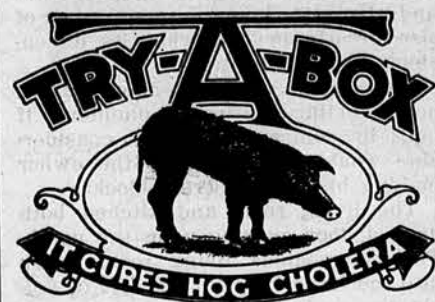
Cascaden Manufacturing Company.

We direct special attention to the advertisements of the Cascaden Manufacturing Company of Waterloo, Ia., who have a big line of farm implements and machinery which they are selling direct at low prices for cash. Their line of hay machinery has been a great seller and exceedingly popular with the buyer and user.

In regard to the responsibility and fair dealing of the Cascaden Manufacturing Company, we are pleased to quote the following from the Black Hawk National Bank of Waterloo, Ia.; concerning the firm:

To whom it may concern: The Cascaden Manufacturing Co. is one of the oldest and most substantial manufacturing concerns in Iowa. They have a paid up capital of \$236,000. The business was established in 1870 by Thomas Cascaden, and they now make a large line of goods, operating four separate factories. The writer has been personally acquainted with the managers for many years, and we do not hesitate to vouch for their integrity and reputation for fair dealing. In addition to his manufacturing interests Mr. Cascaden is the largest owner of real estate in this county, and we do not hesitate to say that customers of the Cascaden Manufacturing Co. will get a square deal in every way.

If you are Losing Hogs by Cholera, or if Cholera is in your locality, USE



Has never failed where used according to directions.

ALSO A PERFECT PREVENTIVE.

Cures Mange, Expels Worms. An Excellent Conditioner. \$1 per pound Can. Guaranteed or money refunded.

MATT BLACK CHEM. CO., McLouth, Kans.

Address B. H. RAGAN, Mgr.

If you have Cholera in your herd, send for us. If we cure, you pay for medicine and our expenses. If we don't cure, it don't cost you one cent.

Worms all Over the Ground

Drexel Mo., Route 2, Jan. 24, 1907.

F. J. TAYLOR CO.
Bag of Tonic received and I put it in box as directed. My hogs eat it fine and I think it has done them good from the worms I see scattered over the feed-lot. I believe it is all right, especially for hogs. Will let you hear from me when it is all gone. I remain yours for a fair trial.
W. G. BINKLEY.



Taylor's Stock Tonic does more than drive out the worms. It puts your hogs, cattle and horses in the pink of condition, makes them grow faster and stronger, prevents cholera, black-leg and all diseases arising from imperfect digestion.

We want you to know all about our Stock Tonic so we will send you 50 pounds on trial if you will send us this advertisement.

In 30 days you will send us \$2 for the tonic, or return the empty bag if it is not satisfactory, and there is no charge. We are sending out thousands of bags on this basis and practically every one is paid for. It shows the merit of the goods and the honesty of the farmers. Cut out this ad to-day and send it to us.

F. J. TAYLOR CO.,
361 Live Stock Ex., Kansas City, Mo.

It's Easy

to hatch them, but it takes the proper feed to raise them. Otto Weiss Chick Feed is scientifically prepared by a poultryman of 25 years experience. A trial will soon convince.



Products for stock and poultry as feed and conditioner. Guarantee everything we sell. Free circular.

The Otto Weiss Alfalfa Stock Food Co.

221-227 So. Santa Fe, Wichita, Kans., U. S. A.

THOS. OWEN, 2801 West Euclid Avenue, Ind. Phone 6306, is Topeka agent for these goods.

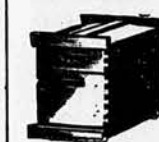
Everything for the Baby

Complete Wardrobe Outfits \$5 to \$50
Long Dresses . . . 24c to \$2.75
Short Dresses . . . 30c to \$2.75

Set of 30 patterns for baby's first dresses with full directions for making, "Nurse's Confidential Talk to Mothers" and my new illustrated catalogue of everything for the baby, for 25c. stamps or coin.

MRS. MARY POTTER, Fayetteville N.Y.

BEE SUPPLIES



We can furnish you bee and all kinds of bee-keepers' supplies cheaper than you can get elsewhere, and save you freight. Send for our catalogue with discount sheet for early orders.

TOPEKA SUPPLY HOUSE,
7th and Quincy, Topeka, Kans.

HENRY W. ROBY, M. D.
SURGEON
730 Kansas Avenue,
Topeka, Kansas

TWENTIETH CENTURY HOMES.

We illustrate this issue a small farm house built of concrete blocks. The large porch with its massive columns and the heavy cornice adds considerable to a very simple exterior and gives this home an appearance of size greatly beyond what its dimensions would indicate.

This house will cost about \$1,800, not including heating or plumbing, if built by contract labor, but considerable would be saved by the owner making his own concrete blocks.

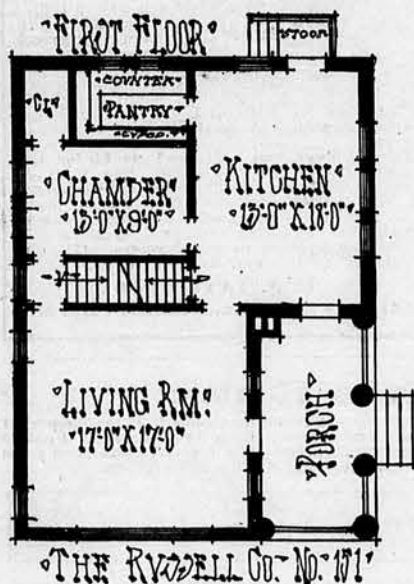
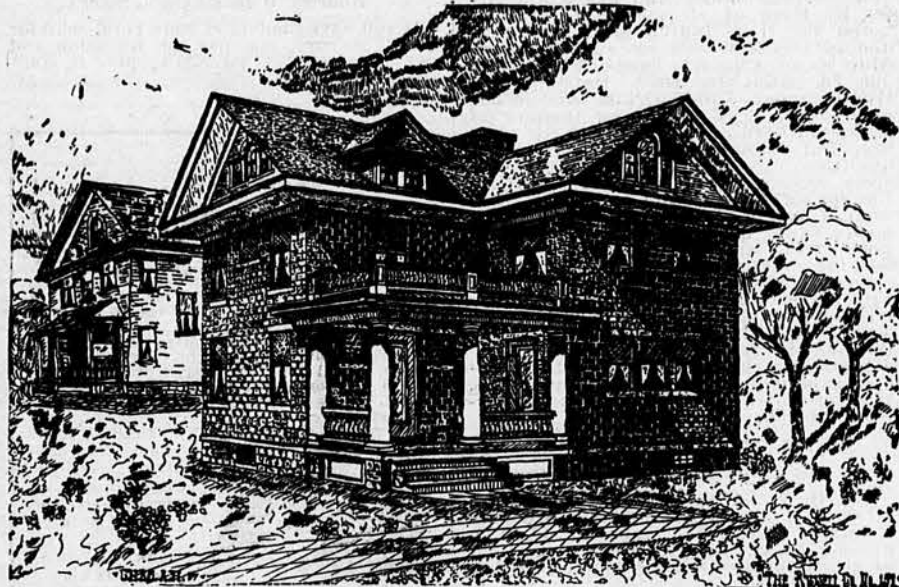
The living room and kitchen both have a door opening upon the porch. The commodious living room opens into the large kitchen which is of ample size to be used as a dining room also. A good pantry and fine bedroom open off the kitchen.

The stairs are conveniently located and can be reached either from the living room or the lower chamber.

Two large rooms and a bathroom are finished on second floor, but if de-

it business when built. The road had as much right to do that as a citizen has to contribute money to build a church, or to erect a factory. But the new school of reformers smelled a rat. They went after the Santa Fe, and got an indictment against the road for giving rebates. The jury construed the donation as a "rebate." The possible fines against the road for this horrible crime will amount to \$1,300,000.

In other words, the Santa Fe must not hereafter give aid or comfort or encouragement or cash to any enterprise that will build up the country through which it goes, nor help in any way the citizens of a town to develop their industries. It was a business proposition for the Santa Fe to help erect the sugar refinery. The Gazette does not believe it was good business, because it does not believe the beet sugar industry will prove a success. But that is neither here nor there. The Santa Fe and the Garden City



sired these could be changed so as to make three or more smaller rooms. A few small changes would permit one or more being finished in the attic.

This is No. 151. Complete plans and specifications will cost \$15.

The second edition of Twentieth Century Cottages containing all of the best plans in the first and a number of new ones is now ready and will be sent postpaid upon receipt of 25 cents in stamps. Address all letters to Home Building Department, care THE KANSAS FARMER, Topeka, Kans.

Prosecution—Prosecution.

When the big sugar refinery was to be built at Garden City, the Santa Fe road, which, by the way, made Garden City, "chipped in" with some money to help built it. If the new industry was to be a success, which it will not be, then the Santa Fe would be the beneficiary, for every ton of beets hauled in and every sack of sugar hauled out would pay freight to the Santa Fe road.

The Santa Fe has spent hundreds and hundreds of thousands of dollars in the southwest in aiding enterprises and building towns. No one ever before questioned the right of the road to help build a town that would bring

people take their chances on that and they know more about it than the Gazette does. If the industry is a success, it will not only inure to the benefit of the people of the upper Arkansas valley in Kansas, but to the whole country in general, and to the Santa Fe railroad in particular. The government itself has been giving a bonus to the sugar growers all these years, a part of the time in cash to the producers, and a part of the time in a tariff on their products. The action of the government in indicting the railroad for doing exactly what the government itself has done for years and is doing now is so inconsistent as to be absurd.

And if this is to be the policy pursued, and if this is the theory of the government in regard to the law prohibiting rebates, where will the Santa Fe and every other pioneer road land? From Topeka to Coolidge and from Newton to Arkansas City and Kiowa, there is not a town in Kansas that has not been given assistance by the Santa Fe road. It has done something, sometimes more and sometimes less, for each and every one of them, but

FLINT-COAT ROOFING

See Our Roofing on the Minnesota State Fair Buildings.

You Will Save 25 to 50 Per Cent.

3-ply Flint Coat Roofing	\$1.90	1-ply Rubber Roofing	\$1.45
3-ply Flint Coat Roofing	\$2.10	2-ply Rubber Roofing	1.90
4-ply Flint Coat Roofing	2.50	2-ply Rubber Roofing	2.25
5-ply Flint Coat Roofing	3.00	Grit Coat Asphalt Roofing	2.75

Impervious Ready Rock Roofing, \$3.50. This roofing has a heavy Burlap insertion.

EVERY ROLL GUARANTEED PERFECT

Above prices are for one square of 100 square feet, delivered at your railway station, all ready to lay. Can be laid by anyone. Nails and Cement with each roll. Our roofing costs less than shingles; lasts longer. Does not rust like iron or steel. Water, Wind, Hail and Fire Proof. Recommended by leading architects, largest railroad companies and corporations in Northwest. Write for Samples and Booklet.

ROCK ASPHALT ROOFING CO., Room 609, Y. M. C. A. Building, Chicago.

there is not one that has not been helped in local enterprises by the Santa Fe. If this policy of the government is to be carried out, there is not enough stock of the Santa Fe to pay the fines that can be assessed against it unless the statute of limitations has run against the crimes and misdemeanors.—Lawrence, Kansas Gazette.

Sweet Clover in San Luis Valley.

The San Luis Valley has been well waked up on the institute question. We have big institutes and much interest taken. Prof. H. M. Cottrell has been given practically all his time by the agricultural college to hold institutes, so is in the valley about once a month. A first-class San Luis Valley Hog Raisers' Association was recently formed, and we are going to have a still more stringent hog cholera quarantine regulation.

The pasture problem has been solved. Sweet clover, the common roadside and ditchside pest, makes a fine hog pasture. When it is small and innocent hogs like it. As it gets older, like some folks, its nature gets tough and bitter and nothing likes it. Therefore, plant it for your hogs, and as soon as it gets six inches high, cut it down with a mower close to the ground. It will keep more hogs to the acre than anything else, grows anywhere, in rocks, swamps, wet ground, dry ground, alkali ground, cinders, or anything, and is the greatest ground enricher of all the legumes.—C. A. LYMAN in the Breeders Gazette.

Baby's Food.

In summer, the liability of the child to stomach and bowel troubles increases fourfold; this is easily accounted for, as infant's food, on account of the high temperature of the season, breeds the bacteria which, taken into the stomach causes irritation and inflammation. The breast-fed infant escapes much, because the mother's milk comes to him direct. Mothers should not wean their babies, if they can possibly help it, during hot weather. The bottle-fed child passes its first summer in constant danger, especially if it has to be spent in the city; the milk has to come long distances, the dairies may not be managed with cleanliness, the cows may not be properly cared for, or the cans not properly cleaned. Formerly, the milk was sterilized, but now it is preferable to pasteurize it. Sterilizing means subjection to a heat of 212 degrees; pasteurizing requires 170 degrees heat. All bottles of milk should be kept tightly corked. The feeding bottles should be washed with brushes and soap and water, and made as clean as it is possible, and then boiled. The bottles, themselves, should have no angles which can not be cleaned, and the neck should be just long enough to hold the rubber nipple. The long tubes of glass or rubber have long since been discarded. The nipple, after having been cleansed, it and should be kept in a cup of water should have boiling water poured over it to which has been added a teaspoonful of borax. Too much care and watchfulness in keeping the vessels and bottles clean can not be exercised.—Dr. Murray, in Ladies World.

THE KANSAS FARMER needs more representatives. Here is your chance. Good wages for any man or woman, boy or girl, either for full or part time. Write us about this.



A Popular Auctioneer.

The above illustration is a correct likeness of Colonel F. J. Zaun of Independence, Missouri, the rising and popular live-stock auctioneer of the Central West. Col. Zaun has made a phenomenal record in his chosen profession, having officiated in many of the very best pure-bred stock sales in the Corn Belt. That he has made good is attested by the fact that he rarely fails to engage with his client for the next sale. The secret of his success is due to his absolute honesty and indefatigable effort in behalf of the man for whom he works, from the time he books your sale until the hammer falls on the last animal offered he is "busy." He is conversant with the pedigrees of all breeds of live stock and his extensive acquaintance with the breeders enables him to render valuable service to any breeder contemplating holding a sale. He is rapidly "booking dates" for fall sales and it will be worth your while to get into communication with him early, with reference to his terms and dates that he has open.

New Idea in Horse Collars.

Until recently horse collars have been little improved since the advent of this piece of harness. Recently, the Humane Horse Collar Co., Omaha, Neb., devised a collar which is entitled to the attention of every horseman. It is made entirely on a new principle which makes sores and galls almost impossible; in fact, the manufacturers claim that when properly used this collar will heal up shoulders that are sore from bruises and hard usage. Now is a most opportune time to give these collars a trial and as they can be bought subject to this condition we would advise every farmer to write to the manufacturer for terms and conditions of this offer. So far there has been a heavy demand for the collar and out of every one hundred put out on trial only two have been returned. We would call attention to the advertisement on page 846. Direct your inquiry to the Humane Horse Collar Co., Omaha, Neb.

Nursery For Sale.

Splendid location, good grounds, brick house, barns, horses, wagons, nursery stock, green house, plants, etc. Electric light, city water, forms corporation 25 years here, fine trade, territory unlimited. No nursery west to Colorado line. A young man or two can run the business, make all the money they want. Am 78 years old. Want to rest. Come and see or write for particulars. Some ready cash balance on time. Prices reasonable. Tyra Montgomery, Larned Home Nursery, Larned Kans.

Very Interesting to a Horse Owner.

Kirksville, Mo., Jan. 29, 1904. The Lawrence-Williams Co., Cleveland, Ohio:

I have cured lots of cases of fistula and bone and bog spavin with Gombault's Caustic Balsam. On hog and blood spavin removed all the bugh; but on bone, killed it, cured the lameness and removed a larger part of the bugh. Can remove all if taken in time; also splints, curbs, thorough-pls. in fact, all enlargements, and have met with the very best of results.

S. J. MILLER.

The Moore Chemical Company of Kansas City, have had a wonderful sale on Fil-Kil this summer. Fil-Kil is one of the best compounds on the market for keeping flies off of live stock and can be obtained from any dealer. Ask them for it and if they do not keep it have them order some for you.

Agriculture

Fertilizers.

I will be very grateful for a little information in regard to fertilizers. What is the best kind, if there is more than one kind? Where can it be obtained? What is about the probable cost? What amount per acre, when sown with wheat? What amount per acre when sown with corn? How should it be applied?

Wilson County. JAS. BUCHANON.

I have published answers to the questions which you ask and have mailed you copies of circulars 2, 3, and 5. Answering your questions in brief: The best kind of fertilizer is alfalfa used in rotation with other crops, and the second best is barnyard manure. You can secure the alfalfa by sowing more of it on your farm, and the barnyard manure by keeping more stock to eat the alfalfa. Wilson County farmers do not usually keep enough stock to carry on a profitable farming business.

As a rule, I do not recommend the use of commercial fertilizers in the growing of corn and wheat, because alfalfa and barnyard manure are so much cheaper and their effect is so much greater and surer. However, you will find the subject of commercial fertilizers, the kind and amounts to use, etc. discussed in the circulars which have been sent you, and you will also find, in these circulars, a detailed discussion of the subject of crop rotation and the use of barnyard manure. The addresses of a number of fertilizer companies are given in the circulars.

A. M. TENEYCK.

Dodder in Alfalfa Field.

I send you herewith a sample of weed or grass, whichever it may be. It has infested my field or alfalfa that was seeded in the spring of 1906. I have never seen anything like it before. It kills the alfalfa out in patches and all it comes in contact with. Will you please tell me what it is and how to get rid of it through THE KANSAS FARMER.

GEO. E. MICHAELS.

Nemaha County.

The sample of weed which you send is dodder, a parasitic plant which attacks alfalfa, growing upon the stems of the plants, sucking the sap out of the alfalfa, and thus destroying the plants. The dodder spreads in circular patches over the field, usually destroying all of the alfalfa in the circle of its path. Now infections are rapidly started when the alfalfa is harvested by dragging the dodder to other parts of the field with the hay rake. If this field is badly infected, I would advise you to plow it up and farm with cultivated crops for a few years in order to clear the land of the dodder seed. If there are only a few patches and these are not large, it may be possible to destroy the dodder by cutting the growth close to the ground and burning it where it grew, adding a little straw or other refuse necessary to make a good fire.

The dodder doubtless came into the field with the alfalfa seed. It is a dangerous pest and I would not advise you to allow it to spread. For further information on the subject I have mailed you a copy of circular No. 7 in which you will find a discussion on dodder.

A. M. TENEYCK.

White Clover on Pasture Land.

I would like to get some advice in regard to stopping the spread of White clover in my pasture. Two years ago there was only a little White clover along the sloughs and now it has spread over acres of the pasture and is killing out the prairie grass. Can you suggest a remedy without plowing pasture?

JOHN MCLEOD.

Osage County.

Let the White clover grow. It is more valuable for the feed than the prairie grass and it will not kill out the prairie grass. The White clover will appear to crowd out the grass for a year or two, but the result will be that the grass will grow more thriftily

because of the fact that the White clover has grown on the land. In fact the White clover is a fertilizer. In the Kentucky blue grass pastures of the Missouri Valley States and of Eastern Kansas, White clover grows abundantly and I have often been asked the same old question how to get rid of it by farmers who do not understand its value or the purpose of its growth. There is no kind of pasture more permanent than Kentucky blue grass pasture but this would not be so if it were not for the White clover which every few years renews the fertility of the soil, storing up nitrogen and humus in the soil for the continued growth of the Blue grass which is a soil exhauster, and this is true of prairie grass also. Let the White clover grow and seed more of it in the pasture where it is not already established.

However, the only way to get rid of it, which I can recommend, is to break the sod and thus kill the clover, which will of course destroy the grass also.

A. M. TENEYCK.

Preparing Wheat Ground.

We have a fine 600 acre farm near Hoxie, the County Seat of Sheridan County. Next week, Tuesday, perhaps, I expect a steam outfit to begin plowing 340 acres for wheat. My intention is to loaf around over this field this summer with a leveling harrow, a four-section lever-harrow, and keep smoothing it down. I will take 40 feet at a round. The idea is to conserve all the moisture possible. The horses are not in a condition to use the "packer" so will use only the harrow. What I wish to know is: How deep shall I plow this land? Would five inches be too deep? We expect it plowed at the rate of 25 or 30 acres per day. It is ideal wheat land, is not soddy, and was plowed last fall.

S. I. WILKINS.

Sheridan County.

Probably five inches is a sufficient depth to plow the land this year, since it has previously only been plowed only three or four inches deep. Next year, however, you may plow six inches deep with good results. Be a little careful about "smoothing it down" with the harrow. The purpose in cultivating land should not be to smooth it but rather to roughen it and keep the surface mellow. I do not think the smoothing harrow is the best implement for this purpose. An Acme or disk harrow is preferable. However, the straight tooth harrow may be used and will do the proper work if you weight the harrow or ride upon it so as to make it dig several inches deep, leaving a furrowed surface. Also the deep harrowing tends to pulverize and settle the soil at the bottom of the furrow slice which is essential in preparing a good seed-bed for the fall sowing of wheat. The objection to harrowing too much with the smoothing harrow is that the soil is made fine and pulverized at the surface and in dry weather will tend to blow away or if there are heavy rains the water runs off the field. The continuous cultivation is all right but you must guard against these destructive agencies.

I have mailed you a copy of circular No. 9 on wheat culture.

A. M. TENEYCK.

Corn Lice and Ants.

I have a field of 50 acres that was practically destroyed this year by ants and their companions, the lice. I disked the field twice in April, got my seed from Mr. Nicholson, Manhattan (Boone County White) and listed it in the first part of May. The seed was good, but the lice killed about 25 per cent and kept sapping most of the remainder to such an extent that it was left weak and puny. The field has only been to corn two years since it was in wheat and oats (two or three years). Fields around me that have not been in small grains for years are free from lice this year, so I presume the theory of wheat destroying the lice does not hold good. Fields that I disked earlier and those that my neighbors disked or cultivated earlier are not affected with the louse. I



Wheat Soil Wears Out

like a piece of farm machinery. If you feed the ground with

Potash

every Fall, it will not only increase your wheat crop, but will gradually bring the soil back to its youthful vigor and richness. A fertilizer containing at least 6 per cent. of Potash should be used. To increase the Potash one per cent. add two pounds of Muriate of Potash to each 100 pounds of fertilizer.

We shall be glad to send you, free, our pamphlets, circulars and reports, which show you how to use Potash and what it does for soils and crops. This is money-making literature.

GERMAN KALI WORKS, 93 Nassau Street, New York
Monadnock Building, Chicago
Candler Building, Atlanta, Ga.
Address office nearest you.

should not like to put this field to wheat unless it is the only or best way of getting rid of this pest, as I have a 30-acre field that I am going to seed to alfalfa and it would leave me very little for corn. I shall be very glad to have your opinion on this.

Also I have a wheat field, about 22 acres, that I intend to put in alfalfa this fall. Would it not be all right to disk it a few times and harrow it and then sow it the last part of August or the first part of September, after a rain? It is free from weeds and crab grass, and I don't like plowing in the heat, besides, I have secured the best stands of alfalfa by just disking, but it was in corn stalks.

Republic County. C. Z. ANDREW.

This is a subject with which I have had little experience. Nothing has been done on the subject by this experiment station. For extended observations on the corn root aphids and ants, I refer you to bulletin 104 of the Illinois Experiment Station, Urbana, Ill. If you write to the director of that station you will be able to secure a copy of this bulletin. The bulletin also contains a report of experiments with destroying chinch bugs in corn.

I quote here the three concluding paragraphs of this bulletin regarding the corn root aphids:

"The general conclusion to be drawn from this whole series of experiments is to the effect that the number of both ants and aphids may be readily controlled and the injuries to corn in a great measure prevented by thorough and frequently stirring of the ground previous to corn planting, and that the disk harrow or its equivalent is the best implement for the purpose. Indeed, the treatment most effective for the destruction of root-aphids will be found most useful as a thorough preparation of the soil for corn, the main difference being that a thorough turning and stirring of the soil is the essential thing for the destruction of the root louse, while it is sufficient for the corn plant if the earth be merely pulverized in place.

"If the corn farmer will prepare his old corn ground early and thoroughly, using the plow and the disk harrow by preference, he should have little trouble in the beginning of the season from corn root-aphids, and so fast and so far as the general community acts in accordance with this idea, to that extent will later injuries by this aphid be forestalled. It is in this, as in many other cases, one acting by himself can accomplish relatively little even for his own protection. The welfare of each depends upon intelligent cooperation by all.

"It is further to be concluded from the observation here reported, that if infested corn ground be planted to oats, the root lice will leave or perish (just which we do not yet know) by the end of May. A rotation which a short period in corn must consequently tend to check the multiplication of this insect and to diminish its injuries to corn."

It appears from the work at the Illinois Experiment Station that early

"OHIO" ENSILAGE CUTTER

Why don't you send for our finely illustrated 100-page, 1907 Catalog? If you don't we're not the only losers.

"OHIO" SPECIAL FEATURES

Immense Capacity
Easiest Feeding
Lightest Running
Most Durable
Most Simple
Most Attractive
Best Silage Distributor



Silver Mfg. Co.
Salem, Ohio

Superiority

Cribbing Corn

Look at the picture. Drive on the Dumping Jack, the jack may be set on either side of feeder, start the horse at the power, the gear will tilt the wagon, you simply stand and watch it unload in less than five minutes.

LITTLE GIANT

Wagon Dump and Grain Elevator the machine of simplicity and strength. You will not be troubled with breakages, we have learned to make every part equal to the duty required. Power is triple geared. Elevators to any required height. Shifting conveyors or stationary drag will carry to every part of crib or bin, leaving no unfilled corners. There will be no choking. You may pick seed corn or sort out bad ears as it goes up the elevator. Why not have a Little Giant on your place? One will last you your lifetime. Write for catalog and full particulars.

PORTABLE ELEVATOR MFG. CO.,
107 McClum St.
Bloomington, Ill.



BALES 15 TONS A DAY HAY

Frequently 18 and 20 tons. Such wonderful records are possible because our Gem Full Circle Steel Baler has a 30 inch feed opening, making it easy to charge and quick rebounding plunger allowing two charges to each circle of team. The patent power-head with its 9 inch trip lever arms enables us to realize the greatest baling pressure ever produced in a similar machine. We will save you \$25 or more in first cost and much more every year in repairs and because of greater capacity. Drop us a postal for prices and a free copy of our "Baler Book."

GEO ERTEL & CO. QUINCY, ILL.

cultivation especially if it is continued at intervals will very largely clear the land of the lice and the ants will also disappear as soon as the lice, their means of livelihood, are destroyed.

If the wheat stubble land is relatively free from weeds I would recommend disking and harrowing in preparing the seed-bed for fall seeding of alfalfa in preference to plowing. Begin the disking as soon as possible. Double disk and follow in a couple of weeks with the common harrow, continuing the disking and harrowing at intervals after every hard rain or give sufficient cultivation to destroy weeds and maintain a soil mulch for conserving soil moisture. Sow about the last week in August or the first week in September as you have suggested, choosing a time when the soil is in good condition to germinate the seed. If there should come a wet spell after harvest and you are not able to disk the field early enough to keep down the weeds, then it may be advisable to plow shallow and work the soil back to a well settled condition by harrowing or perhaps by disking. You are more apt to secure a proper seed-bed, however, by disking and harrowing without plowing. I send you copy of circular No. 10 treating this subject.

A. M. TENEYCK.

Starting Alfalfa.

I can get a good stand of alfalfa but it turns yellow and does not grow. There is very little alfalfa grown in this part of the country, so to get dirt inoculated with bacteria is hard to do.

Would soil, where sweet clover grows, have the bacteria to inoculate alfalfa, and if so what amount is necessary to apply? Would soil from alfalfa sown last fall, where the alfalfa is growing nicely, do to inoculate new fields with? If I should get soil from an alfalfa field five years old, what amount should I apply per acre?

Where do you think I could order seed, to get first class alfalfa seed and what amount should I sow per acre?

P. L. CONDRIA.

Montgomery County.

The bacteria which grows on the roots of Sweet clover are said to grow on the roots of alfalfa also, and experiments carried on at the Illinois Experiment Station gave results favoring the use of Sweet clover soil for inoculating land with the bacteria for growing alfalfa. Doubtless a small amount of the soil carefully spread over the land may give the desired results. However, the more infected soil you use the quicker the infection may take place.

In using infected soil from an old alfalfa field I recommend two to four hundred pounds, as a sufficient amount to apply per acre when the soil is carefully spread over the land, much the same as you would sow grass seed. If you have a plentiful supply of Sweet clover soil I would advise to put on several loads per acre rather than a few hundred pounds.

The alfalfa sown last fall may or may not contain a supply of bacteria. If the plants are growing thriftily it indicates that the bacteria are present. However, it would be better to wait another year before taking soil from this field to spread over other land. The older the alfalfa field, provided it is thrifty and well established, the more bacteria the soil should contain. Four or five hundred pounds of soil from the five-year old field ought to be a sufficient quantity to start the infection on new land where alfalfa has never been grown. I would advise you to spread the infected soil before sowing the alfalfa.

Reliable seedsmen should be able to supply you with good alfalfa seed. For western grown seed I refer you to McBeth & Kinnison, Garden City, Kans., and M. G. Blackman, Hoxie, Kans. Twelve to fifteen pounds of good seed per acre is an ample amount to sow in a well-prepared seed-bed. For more detailed information regarding the preparation of the seed-bed and seeding, I have mailed you a copy of circular No. 10 which was distributed on the Santa Fe alfalfa train.

A. M. TENEYCK.

Small Grain Crops.

BY A. M. TENEYCK AND V. M. SHOESMITH
IN KANSAS EXPERIMENT STATION
BULLETIN 144.

(Continued from last week.)

DATE TO SOW WINTER WHEAT.

This experiment was conducted during the past season only. For discussion regarding the soil, preparation of seed-bed, etc., refer to description of "Depth to Sow Wheat." The dates of seeding and resulting yields are given as follows:

Date of seeding.	Yield per acre 1906, bushels.
September 1	41.18
September 9	39.93
September 21	52.60
September 27	54.04
October 5	53.21
October 12	45.19
October 20	42.95
November 3	26.67

The Defiance wheat was used in this test. The largest yield, 54.04 bushels per acre, was secured by seeding September 27. Nearly as large yields were produced from seeding September 21 and October 5. All of the other plots referred to gave much smaller yields, indicating that winter wheat may best be seeded during the last week in September or the first week in October. The last seeding, November 3, made little growth in the fall and in the spring. The grain on this plot started slowly and did not stool much, thus making a thin stand. The crop from this late seeding would have doubtless been an entire failure if the season had not been especially favorable. The yields of grain from each seeding were closely related to the stand and growth of the wheat. The quality of the grain did not vary greatly.

Previous experiments in this line in 1893-'94-'95-'96-'97, carried on at this station, as reported in Bulletin No. 71, gave results favoring earlier sowing, the largest yield being secured from seedings made near the middle of September. The advantage in sowing early is that the wheat makes a stronger fall growth, covers the ground better, and is not so apt to winter-kill as later sown wheat. Early sown wheat also furnishes more fall and winter pasture, and it is desirable to sow early when the purpose is to pasture the wheat. When the Hessian fly prevails, late seeding has the advantage of early seeding, since the fly does not usually work much in wheat sown after September 25. It is the usual practise at this station to begin sowing wheat about September 25.

AMOUNT OF SEED-WHEAT TO SOW.

This experiment was conducted in the same field as the experiment in "Depth to Sow Wheat," and the treatment given the land was the same as has already been described in discussing that experiment. The wheat was planted September 27, about two inches deep, at the rates mentioned in the following table, which also gives the resulting yields:

Rate of seeding per acre, pecks.	Yield per acre, 1906, bushels.
2	57.28
4	58.46
5	59.41
6	56.33
8	56.38

The wheat on all of the plots was mature and was harvested June 18. The thicker sown wheat appeared to be a little riper than the thinner sown wheat, all of the grain making a good stand, the wheat seeded at the rate of two pecks per acre appearing to be almost as thick as that seeded at the rate of six and eight pecks per acre. This was evidently due to the abundant stooling.

The largest yield was secured by seeding at the rate of five pecks per acre, and the second largest yield from seeding at the rate of four pecks per acre. There was little difference in the quality of the grain. Our usual practise is to sow from five to six pecks of winter wheat per acre. Previous tests at this station, in 1892 and again in 1896, as reported in bulletin No. 59, gave average yields favoring thicker seeding—six to eight pecks per acre.

It is not possible to lay down or state any absolute rule with reference to the best amount of seed-wheat to sow per acre, since this will vary with the different conditions of seed, soil,

and season. As a rule, less seed should be sown on light soils or in dry climates than on more fertile soil or in regions of abundant rainfall. Again an extremely fertile soil may require thick seeding in order to reduce the growth of straw and prevent the grain from lodging. In a well-prepared seed-bed, plentifully supplied with moisture, less seed is required to produce a good stand of grain than when sown under less favorable conditions. As a rule, less seed is required for early seeding than for late seeding, since the early sown wheat often starts more uniformly and has a better chance to stool than the later sown wheat. In a well-prepared seed-bed in soil of average fertility, four pecks of well-graded seed-wheat should be sufficient for seeding in eastern and central Kansas.

FERTILIZERS FOR WHEAT.

Fertilizer experiments with wheat have been conducted only during the past season, 1906. The test was made in the same field as the 1905 fertilizer experiments with oats and barley, the plots crossing those of the previous season. This field has been cropped perhaps forty years, mostly with corn and small grains. The soil is becoming exhausted in fertility and is especially deficient in humus. Table III gives the rate of application of the various fertilizers and the yields secured. As with the oats and barley, the barn-yard manure has proved to be the best fertilizer, the manured plots yielding over nine bushels per acre more than the unfertilized land, the second highest yield resulting from the application of sodium nitrate.

The station has not had any permanent system of plots to which certain applications have been made each year, and as some of the fertilizers, such as bone meal, are not readily available, greatly increased yields could not be expected the first season. A continued application for several seasons might give more favorable results. Some of the yields represented in table III are perhaps misleading, as it would seem improbable that any

TABLE III.—FERTILIZERS FOR WHEAT.

Fertilizer, amount per acre, bushels.	Wheat, yield per acre, bushels.
*Special grain fertilizer	102 30.97
Superphosphate	120 29.70
Pure raw bone-meal	98 30.05
Unfertilized	83 30.35
Potassium sulphate	83 28.05
Potassium sulphate	120 29.48
Sodium nitrate	127 34.30
Sulphate of iron	73 32.65
Barnyard manure	22,126 39.47

*Manufactured by Swift & Co.

of the fertilizers used would cause a reduction in yield, although apparently their application had no beneficial effect on the single crop.

No definite conclusions should be drawn from the results of this single trial. However, this experiment and other fertilizer experiments with oats, barley, and corn indicate that chemical fertilizers which are applied to "worn-out" land, deficient in humus and in bad physical condition, are practically thrown away. The first step towards renewing the fertility and increasing the productiveness of such land should be to supply humus and practise deep and thorough tillage in order to improve the physical condition of the soil. When such land has been put into a good condition of tilth, then the application of chemical fertilizers may give some benefit and a profitable increase in the yields of crops.

In all the fertilizer experiments with small grains conducted at this station the application of barn-yard manure has resulted in the largest yields. Besides containing all the elements of plant food, manure increases the humus content of the soil, thus improving the texture of the soil and increasing its water-holding capacity. Manure can be applied also usually at less cost than commercial fertilizers, notwithstanding the labor and expense required in hauling and spreading manure. Except for the growing of special crops by the most intensive farming methods near large cities, the general use of commercial fertilizers in this State should not be recommended. The Kansas farmer can more economically increase and maintain

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the fertility of the soil on his farm by the rotation of crops, the growing of legumes and grasses, and by keeping and feeding more stock and applying the manure to the soil.

GREEN MANURING FOR WHEAT.

During the summer of 1903 an experiment to test the value of catch crops on land continuously cropped with wheat was commenced on the old college farm, one and a half miles west of the college campus. The soil on this farm is a tenacious clay-loam, rather deficient in fertility. It is also badly infected with bind-weed and fox-tail, which have not been very well held in check by the continuous cropping to wheat, so that this experiment has had abnormal conditions which doubtless accounts in part, at least, for the low yields and the small difference in the yields of the several plots. The following is the plan of the experiment:

Four plots one-fourth of an acre in area were laid out in the spring of 1903 and planted with barley. After the barley was harvested, each of the several plots was treated as follows: No. 1 was double disked, the disk harrow being lapped half. No. 2 was double disked and planted to cow-peas with the grain drill, in drill rows six inches apart. No. 3 was left as a check and received no treatment. No. 4 was double disked and seeded to millet. The plots were plowed September 16 and 17 and seeded to Zimmerman wheat October 3, having been well harrowed at intervals between the plowing and seeding. In 1904 the treatment described above was repeated after wheat harvest, and again in 1905 and 1906. The results of the several trials are given in table IV.

TABLE IV.—GREEN MANURING FOR WHEAT.

Plot.	Treatment.	Yield per acre, 1904, bushels.	Yield per acre, 1905, bushels.	Yield per acre, 1906, bushels.	Av. yield per acre for the three seasons, bushels.
1.....	Lap disked.	14.01	15.10	16.82	15.31
2.....	Lap disked and cow-peas.	14.49	16.53	15.54	15.52
3.....	Untreated.	13.40	12.04	13.41	12.95
4.....	Lap disked and millet.	14.15	15.37	15.81	15.11

The cow-peas have usually made a growth of twelve to sixteen inches in height, while the millet has made somewhat less growth than the cow-peas. The plot which was disked immediately after harvest and planted to cow-peas produced the highest average yield for the three seasons (15.52 bushels per acre.) The check plot made an average yield for the three seasons of 12.95 bushels per acre, 2.16 bushels per acre less than any of the other plots.

The results secured indicate that in this experiment the difference in the yields has been caused mainly by the diskings, which doubtless helped to save the moisture in the soil during the interval after harvest, before plowing. The w. d growth in the unplanted plots has usually been nearly as large as the crop of cow-peas or millet; thus there has not been a great difference in the amount of vegetable matter turned under on the several plots. Weeds do not make a satisfactory catch crop or green manuring crop, however, as they are often too slow in making a covering for the soil and are apt to make an irregular stand; besides, the weeds may seed and propagate themselves and thus injure future crops.

The cow-peas make an excellent catch crop for planting after wheat harvest. It is one of our hardiest annual legumes, and superior to millet, sorghum and rape, in that the cow-peas not only increase the humus of the soil, but actually increase the nitrogen supply, through the action of bacteria which live in the root tubercles, and are able to assimilate the free nitrogen of the air, transmitting it to the plant, which in the processes of growth stores the nitrogen in the stems, leaves, and roots, thus actually increasing the supply of this plant-food element in the soil. It is unsafe, however, to sow winter wheat after plowing under a catch crop of cow-peas. The ground is almost sure to be left too loose and dry to start the wheat well. Corn is a much better crop than wheat to follow cow-peas, plowed under in this way, and the experiments carried on at this station in-

dicate that the effect of green manuring with cow-peas is much more marked on corn than on wheat.

(To be continued.)

To Get Rid of Ants.

These little pests are very hard to drive away, but I read the other day that one woman had found out that onions are effective. She says:

"Some one told me to try sliced onions. I did, and the ants have disappeared. They came in through a little crack in the window sill. So I poured some molasses on the sill and laid slices of onion in it, and it proved too much for the pests. I have found their nest in an old apple tree near the back door; and if they trouble us again I shall pour gasoline in the cavity."

Another one says:

"Apply pepper to the pantry-shelves under the paper covers and scatter along the floor by the windows or cracks where the ants made their entrance. Locate their hill, which will be near the foundation of the house, and pour boiling water or kerosene oil into the opening of each hole. This is the most heroic method. It is also stated that an abundance of cold water persistently applied with the hose to a lawn where ant-hills abound will ultimately drive the ants away. A moist sponge dipped in sugar or molasses makes an excellent trap for ants. As soon as full drop in hot water. Black ants can often be driven away by sprinkling ashes saturated with kerosene about their haunts, and new leaves of green wormwood scattered about the house will also send them off in a hurry."

Another remedy is to mix borax and

sugar half and half and place it where they can get it. This is especially good for the little red ants.

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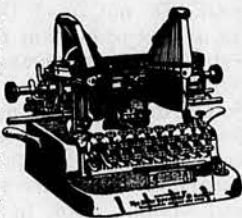
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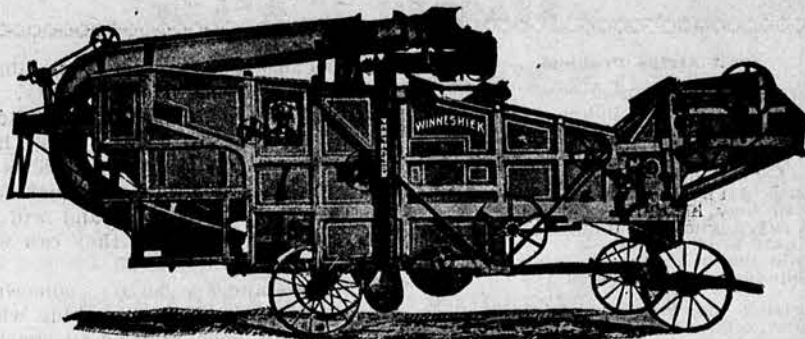
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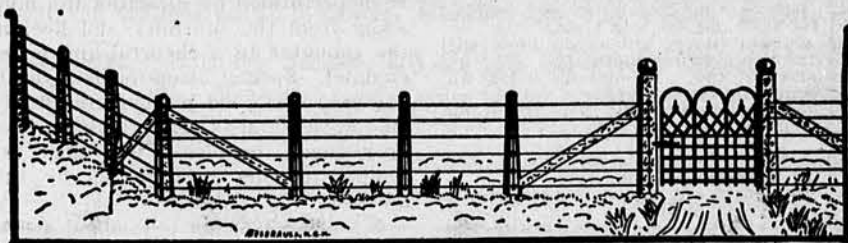
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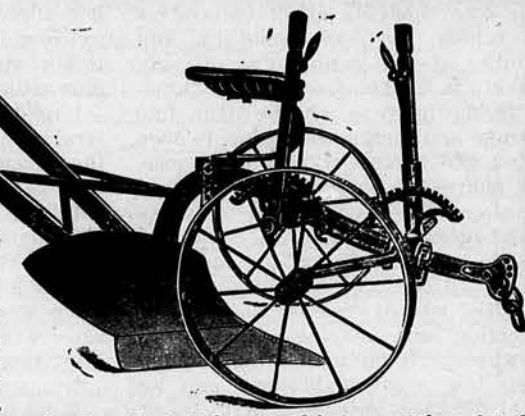
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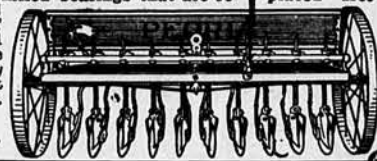
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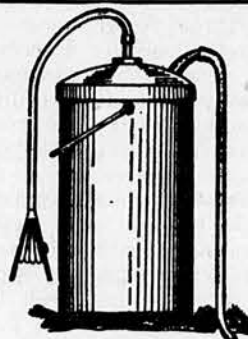
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A Strike Problem.

Me fadder struck, away las' June, an' hasn't turned a lick— He hasn't even cleaned the clay dat was stuck ter his pick. He didn't like the wages dat dey chucked inter his mitt—I guess dat's what de trouble was, but anyhow he quit. But, say, I guess de fambly's in de biggest kind of luck— De ole man's in the walkout, but me mudder hasn't struck.

Me sister, she was workin' in a place dat sells quick lunch. De boss, he makes some kicks, an' dat starts trouble wit' the bunch. Dey all goes out an' won't go back—you oughter talk to Liz— She's makin' speeches ever'wheres about de strikin' biz. Dat's all she does—just chews de rag about de moneyed duck. But still we're eatin' regular, 'cause me mudder hasn't struck.

Me brudder Bill—he's strikin', too—been out since May de first. He says de slob dat takes his job is lookin' fer de worst. Dey wants him back, but, no indeed! He says dat he won't stan'. Fer workin' dere, unless de boss will fire some udder man. I'm strikin' too. I hops de bells, an' wants anudder buck. But dere at home we're eatin', 'cause me mudder hasn't struck.

Well, say! Now, on the square, it's fun ter hear me brudder Bill. An' sister Liz an' de ole man start up a talkin' mill. About how dey've stopped workin' jest ter teach de udder dubs. An' all de time me mudder keeps a huslin' at de tubs. I likes de ole man's backbone, but like me mudder's pluck—I guess we'd all go hungry if me mudder'd gone and struck.

—Chicago Tribune.

As a Man Thinketh.

Few people realize to what extent their own thoughts affect themselves and others, nor understand the full meaning of the saying, "As a man thinketh in his heart so is he." Thinking in the heart is not the light, idle musings and imaginations, but is deep rooted and carries with it a purpose, that shapes and molds the man into anything the heart conceives. The egotist does not think in his heart that he is everything he imagines himself to be. He imagines himself to be the lord of creation, the pink of perfection and smartness concentrated, whereas if he would think in his heart his eyes would open and he would discover that he is a fool and that it was all an imagination of the heart, and a very vain one, too. It is altogether different with the self-respecting person, with him who has a certain amount of self-esteem. He thinks in his heart and knows his abilities and also his shortcomings and does not think more highly of himself than he ought. He is honest with himself and does his best to live up to his high ideals, to be somebody in the world and so something worth while. There is a difference between the egotist and the self-respecting person, and the difference is in the thinking.

He who thinks evil thoughts will be evil whether the evil thoughts be about himself or his neighbor. It is almost as bad to depreciate oneself as to think too highly of oneself. Self-dissection—looking for defects and faults in oneself or in others, keeps the mind upon these things and only fixes them more firmly in the character and detracts from the person's ability and strength to overcome them. If one spends all his time looking for thorns and bewailing their existence he will not see and enjoy the flower that may be under his very feet.

Many a man has failed in life because of the lack of proper self-esteem and self-appreciation. What one thinks in his heart is reproduced in his life.

If your thoughts of yourself are morbid or deformed, these defects well of your good qualities—know and appreciate them for what they are worth. Have a proper self-esteem and it will keep you from doing things that would not be worthy of you, or that might mar your career. He who thinks meanly of himself will never achieve much. He will fear to

try because he does not trust himself and thinks he has not the ability.

This may be observed in children when learning to walk. They have the strength of limb, their muscles are in working order, but they lack faith in their ability to do it and will not try. Make them think they can walk and they can.

Circumstances have sometimes forced persons to do something which if they had been allowed to consider or choose, would have been refused upon the ground that they could not. They really had the ability, but they lacked confidence in themselves and thought they could not.

A great deal of importance is given to mental suggestion in curing the sick. Some wonderful cures have been performed by directing the mind away from the infirmity and keeping the thoughts in a cheerful and happy channel. Special attention is given to hygienic rules, but no medicine is given. Patients are taken who have been pronounced hopeless, but none attempts to cure tuberculosis by this method.

A noted physician tells about a man who had lost the power of speech and came to him for treatment. The director put the fever thermometer into his mouth to take his temperature, and the mute man thinking it was the instrument that would cure him, immediately regained his voice and retained it the rest of his life. A physician of my acquaintance said that he had cured many patients with nothing but bread pills, and impressing the patients with the thought that it would cure without fail.

I read of an instance which demonstrates the influence of the mind over the physical man. An experiment was tried upon a hundred patients in a hospital. A glass of sweetened water was given each of them, after which the report was given out that an emetic had been given through a mistake when every one but twenty became nauseated and vomited.

If, then, as one thinks so he is, let us think the thoughts that will make us what we wish to be. It is said that one can be anything he desires if only this desire is great enough—if he thinks it "in his heart." Let us think cheerfully and have a happy outlook on life and although like good old St. Paul we may find that the "flesh is weak," we may, by persistence and perseverance be cheerful even in pain and with other bodily drawbacks.

Reading in the Home.

MRS. FLORA D. REED.

O! for a memory to retain all the good things we read, the homely helps for everyday affairs, the kindly sympathy and cheer from those who have trod the same stony paths that we have with perhaps more of courage and grace; the examples of brave deeds and noble self-sacrifice; the results of invention, exploration, investigation, and thought, all that is ennobling and inspiring, that broadens the intellect and teaches us the love of humanity that can look beneath the surface, and yet with no power to cumber the mind with the polyglot of crime, slander, falsity, and trash through which we must wade in the weeding out of the essentials in our daily press.

Ike Marvel says, "Reading is the great, and happy disentangler of all those knotted snarls, those extravagant vagaries which belong to a heart sparkling with sensibility." It is even more than this; it is to humanity what sunshine is to vegetation and none the less essential to its growth and perfection. A mind devoid of this sustenance is like a garden without a gardener, grown thick with rank weeds and fruitless vegetation, preventing the development of the plants destined for the maintenance and comfort of humanity.

Do we fully realize our responsibility

in placing before the youth of our land such literature as shall be conducive to the healthiest growth of those germs of purity which are inherent in us all? In youth the mind is ever alive to stirring adventure, brilliant dash and romantic development. Place before them such trash as permeates every village, ladders up our postoffices, and literally floods our large cities. There is no standard of measurement for the evil done by this pernicious reading matter. The result of gratifying the taste, once cultivated, for this dime novel class is inevitable, moral depravity.

Good books and papers are so cheap nowadays that to fail to provide an abundance for the individual likings of each member of the family is little short of criminal carelessness.

While in the home, close sheltered from sin and temptation, character building is growing apace. Deny them no opportunity to make the armor impenetrable against the strongest temptations.

Forever eliminate the Sunday pictorial pages, which portray the bowery tough as a hero who is rewarded for his every act of villiancy or ascribe to mortals, supernatural powers.

Canning Vegetables.

To Can Corn.—Pick the corn in its prime and cut off at once. If the corn is not perfectly white, score each row of kernels with sharp knife and scrape out the pulp. Cut fine any way at least twice through each of the kernels, and don't cut into the cob to save it. See that there are no air bubbles in the can, also that the rubber ring is in place before putting the top on, as the top must not be removed after cooking. Screw the top on just enough to prevent coming off in the boiler. Put cold water in boiler so it comes half up to top of cans, heat slowly to boiling point, then keep water bubbling, not hard, for four hours. Take out and screw top tight.

To Can Peas and Green Beans.—

Fill quart jars as full of peas as they will hold; fill up with cold water; put on new tops and rubbers; place in pot or boiler with cloth or something between jars so they will not break, and fill up nearly to the top of the jars with water. Boil three hours, and keep filled up with hot water as it boils down. Take one jar and fill up the rest. Boil half hour longer, and seal. Do not touch the tops hereafter as a kind of cement forms around the rubber which makes it air-tight. When preparing for use boil in salt water, drain, season as you would new peas. For canning green beans the best time is in the fall, and some say corn field beans are the best. String and break. Cook in salt water until good and done, as they will keep better. Put in jars and for half gallon jars leave enough room to add three tablespoons of good strong boiling hot vinegar, and then seal. When preparing for use boil in water with a little soda added. Drain, season with meat fryings, or as desired. The jars should be set upon a wooden rack of some kind so that they will not come in contact with the bottom of the boiler and be broken by the extreme heat.

Drying Corn and Beans.—The old way was to boil, then shred the corn from the cob and dry. Try this way, which a reader recommends: If possible, have your corn ready the night before, or have some one to husk and silk while you prepare the corn. After it has been husked and the silks drawn off, cut the grains down; do not cut too close to the cob, and scrape the rest; have a hot oven ready, put the corn in bread pans and let it cook until, when stirred with a spoon, no milk will show. Keep well stirred while cooking so it will not burn. Have a stretcher ready, and scatter your corn on it. Now, while this has been cooking, you can prepare another panful and slip it into the oven as soon as the first panful is out. In this way one can dry all the corn an ordinary family will use. By this process the milk is cooked to the corn and does not dry up in little particles. To make a stretcher, take any long strip of cloth, and tack the



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cloth along the edges on either side of boards or strips of lumber and nail piece across the ends—something like a quilting frame. Stretch the cloth as tight as possible without tearing it. A 100-pound weight flour sack makes a convenient size for handling.

Max beans, dried in the following manner, are fine: Prepare the beans for cooking, and boil in clear water until tender; then drain off the water, place the beans on a stretcher and dry. Use the same water to cook your next batch of beans in, when cooking to dry.

After corn and beans have dried, they should be placed in a heavy paper sack of some kind, as insects can not get through the heavy paper as they can through cloth. In drying corn and beans, select them while young and tender, using only perfect ones, and have fresh to start on.

Uses for Sour Cream.

Aside from the economy in the use of the occasional cup of sour cream or milk, foods made from our sour cream or milk keep moist longer, and have a certain quality that butter cannot impart. The souring of milk is caused by the harmless lactic acid bacteria, which, in growing, produce the acid for which they are named. This acid is present in a surprisingly uniform amount and requires less soda or other alkali than many are in the habit of using. One-half teaspoonful of soda is a safe general rule for each cupful of sour milk. Milk sour enough to be bitter should not be used. If the milk be stale as well as sour, throw it away, especially if since souring it has been kept in a warm room. In using sour milk remember that the escape of gas takes place immediately on adding the soda to the batter; therefore work quickly, and do all the beating before the addition of the second chemical.

Graham Cookies.—Graham cookies made according to the following recipe are both excellent and inexpensive. Two cupfuls of granulated sugar, one cupful of shortening (half butter and half lard or other shortening) and grated nutmeg to taste; mix well together, then add three-quarters teaspoonful of soda dissolved in one-half cupful sour milk or buttermilk. Stir in half graham flour and half white flour. Mold as soft as possible and roll either thin or thick as desired. Sprinkle with a little sugar and run the rolling pin lightly over it, then cut out and bake in a quick oven. If unsalted shortening is used, a little salt must be added to the cookies.

Graham Bread.—Add one-half cupful of granulated sugar to one beaten egg. Beat and add one cupful of buttermilk or sour milk and two tablespoonfuls of sour cream. Add one and one-half cupfuls of graham flour mixed with one cupful wheat flour. Finally beat in one-half teaspoonful of soda dissolved in one tablespoonful of hot water. Bake slowly.

Biscuits.—To each pint of sour cream add one teaspoonful of soda, one teaspoonful of salt, and flour enough sifted with one teaspoonful of soda for a soft dough. To the first cupful of flour add one teaspoonful of baking powder and sift together. Bake in a quick oven fifteen minutes.

Brown Bread.—After trying various receipts for brown bread, I have found the following not only the best, but the easiest to make. For one loaf take one cupful of sour milk, one cupful of sweet milk, one teaspoonful of salt, one-half cupful of molasses with one teaspoonful of soda thoroughly stirred in; add one-half cupful of white flour and about three cupfuls of graham flour. Mix so stiff that a little dough dropped from the spoon will not quickly settle. Put in a deep bread pan and bake in a moderately hot oven for one hour. If not stiff enough, the top crust may separate from the rest of the loaf. If the neutral molasses be used use only one-half teaspoonful of soda.

Filling for Cakes.—To two-thirds cupful of sour cream add one cupful of chopped nut meats and one cupful of sugar. Boil five minutes and beat un-

til cool enough to spread between layers.

Cream Pie.—To the beaten yolks of four eggs add one cupful of sugar, one cupful of chopped raisins, one cupful of sour cream and one-half teaspoonful of cloves. Cook until thickened in a double boiler. Fill a baked pie shell, cover with meringue made from the whites of the eggs, and brown slightly in the oven.

Shelled Beans.—One of our favorite uses for sour cream is with shelled beans. We use kidney or cranberry beans. Soak and cook as usual. When tender pour off the water, add sour cream to thoroughly moisten, and simmer one-half hour. The alkali in the beans removes all sour taste from the cream and the resulting combination is particularly good.

Spice Cake.—Add one cupful of sugar to one well-beaten egg. Sift one teaspoonful each of cinnamon and nutmeg, one-half teaspoonful of clove and one-half teaspoonful of soda, with one and one-eighth cupfuls of flour. To the egg mixture add one-half cupful each of sour milk and sour cream, beat thoroughly and beat in quickly the sifted flour mixture.—Good Housekeeping.

Mildew on Roses.

Plants too close to a porch or dwelling, especially in partial shade, and without free circulation of air, are likely to be attacked by mildew. A sudden drop in the temperature, especially after a humid season, subjects roses to subsequent mildew as quickly as the same cause does with indoor roses. For outdoor roses under an attack of mildew syringe both canes and foliage with the following: One pound hard soap, one-half pound of flowers of sulfur, ten gallons of water. Dissolve the soap in boiling water, stir in the sulfur, then add cold water sufficient for ten gallons. This is a perfect cure and far surpasses the method of dusting with sulfur. The latter answers for light attacks and is splendid when applied when the plant is thoroughly wet with dew or water.

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The Young Folks

The Blind Men and the Elephant.

It was six men of Indostan,
To learning much inclined,
Who went to see the elephant,
(Though all of them were blind.)
That each by observation
Might satisfy his mind.

The first approached the elephant,
And, happening to fall
Against his broad and sturdy side,
At once began to bawl:
"God bless me! but the elephant
Is very like a wall!"

The second, feeling of the tusk,
Cried: "Ho! what have we here,
So very round, and smooth, and sharp?
To me 'tis very clear,
This wonder of an elephant
Is very like a spear!"

The third approached the animal,
And, happening to take
The squirming trunk within his hands,
Thus boldly up he spake:
"I see," quoth he, "the elephant
Is very like a snake!"

The fourth reached out his eager hand,
And felt about the knee;
"What most this wondrous beast is like,
Is very plain," quoth he;
"Tis clear enough the elephant
Is very like a tree."

The fifth, who chanced to touch the ear,
Said: "E'en the blindest man
Can tell what this resembles most;
Deny the fact who can,
This marvel of an elephant
Is very like a fan!"

The sixth no sooner had begun
About the beast to grope,
Than, seizing on the swinging tail
That fell within his scope,
"I see," quoth he, "the elephant
Is very like a rope!"

And so these men of Indostan
Disputed loud and long,
Each in his own opinion
Exceeding stiff and strong,
Though each was partly in the right,
And all were in the wrong!

—Selected.

Miss Trevor's Ward.

"Are you quite through with the mail, Miss Trevor?"

The young woman at the desk by the window looked up.

"Quite through with your share of it, Mr. Renwick. My share is a little larger than usual." And she bent again to her task.

He pointed to the package before her. "And those are all begging letters?"

"Most of them are begging letters. A few are merely annoyances."

The old man sighed. "It's strange how they persist in writing. They must know I never give indiscriminately. Perhaps the same sort of fever impels them to write to me that allures them into buying the lottery tickets. And you don't find one among them that makes an honest or worthy appeal?"

"Not one, Mr. Renwick."

"I trust you are not getting hard, Miss Trevor? You are too young to be cynical."

"I don't think its going to hurt me Mr. Renwick. You have asked me to stand between you and these letter writers. It hurts me a little to find there are so many people who are willing to humiliate themselves, but I know that honesty and independence and pride still exist in the world, and that I am simply doing my duty when I deliver you from beggars and cyclophants."

The old man watched the quick fingers working as the girl filed away the letters.

"What is your ambition, Miss Trevor?"

He had a way of speaking out abruptly, and his question did not surprise the girl. She answered him without looking up: "To give my mother a good home; and to lay by something for a rainy day that we talk about and never expect."

"A modest ambition," said the old man. "But have you never thought of marriage and a different sort of home?"

A soft blush tinged the girl's cheeks. "I am thirty," she answered, "and quite hopeless."

He shook his head. "Then you are willfully hopeless. But you have thought of it?"

The flush deepened. "Years ago," she murmured. "I was quite young. It was all like a dream. The wedding day was set. He never came."

The old man frowned darkly. "You were well rid of him," he growled.

"I tried to think so, but it was hard, very hard. I'm afraid it robbed me of some of my faith in humankind."

"Because one man played you false," cried the old man. "That isn't fair. And did you find out what drew the unworthy fellow away?"

"It was another woman. I heard the story afterward. He had been wavering between us. It was the other woman who won." She sighed. "I was only twenty then."

The old man eyed her keenly. "I fancy," he said, "that you are a great deal happier to-day than you would have been if you had married that unworthy fellow."

"No doubt that is true," she answered. "Yet somehow I can't help wishing that I had won him instead of the other woman."

"The eternal feminine," muttered the old man. But there was no sarcastic chill in his words.

"I don't know why I have told you this," said the girl presently. She hesitated. "I think it must be because this is the anniversary of the day that should have been my wedding day."

Her face was hidden from the old man. Her eyes were on her work.

When he spoke his voice was very gentle, "You have paid me a compliment by telling me," he said. "I have won such a reputation for hardness that I am grateful to know that some one can treat me as a sympathetic friend." He paused.

"You speak of an anniversary," he said. "I am inclined to look upon it as the anniversary of your deliverance. You give it a more sentimental significance. That is natural. But it has just occurred to me that you might want to mark it in some practical way. Perhaps by helping a needy sister. Perhaps by making marriage possible for some worthy pair. You will know how to use this remembrance. Miss Trevor, you and I have given away a great deal of money—and you have saved me many times from giving unwisely."

The girl looked up. "You are very kind, sir," she said, "and very thoughtful. But just now I can think of no way to—to utilize your suggestion."

"The way will undoubtedly be made clear, Miss Trevor. Let me know when you find it."

He leaned back in his chair, half closing his eyes. His thoughts were busy with the past. There was a girl—yes, she was very like this girl. Her hair was brown, her eyes were dark and serious. He had fancied her as a boy, and when he grew to manhood his dearest visions—he had visions then—always placed her by his side. But he was too poor to think of marrying, and she wedded the son of the rich miller—at least he passed for rich in those dull days.

The old man grimly smiled. He could buy the rich miller a thousand times over. And yet in that day he would have looked upon \$500 as a fortune. With \$500 he would have dared to ask the girl to marry him. Very likely she would have refused. Perhaps it was all for the best.

The girl looked up. "I beg your pardon, Mr. Renwick," she said, "but here is a letter that is puzzling. If I am a judge of such things, it isn't an honest letter, and yet somehow it worries me."

"Let me hear it."

"It purports to be from a child, but I fell quite sure it is inspired by an older head." She spread out the crumpled sheet.

"Dear Mister Renwick, I am only a little boy and nobody knows I am writing this to you cause papa and mama are both too proud and they would be very angry if they know I was writing. Papa had money once and we were so happy but he signed a paper for a friend and the friend was not an honest men and papa lost all his money. And now papa has rheumatism in his hands and he finds it hard to get work and mamma hasn't been well since baby Joe died and the rent is three months due and the man says we must pay or leave and I haven't any shoes to wear and mama cries



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most all the time. Now, please, can't you help us with a little money, dear Mr. Renwick, cause we are so poor and very worthy. I heard papa say that he had \$200 it would put him on his feet again. It would be so little to you and so much to us Mr. Renwick, and would pray for you every night. Please send soon to 29 Court alley, upstairs, back room, to Mister James Desmond. That's papa and I'm little Jack."

The old man nodded. "Quite evidently a fraud," he said. "Little Jack piles on too thick. Why let it worry you?"

The girl faintly smiled. "I don't know why it should," she answered, "but it does." She hesitated. "I think," she said, "that I will investigate it personally, this evening." "Court alley," mused the old man. "That's not a savory locality. I will send Brown with you. He will call with the motor car at 7.30."

When the old man entered his office the next morning the girl was at her desk.

"What did you find out, Miss Trevor, concerning the boy and the letter he wrote?"

"Quite enough, sir. The people were what I expected. The man is a vagabond, and the woman a poor creature with an appalling taste for strong drink."

"And the boy?"

"There is a boy, but he isn't related to them. The boy is better than his surroundings. He told me the woman made him write the letter and send it to you. The boy is an orphan. His father died four years ago, and his mother a year later. His only home since his mother died has been with this wretched pair."

"He should be taken from them," said the old man.

"I have arranged to take him," the girl responded. "I bought him from the people. He will be brought here this morning."

"And what will you do with him?" the old man asked.

"I mean to adopt him."

He drew down his thick grey eye brows.

"Isn't this a great responsibility?" he gently asked.

"I have no doubt it is, but I mean to assume it."

A clerk appeared in the doorway. "Beg pardon, sir, but there is a child here asking for Miss Trevor."

The girl sprang up. "It is the boy," she said. "May I—may I bring him in?"

He was a handsome little fellow of eight years with thick brown hair and big brown eyes. His clothes were shabby, but his face was clean and his curly hair was fairly smooth.

"Mr. Renwick, this is Jack—Jack Ainslie."

"How do you do," Jack Ainslie?" said the old man, and took the boy's hand in his.

The boy looked at him with frank eyes.

"Did you get my letter?" he asked.

"Yes."

"She says it was naughty to write it. But I wouldn't have if Mother Desmond hadn't told me. Why, I didn't even have a postage stamp."

"We understand, my boy. And so you are going to have a new home?"

"Yep. I'm going to live with her. She told me."

"And you're going to try to deserve all her kindness?"

He nodded. "Yep. I'll bet she ain't the kind that knocks kids around. She looks mighty good to me."

The old man raised his head with a quick smile. Miss Trevor was gazing at the boy with an expression on her face that he had never seen there before. For the moment it seemed to him that she was beautiful.

She caught his wondering glance and flushed. "That will do, Jack," she said. "You may sit over there until I can take you away."

Miss Trevor came a little closer to the old man's desk. "You may remember that I told you that yesterday was—was an anniversary?" she said to him in a low tone.

"Yes," he answered, "I remember." She drew her breath quickly. "This is his son."

The old man looked up. "The son of the man who was unworthy?"

"Yes. There is no mistake about it. He bears his father's name. He is his living image. They were very poor and very unhappy."

She paused and looked away.

"And this is why you want to adopt the lad?"

"Yes."

He looked at her a moment. "If I remember right," he gently said, "I suggested that you should mark the anniversary by some special act of kindness. You have done so—and now I ask you to let me add my share." He made some figures on the letter pad before him. "I propose to put this amount in the bank as a Jack Ainslie fund," he said "with Mary Trevor as sole trustee. I think the income will be quite sufficient to support and educate your ward until he comes of age."

He drew aside his hand so that she could see the figures. The tears rushed to her eyes, her lips trembled.

"Thank you," she murmured brokenly. Then she turned quickly and went back to the boy.—W. R. ROSE, in Cleveland Plain Dealer.

The Little Ones

Robin in the Tree-Top.

Robin in the tree-top,
Fleeting cheerily,
What's your merry message,
Robin, dear, to me?

Robin bids me waver
Never, come what may;
Robins bids me take the road
As for holiday.

Robin in the tree-top,
Singing all day long,
Thank you, bird of gladness,
For your cheery song.
—Margaret Sangster.

Mr. Johnson's Story.

ELVIRA LEE.

Tom was sitting on the gravel walk making a fort when old Mr. Johnson drove up.

"Here young man, ask your ma if you can't go to town with me."

Mr. Johnson often took Tom to town and Tom always liked to go, so he scampered to the house as hard as he could go, and came back just as fast.

When they had gotten started, old Mr. Johnson said:

"Well sir, what were you doing there on the walk?"

"I was making a fort and you were going to be general," said Tommy. "Is that so?" said Mr. Johnson. "Well I was in the war once and I will tell you about a little boy about as big as you that I saw. We were marching through the country and it was powerful hot and we were thirsty, so we turned into a farm house to get a drink. There was a little boy there with curly black hair and he just stood up and said, 'What do you want? Get out of here.'"

"We want a drink, young man," said the captain, not liking his tone of voice. "You can't have any here," he said and ran to the well before we could get there and threw the cup into it. The men would just as soon drink from a bucket, so they started to draw it up, but, you know, that boy just fought and kicked."

"Somebody give this boy a paddling," said the captain.

"Now, I always liked boys, so I took him in hand and said:

"Why don't you want us to have a drink?" "Cause you killed my brother," said the boy, still trying to fight. "Just then a woman came to the door and said, 'Why, Tommy—yes, sir, his name was Tommy, the same as yours—'What are you doing?"

"These bad men want a drink and I'm not going to let them have it, 'cause they killed Bob."

"Oh, no," said the woman, "these are our soldiers, they are good men and they helped Bob."

"Well sir, you never saw a boy look so shamed in your life. He went and got us a cup and acted as nice as could be. Whoa. Here we are, you sit right here and hold my horses, while I go in and get some meal."

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This marvelous remedy is a scientific compound discovered by a professor of the Vienna University, Austria. **Toxico** is an internal treatment, pleasant to take, and does not derange the stomach, as the dose is only 8 drops in a small wineglass of water. Guaranteed under the Pure Food and Drug Act, June 30, 1906.

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A CASE OF CATARRH OF LONG STANDING.

Dec. 31, 1906.

Toxico Laboratory:
Gentlemen:
I had a very severe case of catarrh of long standing. On waking in the morning I would have to clear my throat, and a hard lump about the size of the end of your thumb would come from my throat. Now, after using your Toxico treatment, this lump has nearly disappeared, and the continual ringing in my right ear has entirely ceased. I am well satisfied.

Yours respectfully,
W. R. BYNUM,
713 N. 19th St., Birmingham, Ala.

HAD ASTHMA ATTACKS ONCE A WEEK.

Dec. 3, 1906.

Toxico Laboratory:
Gentlemen:
I get asthma once a week regularly, and I have to vomit and cough; my eyes get blood red and swell up. Your free sample did not help me much, as I have asthma a long time. You may send me a month's treatment, and I hope it will cure me.

I remain respectfully,
FORREST G. GLASSER,
Kutztown, Pa.

HAD HAY FEVER FOR 26 YEARS.

Sept. 13, 1906.

Toxico Laboratory:
Sirs:
I have had hay fever for twenty-six years, and no one knows what I have suffered. My head and eyes have bothered me so much that I have had to stay in a dark room. Nothing gave me any relief until I tried Toxico, and since I have taken your wonderful medicine I have not been bothered once. Excuse me for not answering sooner, but I have been very busy since my hay fever has been cured.

Yours respectfully,
MRS. CLARA KELLER,
Elyria, Ohio. Route 3.

Read this letter received more than three months later:

March 20, 1907.

Sirs:
I have not had an asthmatic attack since I received your first bottle—that is, after I had taken Toxico for two weeks. I used to have attacks every week. My appetite improved, and I am now strong and open chested, and can take part in athletic games. I cheerfully recommend Toxico to all sufferers and will answer all questions about the effect of your remedy. I hope this will direct a sufferer to your wonderful remedy.

I remain yours respectfully,
FORREST GLASSER,
Kutztown, Pa.

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Dairy Interests

They Bled Kansas Long Ago.

"That good may often come out of evil is well illustrated in some of the dairy conditions of New York," says a writer, signing himself H. S. M. in Country Gentleman. "A few years ago promoters invaded almost all sections of the State, getting up stock companies and erecting creameries. While their work was practically without exception disastrous financially to the stockholders, it was of great benefit to a large number of farmers, because it opened up a way for them to produce milk and have a place to make it into butter—in short to produce an additional income from their farms.

"So much for the good that has grown out of the work of the creamery promoter. Now for the evil; and this is decidedly unfortunate and in many cases disastrous all around. These creameries were often erected in localities where it was impossible to get enough butter to pay any dividend on their stock, and while sufficient business was being built up so that in time dividends might be paid, the inevitable wear and loss made it necessary, in order to keep alive, to levy assessments on the stock. The stockholders, to avoid or minimize these, have become averse to spending money for actual necessities. Hence there are a large number of creameries in bad condition, and on this account unable, with the best of workmen, to make and put on the market first class goods.

"This does two kinds of damage: First, it puts a good buttermaker in bad repute and sometimes out of business as a buttermaker. Second, it puts an inferior quality of butter on the market and not only brings financial loss to the patron but gives the locality and the State a bad reputation for first class butter. The promoters had no care for anything other than to put up and equip a plant in accordance with their contract and get their pay; hence very few of them paid any attention in locating to possible sanitary conditions or in fact to any other thing that should have been arranged for future benefit. Thus we find a good many of these creameries located in some of the worst of surroundings and built in such a manner that it is almost impossible to put them in proper condition; and since they have without exception cost nearly, if not quite, 100 per cent, more than they were worth, to spend more time and money to put them right is out of the question.

"I know of no remedy for these troubles except that somehow, somewhere, some time the stockholders of such creameries can be made to see that, while they have been badly mulcted, by taking hold of the matter in a business like way and putting their creameries up in proper shape, there may come a time when a business can be built up that will pay a dividend. Unless this can be done, the number that will go out of business will each year grow larger and the Empire Dairy State will suffer the disgrace of sheltering a lot of abandoned creameries."

Room for Progress of Dairy Farmers.
PROF. T. L. HAECKER, BEFORE THE MINNESOTA DAIRY ASSOCIATION.

No man is more fully equipped to speak authoritatively than Professor Haecker, who has delved deep into this important subject. He referred to a previous meeting held in Owatonna a decade ago and gave one of his timely addresses as follows:

I had then, I think, five years' work accumulated and I took the basis of that five years' work for my remarks. We have added ten years more to it and during all that time, as during the first half dozen years, we have been weighing the feed for every cow, have been weighing her milk, have been testing for butter-fat and we have kept the cows generally as long as they were fit for dairy work; so what I have to offer is not based simply on

Lost Strayed or Stolen—One Cow

That is about what happens each year for the man who owns five cows and does not use a Tubular cream separator. He loses in cream more than the price of a good cow. The more cows he owns the greater the loss. This is a fact on which Agricultural Colleges, Dairy Experts and the best Dairy men all agree, and so do you if you use a Tubular. If not, it's high time you



did. You can't afford to lose the price of one or more cows each year—there's no reason why you should. Get a Tubular and get more and better cream out of the milk; save time and labor and have warm sweet skimmed milk for the calves. Don't buy some cheap rattle-trap thing called a separator; that won't do any good. You need a real skimmer that does perfect work, skims clean, thick or thin, hot or cold; runs easy; simple in construction; easily understood. That's the Tubular and there is but one Tubular, the Sharples Tubular. Don't you want our little book "Business Dairyman," and our Catalog A.165 both free? A postal will bring them.

The Sharples Separator Co.
West Chester, Pa.
Toronto, Can. Chicago, Ill.

my notions, but on what the cows have told me during the last fifteen years.

THEY DO SOME BRAGGING.

We are sometimes prone to do considerable boasting in regard to the fine dairy products that we are having in this State, and sometimes when we listen to speakers at our various institutes and some of our public meetings we think there is no State in the Union like Minnesota for dairying. Now there is nothing to warrant such conclusion at all. We have reason to be very modest about the progress that we have made. It is true our buttermakers have secured a good reputation for the quality of our creamery butter, and I believe that we have the best lot of creamery buttermakers in the Union. I believe that they take more interest in their daily work on an average than the other buttermakers. This is evidenced from the fact that, without solicitation, a larger per cent of our buttermakers will exhibit at our annual exhibits and monthly contests, and it is very good evidence when a young man sends a tub to the convention, sends a tub to a monthly scoring contest, that that young man is studying the problem and he is interested in the quality of the product he is turning out. It is, therefore, a fair meas-

ure of the average interest that our creamery buttermakers are taking to judge from their exhibits; and not only that, but for the last half dozen years our butter shows higher averages than that of any other State in the Union. Now, when I have told you that I have told you about all we have to be proud of.

DAIRY FARMERS SHOULD PROGRESS.

The farmers of Minnesota have not made the progress the buttermakers have. In fact, for half the time that has elapsed since I have spoken here to an audience of this kind the farmers have been making a retrograde movement. Five years ago the farmers of Southern Minnesota were not dairying as intelligently from the cow's standpoint as they did five years before that. I am in a position where I can know the public pulse pretty well. I get letters from every nook and corner of the State. Five years ago when I used to get a letter asking for a sire, it asked for a milking Short-horn or a dual-purpose sire—nine letters out of ten asked for that kind of animal. Now I have not for two years received a single letter of that kind, but have received dozens and dozens that told a very sorry tale about having been misled and about animals that were not adapted to dairy work, and after breeding three or four or five years the owners were worse off than five years before when they used common stock.

SHOULD READ DAIRY AND AGRICULTURAL PAPERS.

Thirty-five per cent of the farmers do not read any dairy or agricultural paper, do not study the problem of milk production, the feeding or kind of cow that is best adapted for dairy work; but in every instance those who did study that subject, those who did keep some sort of note of the yield of their cows and who knew how they should be cared for and made some effort to care for them well received in round numbers double the amount from their cows that those did who did not study the problem, and so can endorse the statement made by Commissioner Slater that the greatest need to-day in Minnesota is education among the farmers in the problems of milk production, and the very basis of this is the cow that is adapted to that kind of work. There is not a farmer here, or a man in the audience that would take one of the Clydesdale horses and enter him in the race at the fair grounds; there is not one who would think of taking a running bred horse and hitch him on to a breaking plow, but they are doing a great deal of that sort of work when they come to milk production.

THE TYPE OF COW.

Now we find that there is a very close relation between the type of cow and her adaptability to dairy work. We find the cows that do the poorest in the dairy are those that are nearest to the beef type and, as a rule, we find

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This is the best and most profitable time of the year to buy a cream separator. You will save every particle of butter fat and make money from your dairy at a season when you are busiest and the price of butter is the lowest. If you own a New Iowa to aid you in your work. It is the perfect Cream Separator. Low down supply can enclosed working parts, perfectly sanitary, and by far the most beautiful and perfectly made Cream Separator in the world. Built like a watch.

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Send to us right away and get posted on this valuable information so that you can begin shipping cream to us and get your dairy department on the best paying basis.

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The Secret of Successful Farm Dairying

We have a book, which we have prepared with much time and expense, entitled "THE SECRET OF SUCCESSFUL DAIRYING, or Cream Shippers' Guide." We believe this is the best book ever issued for instructing the farmer about shipping cream. It tells how to do less work and make more money in this branch of farming: it tells why we don't have receiving stations and local agents, and why these stations are failures; it tells of the benefit of shipping direct to the creamery, how it is economical and profitable; it tells how we want to co-operate with you and how we make payments; it tells you from what distance you can ship cream and the kind of cans to ship it in; what kind of cream to ship; in fact, it tells everything the farmer wants to know about this business. We had a man who got one of these books last year say it was worth \$100 to him. We believe it is worth that much to every farmer. If you are neglecting your farm by not developing the dairy business, this book will tell you what you are losing. It won't cost you but one cent for postal card to ask for copy of this book. We are sure you would be willing to pay 100 times more to get a copy if you were to lose the one we send you.

that all the cows that do good work belong to the spare dairy type, they are all angular in their formation, all deep bodied and all show a very highly developed nervous organization. As a matter of fact, the farmer as a rule pays very little attention to these things. I have been questioned considerably recently as to what I thought about the public tests of dairy cows. Now, in view of this information that we have received from the statistics quoted, does it appear that it is the fault with the cow because 35 per cent of those dairymen only get 100 pounds of butterfat, or is it the fault with the farmer? If the fault is with the farmer, and it looks as though it were, had we not better have a farmer's test? Test the dairy qualities of the farmer instead of the dairy qualities of the cow?

The statistics also show that some of those herds are what we might call descendants from beef-bred cattle, that is they are not dairy bred but have done good work in the dairy. That simply means that the men who owned those cows carefully selected them and year after year would take note of which ones did poor work, weed them out and keep the good ones, and breed them to good bulls.

I believe that if every man in Minnesota would give special attention to the selection of his cows and would take special pains to keep the cows comfortable and feed them the nutriment that they need for milk production, in less than two years we could add 100 pounds of butterfat per cow. That is a pretty broad statement. We are getting about 135 pounds of butterfat a year, but I believe if the farmers paid special attention to the care of their cows we could raise that to 235 pounds on the average with the cows that they have. Now is testing the cow the greatest need, or is testing the dairyman the greatest need? According to the latest statistics we are getting about \$35 per cow now in the State of Minnesota. We have about 900,000 cows that we are milking and \$30 per cow means that our annual receipts are \$27,000,000. It is a big sum, it is the second largest manufacturing industry that we have in Minnesota, exceeded only by our milling industry.

With a cow census of 900,000 cows, supposing a cow gives about five pounds more butterfat a year, it earns in round numbers about \$1,000,000 extra, so it is a matter of very great importance that the farmers pay more special attention to using the cows that are adapted to their work; then the next problem for them is to study the art of feeding and caring for the dairy cow. I have here just a few little summaries to which I would like to call your attention. In the year 1896 I published a bulletin, wherein the cows were divided into two groups each year. I have two illustrations of the cows which represent each type; the dairy type cows on an average produced 359 pounds of butter, and the group of this kind of cattle which are what we may call "dual purpose" cows yielded 265 pounds. Now while we are making comparisons showing a tremendous difference in their yield, the average farmer can not get much over 150 pounds from that cow while we, by taking care of her, can get a great deal more, showing that there are great possibilities for the average farmer in the improvement of the cows that he has, and the chief reason why they do not give him 100 pounds more butterfat is not the fault of the cows but the blame is with the farmer in handling them. The next year the dairy type cows gave 446 pounds and the cows that have a tendency to lay on flesh averaged 303 pounds. The next year the dairy type cows gave 460 pounds and the others 371, until at the close of five years the dairy type cows averaged 399 pounds of butterfat while the other cows of that type averaged 258 pounds, being practically 104 pounds difference per year. THE TRUE DAIRY COW EARNS A STEER.

If you will do a little figuring on the different receipts from these cows, you will find that the cow that is adapted to dairy work as a rule earns

over and above the earning of the other cow enough to buy a cow or buy a steer ready for the market, so the idea that you have got to sacrifice dairy quality in order to have a steer from a cow that is not going to pay you any profit is very poor business policy; and I think it has not been shown, no man in any experiment station has been able to show that a beef-bred cow will produce a steer that will put on flesh with less feed and less cost than the dairy steer, and I have raised more dairy steers than any man in any experiment station in America. In other words, the dairy cow, so far as the figures go now, will produce as good a steer as the beef cow and will give you 150 pounds more butter besides. The excess in yield of the dairy-bred cow over and above the dual-purpose cow has been 141 pounds of butter a year and a less cost of production.

The Dairy Farmer and Sanitary Laws.

The growth of knowledge concerning the laws of sanitation is crowding the dairy farmer harder than any other class of agriculturists.

There is the question of the sanitary care of his cows and of their stable, both for the sake of their health and efficiency and the quality and safety of their product as a human food. Quality and safety confront him on every hand. The consumer of his product lives in cities and villages where of necessity these questions of sanitation are brought more sharply to the attention of people than in the country. They have their boards of health and strict laws and the more immediate contact of ideas one with another. All these bring their lessons, and lessons well learned, bring judgment and judgment establishes law. Now the dairy farmer finds that he cannot produce milk and cream, nor can the creamery produce butter that meets the best demand, from the old, easy-going, careless ways of handling cows, stables and the milk product.

This demand for purer food, is rising like a tide before the dairy farmer. How will he meet it? Like an intelligent man of course. Years ago Hord's Dairyman commenced telling the dairy farmer that he must look on himself, not as a producer, but as a manufacturer. He deals in milk, a manufactured product. The cow is his machine. If he does not keep his machinery in good order, down goes the quality of his product. Dealing with living machines he must understand something about the laws of good health in animals. He must know something about the action of bacterial growth in stables and in milk products, because, the people he sells to demand that he shall know these things. If he despises such knowledge, and refuses to be governed by its conclusions, then his troubles will increase. He may kick stoutly about testing his cattle for tuberculosis and call it all humbug, but there stands the demand staring him in the face. The consumer refuses to take his milk, unless it is from healthy cows. The buyer of live stock refuses to pay him a good price for his cattle unless they are healthy. The men who buy his hogs will refuse to take them unless the milk he takes to the creamery is from healthy cows, so that the skim-milk will not infect his neighbor's hogs or calves.

At the office of the Live Stock Sanitary Board in Madison, Wis., are the records of over one hundred herds of hogs where tuberculosis has been conveyed to them by drinking creamery skim-milk that came from infected cows. What are we, as dairy farmers, going to do with the insistent demand of all these merciless facts? Will ridicule and denunciation, and sneering at the work of science help us any? Will such talk help preserve the lives of our pigs and calves, or help sell our milk and cream in the cities?

And yet how simple is the right way, the way of courage not cowardice, the way of common sense. Let every man set his own herd in order, for his own sake, and then he will help everybody else. Let him refuse to

feed the infected skim-milk from other herds to poison his own young stock. Let him clean up and make healthy, and keep healthy his own stables. Let him govern his course by the conclusions of knowledge, not ignorance; courage, not cowardice; common sense, and not blind prejudice. This waiting for a law to make us act like intelligent men is a humbug. All we need is to know the truth; seek light not darkness; love cleanliness more than dirt; face the facts and not turn our backs to them. Whether we like it or not, whether we protest or not, the world is going to be governed in its daily life by the conclusions of sanitary science and the sooner the dairy farmer joins the procession the better will it be for him.

The New Iowa Cream Separator.

It is worth any reader's time to investigate carefully any new machine an old established and reliable firm may turn out.

It will repay any reader of this paper to look fully into merits of the new cream separator being put out by the Iowa Dairy Separator Co., at Waterloo, Iowa, the largest manufacturers of cream separators in the world.

This old reliable company are this season putting out a new separator which they call the New Iowa. It is a beautiful machine in design and has several prominent new features. Their machine is of the most modern pattern, equipped with a low supply can, all working parts inclosed in a curvical and strongly built frame. The gearing sets inside the frame beneath the bowl bringing the weight low in the machine and giving it an extra firm rigid foundation. In every way this new machine tends to bear out the claim of the manufacturers that they have succeeded in putting out the perfect cream separator.

This firm, on account of its conservatism which has always characterized its dealings, would hardly make such a statement unless their machine warranted it.

We believe that it would pay every reader of this paper to send for this company's catalogue and investigate fully the New Iowa Cream Separator. The advertisement for this machine appears on page 856 of this issue of THE KANSAS FARMER.

Tyra Montgomery, proprietor of the Larned Home Nurseries, Larned, Kans., offers for sale his nursery, a splendid opportunity for some young men who understand the business. It is well established with a splendid patronizing territory, and is sold for the reason that Mr. Montgomery is quite advanced in years and feels that he is entitled to rest. Look up his advertisement and write him for further information.

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Boise, gem of Idaho. Tourist's paradise. Abundant sunshine, flowers, hospitality. Largest hot springs natorium in the world, outlet of whole Boise Basin. Lavishly rich in minerals and agriculture. Write today to **Boise Commercial Club, Boise, Idaho**

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IF YOU ARE INTERESTED IN SOUTHERN OREGON write for 64-page book, profusely illustrated, describing beautiful resources. No frost damage to fruit in twenty-eight years. Address, Box 22 **MEDFORD COMMERCIAL CLUB, Medford, Oregon**

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The chief reason you want a separator is to get more cream—more money—out of your milk. Of course you want to get the most, and you naturally want the separator that gets the most cream.

U.S. GETS ALL THE CREAM
Holds World's Record for CLEAN Skimming

Marshfield, Vt., Feb. 2, '07.
I bought one of the—machines, but after running it a little while I found it was not skimming clean. I had it tested at the creameries here and found it to test 1 per cent, and I could not stand this so exchanged it for one of the U. S. machines, and find that if I had given the other machine away I should have made money by so doing. I like the U. S. very much.

ALMON TUCKER.

The U. S. is also the simplest, strongest, safest separator. Only two parts in the bowl—easy to wash. Gears turn in oil and run surprising easy. Lasts for many years with ordinary care. Let us tell you ALL about it. It's money in your pocket right away to know. Just write, "Send me new Catalog No. 91." The pictures tell the story. **FREE TO YOU.** Write today, addressing the **VERMONT FARM MACHINE CO.** Bellows Falls, Vt. "Eighteen Distributing Warehouses"

Difficult Breathing

Short breath, fluttering, palpitation, sinking spells are symptoms of a weak heart, struggling to do its work. It must keep the blood in circulation to carry nourishment to make flesh, bone and muscle, and remove the worn-out particles. When it cannot do this, it must have help. Dr. Miles' Heart Cure gives strength to the heart nerves and muscles, and increases the heart action.

"I am glad to say that I am so much improved in health. Dr. Miles' Heart Cure cured me when several doctors failed. I think no other medicine could do for me what Heart Cure has done. My case was bad; bad as it could be at times. I had difficulty in getting my breath, my heart beat so fast at times that I thought it impossible to live without relief; the pain was very severe in my left side, and my nerves were all unstrung. I had almost given up all hope of being cured, and I am sure I would not, if I had not taken the Heart Cure. I take great pleasure in recommending Dr. Miles' remedies to all who suffer with heart disease."

MRS. MARY C. HAHLER, Sullivan, Mo.

Dr. Miles' Heart Cure is sold by your druggist, who will guarantee that the first bottle will benefit. If it fails he will refund your money.

Miles Medical Co., Elkhart, Ind.

The Blossom House

Kansas City, Mo.

Opposite Union Depot. Everything first-class. Cafe in connection. Cars for the Stock Yards, the up town business and residence parts of the city and for Kansas City, Kansas, pass the door. Solid comfort at moderate prices. A trial will please you

VARICOCELE

A Safe, Painless, Permanent Cure **GUARANTEED**. 30 years' experience. No money accepted until patient is well. **CONSULTATION** and valuable **BOOK FREE**, by mail or at office.

DR. C. M. COE, 915 Walnut St. Kansas City, Mo.

Scotch Collies.

Fifty-seven Collie puppies just old enough to ship. Place your orders early, so you can get one of the choice ones.

Walnut Grove Farm, Emporia, Kans.

The name Keen Kutter and the trade mark which is on every tool in the

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Poultry Notes.

Many a brood of promising chicks are drowned in a drenching rain. The loss from this cause each season is very great. As soon as an approaching storm is seen the chicks should be called and put under shelter until the storm is over.

Everything else considered the birds that appeal to your fancy are the ones for you to keep. You may find in time that you have made a bad selection and can then try again. It is seldom wise for a beginner to select one of the seldom heard of breeds or varieties. Better choose one of the old reliable breeds.

Nine-tenths of the so-called poultry diseases are caused by lice. The birds or chicks become mopy and stand around, with no attempt to eat or hustle for something to eat. If they are small chicks they are usually doped with medicine for cholera or bowel trouble and if they are hens, they are thought to be crop-bound or egg-bound. Investigation, nine times out of ten, will reveal the fact that they are lousy. It is lice and not disease that is sapping away their strength and vitality. Of course, if the lice are permitted to infest the chickens, it will not be long before disease will get a foothold, but this is caused by the lice so weakening the condition of the birds that it becomes an easy matter for them to fall victims to the first disease which breaks out in a flock.

Ailing Chickens.

A strange disease is taking some of my chickens. The first thing noticeable about them is nervous or shaky legs. They finally become so they are unable to walk or use their legs at all. In this condition they lie around two or three days and then die. They keep up a good appetite and look well at their heads. They run at large and have plenty of shade. I keep them well supplied with fresh water. I fed them mostly on millet and kafir-corn until several weeks ago, and since then have given them only chopped corn. I have given them no medicine except Germoxone in their drinking water occasionally. Have kept the house free from mites, but I find some lice on their heads. Would you kindly advise me through the columns of THE KANSAS FARMER what to do for them?

MRS. G. B. LANDIS.

McPherson County.

Answer.—Those lice that you find on the heads of your chicks are undoubtedly one of the causes of their illness. If you will look under their wings you probably will find some red lice or chiggers. These sap the life-blood of young chicks and unless removed soon cause them to droop and die. Grease their heads and under their wings with carbolated vaseline or lard in which a few drops of carbollic acid has been placed. Spray their roosting place with lice-killer, and they soon will be well.

Pure-Bred Poultry Best.

MRS. LIZZIE B. GRIFFITH.

I have for years tried the common barnyard birds such as you see on most farms of to-day which are intermixed with every breed of birds imaginable and run out until they do not know what breed any of them are. I found these birds very unprofitable, not nearly paying for their keep, only laying a few eggs in early spring when everybody's chickens were laying and eggs a very low price. In taking these to market it was very hard to raise broilers because one can never get them uniform in size, and they do not command the highest price as their color and the color of the skin is not desirable. To my fancy they are very unsightly to look upon. The day will come soon I think when most farmers will realize the true value of keeping

pure-bred fowls, and not until then will the State or the United States realize the greatest yield in dollars out of the poultry of the country.

Were I going to keep birds for broilers or roasters I would choose one of the larger breeds for roasters, the Langshans, Cochins, or Buff Orpingtons being ideal roasters, while the Orpington, Plymouth Rock, and Wyandotte make fine broilers as do the Rhode Island Reds. And were I keeping for egg market only, the Minorcas, Leghorns, Houdans, and small breeds would be my choice. I keep my chickens almost wholly to supply eggs for hatching for those who want extra fine stock. I cull my birds down each year and only the finest are kept, and cocks and cockerels of only the very finest are kept for breeding purposes. I do not consider my judgment enough and will have a poultry judge to come and score and cull my flock after I have done all culling I consider necessary, and I can thus insure my customers the best that money can buy. I will another year have six varieties of pure-bred poultry to offer to the lovers of fine poultry; also a fine line of cockerels of the six varieties. I keep Langshans, two kinds, White Rocks, Rose Comb Rhode Island Reds, Cochins, and Orpingtons. I do not keep any of the smaller breeds, as for my use and trade I find the larger pay better, and where they are bred to lay, the larger breeds are the farmers' fowls.

I would not advise any one to keep more than one breed unless prepared with pens and poultry accommodation to give each breed wide range. Of course at this time of year and until about February 1 I allow them all to run together, but after that time they are confined to their own runs, only one breed having the range of the farm at a time. It costs no more to raise pure-bred fowls of the finest type than it does poor barnyard mongrels, and I believe not so much as I find the little pure-bred chicks stronger than the mixed bred. My chickens this year have realized me three times as much as I could ever get from my common birds, and I expect it to be six times as much again when I sell my crop of cockerels.

Some say, "Oh! you have to advertise and that costs so much." Of course you do, but what is a little advertising and what does the expense amount to when you consider the large sales one makes if we advertise in the right kind of a paper. About one-half the sales I made this year were made by the little advertisement which I had in THE KANSAS FARMER. I hope the day will come very soon when every farmer will realize the true value of pure-bred poultry.

Making Feathers Grow.

That the long-tailed fowl was early in Japan is credible from the legend, evidently of abysmal antiquity, of Ama Terasu, the Sun Goddess, who, having retired into a cavern, to the intense discomfort of the world, was nearly enticed out again by the crowing of a long-tailed cock—to remind, no doubt, that it was her usual hour to appear. Another somewhat ghostly evidence of the antiquity of the breed has been cited in the ho-o bird, which was pictured in Japan as early as the eighth century. This fabulous bird resembled both pheasant and peacock, but it has clearly the tail, and very luxuriant one, of the fowls of Tosa, in which every feather, as the poetical Japanese remarks, resembles a leaf-blade of the mystical bamboo.

It is known that in many kinds of birds certain feathers continue to grow until they are lost by molting, and in all birds it happens occasionally that a feather may be molted at an irregular time. Accordingly, it follows that if fowls can be secured which are irregular in their period of molting, let us say, the tail feathers, these will continue to grow longer for the reason that they have had a longer time in which to grow. From this beginning it is now possible to infer that by a process of carefully selecting and breeding from those fowls

in which the molting is suppressed in certain parts of the body, it would be possible to obtain a variety in which the tail feathers would be much longer than in other fowls.

A second but very important part of the process consists in feeding the bird to the maximum degree, in order to stimulate the growth of the feathers. At the same time, the bird should not be allowed to dissipate its energy by leading an active life, or to run unnecessary chances of breaking the constantly growing feathers. Thus I learned from the fanciers at Tosa that it is customary to confine the birds in relatively small cages and to feed them often and with peculiar food. Details of the latter I was unable to secure, although certain hints were given me as to the virtue of boiled unhusked rice, of an occasional crap of veal, and of diakon (giant radish) leaf. I fancy, though, that any kind of poultry food may be used. But in this regard one is cautious in drawing a hard-and-fast conclusion, because it is known that feathers are subject to modification in various ways dependent upon food. Thus the colors of the feathers of certain parrots have been strikingly changed by the South Sea Islanders, who feed the birds upon the fat of a peculiar fish. And canary birds are given a reddish color under special conditions, as by the fanciers in the Hartz Mountains.

In many cases, in order to avoid accident to the long feathers, each fancier finds it, I am told, convenient to coil up the longest feathers, and wrap and tie them carefully in soft paper, so that the bird runs a minimum chance of breaking them. High perches are emphatically advocated. I have been told, not on the best evidence, however, that in some cases the bird is confined in a tight cage, so that it is not possible for it to shift its position. In this cramped way, with the tail hanging down behind, a bird is said to be kept penned up miserably for periods of months. Certain it is that under favorable conditions, a cock whose tail measures five or six feet will rarely grow longer feathers. For, by active life, it is probable that a gradual molting of these long feathers takes place. On the other hand, molting is more apt to be suppressed by the unwholesome living of a bird during the process of over-feeding. If, accordingly, a cock whose tail feathers are of the normal maximum length is taken in training by a skilled fancier, he can, I am told, stimulate a growth in these feathers at the rate of about six inches per month.—From Professor Bashford Dean's "The Long-Feathered Fowls of Japan," in the Century Magazine.

Baker University.

Baker University is already recognized as the great college in Kansas in point of number of students in the college department, number of professors who devote themselves exclusively to college teaching and equipment for instruction in the college branches. It is now the purpose of the management to make Baker University a musical center. The new Conservatory building almost completed and this great auditorium in process of erection will furnish an equipment not equalled in the Southwest. The festivals already given these past three years indicate what can be done and are but the beginning of the great plans in the mind of the administration. And then too, there is an increasing interest in the Business College. The time is gone by when such institutions of learning are to be considered lightly. But they must be on a strong, scholarly and dignified basis and free from the clap-net methods so often employed by various independent and irresponsible "business colleges." The Baker University Business College will have a magnificent equipment and will be comfortably housed by next September. In the classes in History, English, Language, etc., the students of the Business College enter the regular classes in the academy and college. No person is permitted to graduate from the shortest course under one year and all are urged to remain two years. The day has gone by when an institution can honestly advertise to make a business man in a few weeks. It is also Baker's purpose to extend these courses of study. There are more demands for graduates of this department than can be supplied.

BUFF ORPINGTONS.

ORPINGTONS—1000 to sell to make room. Cal. res.—W. H. Maxwell, 1906 McVicar Av., Topeka, Kan.

S. C. BUFF ORPINGTON EGGS—Extra fine flock, headed by an 11-pound cockerel. 15 eggs (\$1.00). C. B. Owen, Lawrence, Kans.

CHOICE Buff Orpington and B. P. Rock cockerels, Collie pups and bred bitches. Send for circular. W. B. Williams, Stella, Nebr.

LEGHORNS.

PURE SINGLE COMB BROWN LEGHORN EGGS, 30 for \$1; 100 for \$3. Jos. Caudwell, Wakefield, Kans., successor to F. P. Flower.

FOR SALE—Single Comb White Leghorn cockerels. Wyckoff laying strain. Price, 75 cents and \$1. Henry Martin, Newton, Kans.

ROSE COMB BROWN LEGHORN EGGS—11 for \$1.50, 30 for \$2.50, 100 for \$4. Mrs. John Holzey, Bendena, Kans.

NOT TWO LATE to get a start of Hastings' Heavy Laying Strain of S. C. Brown Leghorns. Best of season, eggs 75c per 15; 2 sittings \$1.25; or \$3 for 100. L. H. Hastings, Quincy, Kans.

STANDARD BRED SINGLE COMB BUFF LEGHORNS—Headed by first prize pen, Chicago show 1903 and took six first prizes and first pen at Newton 1904. Eggs \$3 for 15. S. Perkins, 301 East First Street, Newton, Kans.

WYANDOTTES.

INCUBATOR EGGS from prize-winning White Rocks and White Wyandottes at \$5 per 100. W. L. Bates, Topeka, Kans.

BROWN'S WHITE WYANDOTTES—Ahead of everything; stock for sale; eggs in season. I have the English Fox Terrier dogs. Write me for prices and particulars. J. H. Brown, Clay Center, Kans.

RHODE ISLAND REDS.

LAYING STRAIN S. C. REDS—Old and young stock for sale. Eggs, one-half price after June 15. R. B. Steele, Sta. B, Topeka, Kans.

RHODE ISLAND REDS—Cockerels, S. C. R. I. Reds from prize winners. Red to the skin. Eggs in season. Good Hope Fruit & Poultry Farm, Troy, Mo.

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

PLYMOUTH ROCKS.

WHITE ROCKS—Some promising cockerels now offered at \$1 each. J. A. Kauffman, Abilene, Kans.

WHITE PLYMOUTH ROCKS—Exclusively pure white birds, farm range. Eggs \$1 per 15, \$1.50 per 30. R. J. Yust, Route 2, Sylvia, Kans.

BARRED AND W. P. ROCK EGGS—Hawkins and Bradley strains; 15 for \$2, 45 for \$5. Chris Barman, Route 9, Ottawa, Kans.

White Plymouth Rocks EXCLUSIVELY

Good for Eggs. Good to Eat. 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 express in any express office in the United States. Write to residence, adjoining Washburn College. Address: THOMAS OWEN, Sta. B. Topeka, Kans.

BLACK LANGSHANS.

American Central Poultry Plant

BUFF, BLACK AND WHITE LANGSHANS, SILVER SPANGLED HAMBURGERS, SILVER LACED, BUFF AND WHITE WYANDOTTES, SINGLE COMB, ROSE COMB AND BUFF LEGHORNS, BLACK MINORCAS, BUFF AND WHITE ROCKS, S. C. RHODE ISLAND REDS, BARRED ROCKS, BUFF ORPINGTONS AND LIGHT BRAHMAS. Also Bronze Turkeys, small Pekin ducks, Bona ducks, Toulouse geese and peacocks. Each variety kept on separate tract of farm. Write for free twenty-page catalogue giving prices on stock and eggs. Address: J. A. LOVETTE, Prop., MULLINVILLE, KANS.

PURE-BRED WHITE LANGSHANS for sale. Hens \$1.25, pullets \$1 each; also a few Silver Spangled Hamburg cockerels. Mrs. John Cooke, Greeley, Kan.

BRAHMAS.

Light Brahma Chickens

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

MISCELLANEOUS.

CHICK-O FOR BABY CHICKS—"Just the feed and all they need." A balanced ration of pure grains, seeds, bone, etc. Ask your dealer or write to headquarters. D. O. Coe, 119 East Sixth Street, Topeka, Kans.

AGENTS—To sell and advertise our Poultry Compound; \$25 weekly; rig furnished. Franklin Manufacturing Company, Norwalk, Ohio.

When writing advertisers please mention this paper.

The Talbott Poultry Farm

Breeders of the best in the world. Strain of Buff, Brown and White Leghorns, Barred Rocks and White Wyandottes. My birds have won at Chicago, Galesburg, Moline, Illinois, Fremont, Hebron and State Poultry Show of Nebraska, and they will win for you. 500 old birds for sale at \$1.50 each; also 1,000 youngsters at \$1.00 and up.

W. R. TALBOTT, Prop.

Hebron, Nebr.

Horticulture

Shawnee Horticulturists.

Shawnee County Horticultural society met on July 11 at Mr. J. M. Smith's, north of Topeka. The meeting was delightful and the attendance was large.

A. T. Daniels presided. Addresses were delivered by J. F. Smith on "Improving the Lawn," and B. B. Smyth on "Our Insect Enemies."

Frederic Skinner talked on "The Social Influence of Good Roads." He announced the offers of the Topeka Commercial club to give a series of prizes to the communities that construct the best and longest miles of dirt roads during 1907 between their neighborhood and the city of Topeka in addition to the amounts by the townships for the doing of work.

Pollom showed that in his town the amount of \$25 per mile of road was raised each year for the paving up of the roads and the construction of bridges.

H. Wallace spoke in favor of organization for improvement of roads.

P. Rude mentioned a stretch of road on the low ground between the Rochester macadam road and his place. By keeping it continuously worked by an ordinary road machine he was able in all sorts of weathering the winter and spring to haul loads of 4,000 pounds over it to his place.

C. F. Whitney was called upon by the society what we are to do for material for pies in the fall of our usual supply of fruit. He showed that with the abundance of pumpkins, pie-melons, pie-plant, and others, of which there is a good half acre in no immediate danger of rotting for want of pies.

G. F. Lux spoke on the condition of the flowers for the season. He exhibited some magnificent trusses of gladiolus, and handsome bouquets of gerbera, zephyranthes, hymenocallis, and Shasta daisies. He advocated raising perennials, because by growing one is almost always sure of a crop.

C. F. Whitney exhibited some fine specimens of pie-plant stalks, carrots, berries, and grapes.

Enough tickets were subscribed for members' excursion to Manhattan on July 17 to warrant the authorities in chartering a special train for the occasion.

The meeting closed with a vocal solo by Mrs. Smyth. B. B. SMYTH, Secretary.

Walnut Trees.

I have a question I would like to ask and have it answered soon in the columns of THE KANSAS FARMER.

I want to set walnut trees out around my farm of 160 acres. I thought I would plant the nuts. Shall I crack the nuts after removing hull and place them where I want trees to grow, and then shall I plant them? How far apart shall I plant them? Or would it be better to plant them in a parcel of ground and when they reach maturity, and when they reach maturity, transplant them? What time of year is best to plant the nuts?

D. R. KEITH.

The best results in growing walnut trees has been secured by planting the nuts in the fall, after removing the hulls, and covering them some three inches deep, being certain that the soil contains sufficient moisture to keep the opening of the nuts by the action of frost. As is well known, the husk or "meat" is intricately folded and is almost impossible to remove without injuring the germ. Some have sometimes stratified the nuts in a box of sand, placing first a layer of two or three inches thick, then a layer of nuts and alternating nuts and sand in a box twelve to eighteen inches deep. Care is taken to keep

the sand moist throughout the winter and the box in a location where it will be exposed to the action of frost. The nuts can be removed early in the spring and planted where desired and the danger of loss from nut loving animals is obviated.

The walnut seedlings make a very strong tap root, but the trees can be transplanted with fair success at one year old. They can be grown a longer time in the nursery row if the tap roots are cut at the end of the first season's growth and the trees root-pruned with a tree-digger or other means occasionally thereafter. In nursery work where the trees are to stand until some size it is a frequent practice to run the tree digger about the roots during each season, preferably during late fall or early spring. The most successful walnut groves that have come under our observation stand where the nuts were first planted, but walnut trees transplanted frequently, as mentioned above, have succeeded well. In planting nuts where the trees are wanted it is a matter of economy to plant more than will be required for a permanent stand. 50 per cent of a stand is very fair where the nuts are planted in the fall, and where nuts have been stratified and only the sound ones planted in the spring, 75 to 80 per cent is a usual stand.

The question of setting out single rows of trees along a road side is usually poor economy as it does not furnish the trees the conditions under which they thrive best and after the trees are well established it is believed to be extravagant in the use of land. A single row of trees 20 feet apart about a quarter section would require about 528 trees, which is equivalent to a stand of one acre 9 by 9 feet apart. This distance is somewhat greater than the best interests of young trees would require but at this distance trees should make good poles and posts before they would require thinning. With the two miles of trees set in a single row an area much greater than one acre would be utilized.

It is of course a question of taste and personal preference, but from the standpoint of the welfare of trees the grove method of planting is much better and more economical than the single row.

It is probably well worth while in selecting nuts for planting to select from well-formed trees that bear large sized nuts. ALBERT DICKINS.

Year-Round Demand for Oranges Now.

To the all the year-round demand for oranges—a demand that the California growers have met by propagating very early and very late varieties—is due the heavy fruit shipments reported from Los Angeles since the first of the month. The total shipments of oranges, lemons and grape fruit for the "season," which nominally but not actually ends July 1, is 24,464 cars, and there are still several thousand cars of fruit to be moved.

Increase in the quantity of California fruit shipments as well as the extension of the season throughout the hottest of the summer months made it necessary this year for the Southern Pacific to order 6,600 refrigerator cars. About half of these cars, the largest and most expensive ever built, are now in use and the remainder are coming from the shops at the rate of 25 a day. Not only the quickest transportation is demanded by the fruit shipper, but uniformly low temperatures in the cars must be maintained through some of the hottest parts of the country. In the new cars just put in service by the Harriman road such perfect refrigeration is provided that the temperature does not vary more than two degrees in ten days.

Even if the forecast that the additional acreage being planted will increase next year's orange crop by 8,000 cars proves true, the Southern Pacific expects to be in a position to handle its share of the traffic without difficulty owing to its unprecedented purchases of the kind of equipment demanded. Plans are also under way for the establishment of pre-cooling

plants, in which California fruits and vegetables will be cooled off before they are put into the cars.

Transplanting Sweet Corn.

A lady correspondent at Manhattan writes:

"The children and I are making the garden this year and are enjoying it very much. We have tried many new things to us which are perhaps old to others. Our latest successful experiment is transplanting sweet corn. On a town lot, one does not wish to waste growth. Our choice sweet corn needed thinning so we put some of the extra stalks in the potato row where there were some vacant spots. It is doing nicely so far. Have any of THE KANSAS FARMER readers ever transplanted sweet corn?"

Kansas Fairs in 1907.

Following is a list of fairs to be held in Kansas in 1907, 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; August 27-30.

Barton County Fair Association: W. F. Feder, secretary, Great Bend; September 10-13.

Brown County—The Hiawatha Fair Association: J. D. Weltmer, secretary, Hiawatha; September 3-6.

Butler County Fair Association: W. F. Benson, secretary, Eldorado; August 27-31.

Butler County—Douglass Agricultural Society: C. R. Alger, secretary, Douglass; September 12-14.

Clay County Fair Association: Walter Puckey, secretary, Clay Center; September 3-6.

Clay County—Wakefield Agricultural Society: Eugene Elkins, secretary, Wakefield; October 2-4.

Cloud County Fair Association: W. L. McCarty, secretary, Concordia; September 24-27.

Coffey County Agricultural Fair Association: S. D. Weaver, secretary, Burlington; September 9-13.

Cowley County Agricultural and Live-Stock Association: Frank W. Sids, secretary, Winfield; October 1-4.

Cowley County—Eastern Cowley County Fair: W. A. Bowden, secretary, Burden; September.

Dickinson County Fair Association: H. C. Wann, secretary, Abilene; October 2-4.

Elk County Agricultural Fair Association: E. B. Place, secretary, Grenola; September 25-27.

Finney County Agricultural Society: A. H. Warner, secretary, Garden City.

Ford County Agricultural Society: Nicholas Mayrath, secretary, Dodge City; September 4-7.

Franklin County Agricultural Society: Carey M. Porter, secretary, Ottawa; September 3-7.

Greenwood County Fair Association: C. H. Weiser, secretary, Eureka; August 20-23.

Harper County—Anthony Fair Association: L. G. Jennings, secretary, Anthony; August 6-9.

Harvey County Agricultural Society: J. C. Mack, secretary, Newton; September 24-27.

The Leavenworth County Fair Association: Stance Meyers, secretary, Leavenworth; September 17-21.

Linn County Fair Association: P. S. Thorne, secretary, Mound City; October 1-4.

Marshall County Fair Association: R. W. Hemphill, secretary, Marysville; October 1-4.

McPherson County Agricultural Fair Association: H. A. Rowland, secretary; September 2-7.

Miami County Agricultural and Mechanical Fair Association: Geo. R. Reynolds, secretary, Paola; October 1-4.

Mitchell County Agricultural Association: Ira N. Tice, secretary, Beloit; October 2-5.

Montgomery County—Coffeyville Fair and Park Association: A. B. Holloway, secretary, Coffeyville; August 13-16.

Nemaha County Fair Association: Chas. H. Herold, secretary, Seneca; September 11-13.

Neosho County—Chanute Fair and Improvement Association: A. E. Timpane, secretary, Chanute; August 20-24.

Ness County Agricultural Association: Thos. Rineley, secretary, Ness City; September 11-13.

Norton County Agricultural Association: M. F. Garrity, secretary, Norton; August 27-30.

Osage County Fair Association: F. E. Burke, secretary, Burlingame; September 3-6.

Reno County—Central Kansas Fair Association: A. L. Sponsler, secretary, Hutchinson; September 16-21.

Republic County Agricultural Association: W. R. Wells, secretary, Belleville; September 10-13.

Rice County Agricultural and Live-Stock Association: F. L. Goodson, secretary, Sterling; September 10-14.

Riley County Agricultural Association—W. B. Craig, secretary, Riley; August 20-23.

Rooks County Fair Association: E. L. Williams, secretary, Stockton; September 10-14.

Saline County Agricultural, Horticultural, and Mechanical Association: B. B. Stimmel, Jr., secretary, Salina; September 24-27.

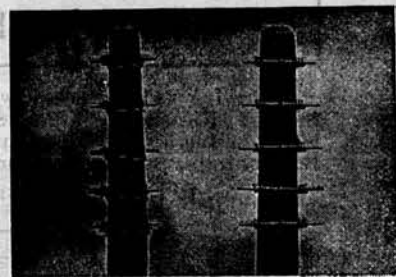
Shawnee County—Kansas Exposition Company: R. T. Kreipe, secretary, Topeka; September 9-14.

Sheridan County Agricultural Association: Miles Gray, secretary, Hoxie; September 3-6.

Smith County Fair Association: H. C. Smith, secretary, Smith Center; August 20-23.

Stafford County Fair Association: G. W. Grandy, secretary, St. John; August 23-30.

Wilson County—Fredonia Agricultural Association: V. L. Polson, secretary, Fredonia; August 6-8.



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Weather Bulletin

Following is the weekly weather bulletin for the Kansas Weather Service for the week ending July 23, 1907, prepared by T. B. Jennings, Station Director.

DATA FOR THE WEEK.

	Temperature			Precipitation		
	Maximum	Minimum	Mean	Departure from normal	Total	Percent of normal
WESTERN DIVISION.						
Ashland	92	63	78	...	2.84	73
Colby	90	63	78	...	...	...
Coalgate	100	58	78	...	0	93
Dodge City	93	66	79	+1	0.04	-0.86
Dresden	98	56	74	...	0.13	46
Farnsworth	99	55	76	...	0.05	83
Goodland	100	53	77	...	0.25	85
Hoxie	100	56	78	...	0.50	48
Norton	99	52	76	...	0.12	61
Scott	97	53	75	...	0.13	89
Wakeeney	96	59	78	...	0.94	...
Wallace	102	50	75	...	0	...
Division	102	50	76	...	0.40	74

MIDDLE DIVISION.						
Clay Center	100	63	80	...	0.60	...
Coldwater	91	67	79	...	1.59	71
Concordia	97	60	78	0	0.02	-0.81
Eldorado	92	68	80	...	1.20	57
Ellinwood	92	62	78	...	3.34	61
Hanover	100	58	78	...	1.73	...
Harrison	99	54	75	...	0.92	74
Hays	94	62	76	...	2.00	82
Hutchinson	92	68	80	...	2.14	58
Larned	92	60	76	...	1.08	...
Macksville	90	56	76	...	2.94	...
McPherson	94	67	80	...	1.87	43
Minneapolis	95	63	79	...	0.84	60
Norwich	89	67	78	...	2.23	60
Phillipsburg	100	55	80	...	0.03	70
Pratt	91	60	76	...	4.18	80
Russell	93	63	76	...	3.25	76
Salina	99	54	80	...	1.48	...
Wichita	93	67	80	+2	2.23	+1.56
Winfield	94	65	82	...	1.10	43
Division	100	54	78	...	1.77	65

EASTERN DIVISION.						
Atchison	95	65	80	...	3.25	63
Burlington	94	68	80	...	1.15	...
Columbus	95	70	82	...	0.39	77
Cottonwood Falls	96	67	80	...	0.05	...
Emporia	94	60	80	...	0.73	...
Escondido	95	61	76	...	0.48	50
Eureka	...	...	...	...	1.49	...
Fall River	94	70	81	...	1.16	71
Fort Scott	93	65	80	...	1.21	72
Frankfort	99	60	80	...	2.04	84
Garnett	91	68	80	...	1.92	71
Greeley	91	69	80	...	1.59	63
Horton	93	63	78	...	1.60	...
Independence	100	72	84	...	0.83	64
Iola	92	70	80	+2	0.86	+0.09
Kansas City	94	67	80	+2	4.50	+3.56
Lebo	95	68	80	...	0.73	64
Madison	94	67	...	...	1.57	...
Olathe	93	67	79	...	0.86	...
Osage City	98	73	82	...	0.19	...
Osawatomie	94	71	82	...	0.38	86
Ottawa	96	66	80	...	0.06	87
Paola	95	62	80	...	1.20	...
Pleasanton	91	63	80	...	0.30	83
Sedan	92	68	81	...	1.06	92
Topeka	95	63	80	+2	1.19	+0.12
Valley Falls	92	63	78	...	6.39	53
Division	100	60	80	...	1.44	69
State	102	50	79	...	1.34	69

DATA FOR STATE BY WEEKS.

Week ending.	...	...	...	...	...	...
April 6	67	18	54	...	0.12	...
April 13	93	15	49	...	0.06	...
April 20	80	12	44	...	0.15	...
April 27	89	16	51	...	0.27	...
May 4	88	5	44	...	1.42	...
May 11	90	30	54	...	0.65	54
May 18	95	17	62	...	0.46	76
May 25	97	37	70	...	0.13	79
June 1	93	30	55	...	0.68	79
June 8	101	36	67	...	0.56	33
June 15	103	41	75	...	1.02	81
June 22	98	39	73	...	1.51	62
June 29	100	40	73	...	1.69	64
July 6	103	52	78	...	0.36	92
July 13	104	53	77	...	0.70	79
July 20	102	50	79	...	1.34	69

With a mean temperature of 79° the past week was the warmest this season, the higher maxima were recorded during the two preceding weeks. Although the day temperatures in the western counties this week were higher than those in the eastern counties the nights were enough cooler to render the mean temperature of the western counties lower than that of the eastern portion of the State. Some cloudy days occurred early in the week, with much clear sky the latter part. The average sunshine for the week being nearly normal. The precipitation fell during the first days of the week, the latter half of the week being dry and hot, and the average precipitation for the State was somewhat above normal it was unevenly distributed, the western division receiving not more than 11 per cent of the total while the middle division received 45 per cent. The heavy rains flooded low lands in Atchison, Jefferson, Leavenworth, and Wyandotte Counties in the northeastern part of the State, and in Clark, Pratt, Stafford, Barton, Russell, and Ellis Counties in the central portion of the State, Big Creek reaching its highest stage, in Ellis County, in 30 years.

EASTERN DIVISION.

KANSAS FARMER CROP REPORT.

The week began cool and rainy, and ended warm and dry, the lowest temperatures occurring generally on the 14th and the highest on the 19th. The rainfall was generally light in the western division, in a few counties in the eastern division, and in Cloud in the middle division. A heavy hail injured corn in the southeast part of Graham County. With few exceptions the corn is in splendid condition. Harvest is generally over except in the northern counties where it is well along. Stacking and thrashing were interfered with by the rains.

EASTERN DIVISION.

Atchison.—Intensely warm Friday and Saturday but the breezes tempered the heat.
Chase.—The weather is quite favorable, except that a little more rain is needed.
Cherokee.—Getting a little dry for good growth, as corn rolls some in midday.
Coffey.—Very favorable weather; corn growing rapidly since Sunday's rain.
Elk.—Good rains have fallen this week with seasonable weather.

Johnson.—Haying is progressing nicely; corn needs rain but it not suffering; weather very seasonable.
Montgomery.—Higher temperatures prevailed this week, with good rains on the 14th and 17th.
Shawnee.—Corn is in fine condition and though late, gives strong promise of a large crop; it is generally five feet high or over, is well rooted, good color, and the earliest is tasseling. Meadows are in flourishing condition and pastures are fine.

MIDDLE DIVISION.

Barton.—Very heavy rains, over three inches; corn in fine condition; wheat harvest nearly over—but some wheat not cut yet, hands scarce.
Butler.—Rain came in time to help crops, all of which are looking well.
Clay.—Weather has been dry for some time but the rains this week have broken the drought.
Coville.—A fine week for all crops.
Dickinson.—Ground is thoroughly moistened; corn is in perfect condition.
Ellis.—Much bottom land flooded.
Geary.—Wheat thrashing postponed on account of the rains.
McPherson.—Fine growing weather; corn making rapid growth; rains great-

ly benefited meadows and pastures but delayed thrashing.

Phillips.—Getting dry in central part of county.

Pratt.—Too wet to cultivate corn or stack wheat.

Reno.—The rain was timely as corn was needing moisture; corn has a good stand, good color, and is growing rapidly.

Clark.—Showery and warm; rank growth of all kinds of vegetation.

Graham.—A heavy hail in the southeastern part of the county damaged the corn.

Lane.—Rain is needed very much; hot winds blew during the afternoons of Thursday and Friday.

Norton.—Plenty of moisture for present need; crops look fine.

Scott.—Heavy fog Monday; harvest pretty well over.

Sherman.—A warm week.

Gossip About Stock.

B. H. Helde, General Superintendent of the International Live-Stock Company, Chicago, writes THE KANSAS FARMER that the preliminary classification for 1907 will be ready for distribution

rain and sunshine occurred.

Cowley.—Weather conditions were ideal. Sufficient rains fell on the 4th and 7th, maximum temperatures of 90° or above occurred on every day but the 15th and the minima generally ranged in the seventies.

Ellis.—The rainfall was excessive, amounting to two inches. Temperatures, especially during the last three days, were high.

Ellsworth.—Rains on the 14th, 15th, and 18th amounted to 1.73 inches. Temperatures were highest the latter part, the weekly mean being about normal.

Jewell.—Maximum temperatures ranged from 79° on the 15th to 99° on the 19th and minima from 54° on the 17th to 65° on the 19th. Showers on the 14th, 15th, 17th, and 18th furnished all the moisture needed.

Kingman.—Conditions were very favorable. There was plenty of rain and temperatures were seasonable.

McPherson.—Rains falling on the 14th, 15th, and 18th amounted to 1.87 inches. Both day and night temperatures were uniformly high.

Ottawa.—Timely rains fell on the 14th and 18th. There was plenty of sunshine and temperatures were seasonable.

Pawnee.—An excessive amount of rain has fallen during the past two weeks and all streams are very high. The last three days were quite warm.

Phillips.—Three weeks have passed since a good rain has fallen and the ground is getting dry. The latter part of the week was hot, with a maximum of 100° on the 19th.

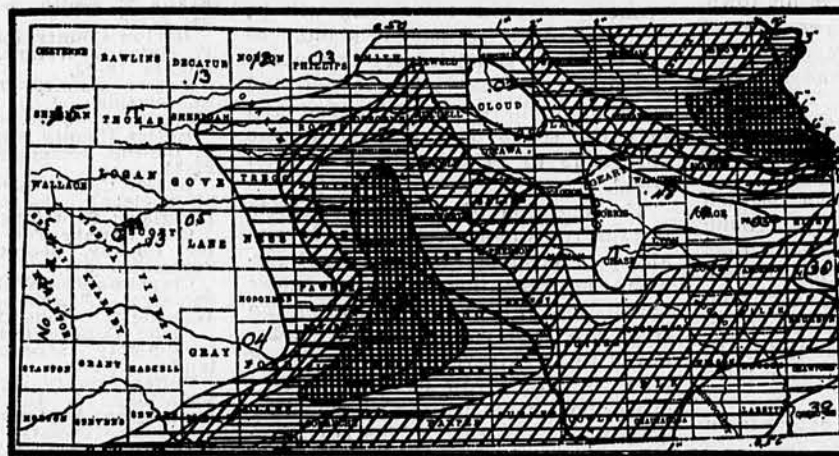
Pratt.—Over four inches of rain fell this week and the excessive moisture has delayed outdoor work. Temperatures were seasonable.

Reno.—The rains, which fell on the 14th, 15th, 17th, and 18th, amounted to 2.14 inches. Temperatures were seasonable and the weather partly cloudy.

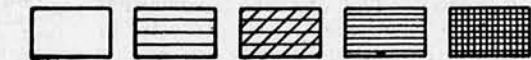
Russell.—Two heavy rains fell on the 14th and 18th. Maximum temperatures were generally below 90° and minima ranged in the sixties.

Salina.—Rains on the 14th, 15th, 17th, and 18th were followed by high temperatures, the maximum being 99° on the 19th.

RAINFALL FOR WEEK ENDING JULY 20, 1907.



SCALE IN INCHES:



T. trace.

ceeding 90° only on the 19th.

Johnson.—The week was very warm. The rain, which fell on the 14th, 15th, 16th, and 17th, amounted to 0.86 of an inch.

Labette.—Temperatures rose steadily as the week progressed, minima ranged in the seventies. A good rain would now be beneficial.

Linn.—Temperatures averaged slightly above normal, the latter part being warmest. On the 17th a rain of 0.30 of an inch fell.

Lyon.—Showers on the 14th and 17th aggregated 0.73 of an inch. The temperatures averaged 2° above normal.

Marshall.—Plenty of moisture was received in rains on the 14th, 15th, and 18th. Maximum temperatures ranged from 84° on the 15th to 90° on the 19th.

Miami.—The week was ideal. Plenty of sunshine, rainfall, and warm weather occurred.

Montgomery.—Higher temperatures prevailed this week, the maximum being 100° on the 19th. There was plenty of rain.

Osage.—The rainfall was but 0.19 of an inch, there was plenty of moisture from the rains of the preceding week.

Shawnee.—Very favorable summer weather was experienced this week. Good rains on the 14th and 15th furnished all the moisture needed and temperatures averaged 2° above normal, the warmest day so far this summer being Friday, the 19th. There was plenty of sunshine and moderate southerly winds prevailed.

Wabunsee.—Showers, amounting to 0.48 of an inch, fell on the 13th, 14th, 15th, and 18th. Considerable cloudiness occurred and temperatures were seasonable.

Wyandotte.—A heavy rain and thunderstorm occurred during the night of the 14-15th, doing considerable damage and raising the river above the flood stage.

MIDDLE DIVISION.

Barton.—Rains, amounting to 3.34 inches, fell during heavy thunderstorms on the 14th and 18th. Maximum temperatures ranged from 85° to 92° and minima from 62° to 72°. Two days were clear and five partly cloudy.

Butler.—A fine rain of 1.20 inches on the 14th was of much benefit. Temperatures were uniformly high.

Clay.—Ideal weather obtained. Rains, amounting to 0.60 of an inch, fell on the 14th and 18th, minimum temperatures ranged in the sixties and maxima of 90° or above occurred on all but two days.

Cloud.—A good rain has not fallen for three weeks and is now much needed. Temperatures were below normal the fore part, but rose considerably towards the ending.

Comanche.—Seasonable temperatures and plenty of

Sedgwick.—Temperatures averaged 2° above normal and the precipitation amounted to 2.28 inches, with ample sunshine.

Stafford.—Heavy rains, amounting to 2.94 inches, fell on the 14th and 18th. Maximum temperatures ranged in the eighties and minima in the sixties.

Washington.—Plenty of rain was received on the 14th, 15th, 16th, and 18th, the total being 2.32 inches. Maximum temperatures ranged from 85° on the 15th to 100° on the 19th.

WESTERN DIVISION.

Clark.—Showers on the 13th, 14th, 15th, 17th, and 18th amounted to 2.34 inches and, in connection with the warm weather that prevailed, were very favorable. Four days were clear, two partly cloudy and one cloudy.

Decatur.—The week began and ended warm, but maximum temperatures below 80° occurred on the 15th and 16th, with a minimum of 57° on the 15th. The rainfall was light.

Ford.—The week was clear, with temperatures averaging one degree above normal. The rainfall, though very light, was all that was needed.

Hamilton.—The days were all clear except the first and quite warm, the highest temperature being 100° on the 18th. Minimum temperatures ranged from 67° on the 15th to 70° on the 19th. No rain fell.

Lane.—The week was warm and dry, with hot winds on the 15th and 19th. Rain is now needed very much.

Norton.—Traces of rain fell on the 14th and 15th and 0.12 of an inch on the 17th, being all the moisture that was needed. The week began cool, but ended with a temperature of 99° on the 19th.

Scott.—The week ended warm, dry, and clear, the weather as a whole being very favorable. There was a heavy fog on the 15th and a high south wind on the 18th and 19th.

Sheridan.—The week began cool, with half an inch of rain on the 14th, but the last three days were hot and clear, with temperatures of 98°, 100°, and 99° respectively.

Sherman.—The days were hot, but the nights pleasant. Maximum temperatures ranged from 90° on the 15th and 16th to 100° on the 19th. The rainfall was rather light, but 0.25 of an inch falling.

Thomas.—The week was deficient in rainfall and the prevailing wind was from the southeast.

Trego.—Rains on the 14th and 15th amounted to 0.74 of an inch, being all that was needed at the time. The all the nights were cool, the last three days were hot.

Wallace.—The week was hot, dry, and windy. On the 18th and 19th the maximum temperature was 102° and on the 20th it was 100°. Minimum temperatures, however, were all below 70°. No rain fell.

In a few days and copies of the pamphlet will be mailed to any address on application and mention of THE KANSAS FARMER.

Kansas City Grain Market.

Receipts of wheat in Kansas City today were 279 cars; Saturday's inspections were 146 cars. Prices were unchanged to 1/4c lower early, but the bulk of sales were general to 1c higher. There was a good general demand. The sales were: Hard wheat—No. 1, 1 car 86c, 4 cars 85c, 6 cars 84 1/2c; No. 2, 3 cars 84 1/2c, 3 cars 85c, 3 cars 85 1/2c, 14 cars 85c, 1 car 84 1/2c, 13 cars 84c, nominally 84 1/2c; No. 3, 4 cars 83 1/2c, 2 cars 83c, 5 cars 82 1/2c, 1 car 81c, 1 car 80 1/2c, 3 cars 80c, 3 cars 79c, 2 cars 77c, nominally 76 1/2c; selected, 1 car 75c, 1 car 74c, 1 car 70c; live wheat, 1 car 77c, 1 bulkhead car 68c. Soft wheat—No. 2 red, 2 cars 84c, 3 cars 83 1/2c, 7 cars 83c, 3 red, 1 car 83c, 6 cars 82 1/2c, 15 cars 82c, 4 cars 81 1/2c, No. 4 red, 1 car 81 1/2c, 4 cars 80c, 2 cars 80c, nominally 77 1/2c. Mixed wheat—No. 2, 1 car 84c, 1 car 83 1/2c, 2 cars 83c, 3 cars 82c; No. 4, 1 car 81c, 1 car 79 1/2c. Receipts of corn were 54 cars; Saturday's inspections were 15 cars. Prices were unchanged to 1/4c lower. The sales were: No. 2 white, 1 car 49 1/2c; No. 3 white, 5 cars 48 1/2c; No. 4 white, 1 car 48c, 1 car 45c; no grade white, 1 car 45c; No. 2 mixed, 1 car 49 1/2c, 9 cars 48 1/2c; No. 3 mixed, 6 cars 48c, 1 car 48 1/2c; No. 4 mixed, 1 car 48c, 1 car 47 1/2c.