

KANSAS FARMER

For the improvement of the Farm and Home

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HOT WATER IN FARM KITCHEN

Device So Simple No One Need Be Without This Convenience

NO SINGLE convenience can add more to the comfort and well being of the farm family than hot and cold running water in the farm house where needed. After living for a time in a house equipped with running water the family will wonder how they ever got along so long without this modern convenience. Nothing so lightens the burden of the farm woman as this one thing of having all the water she needs without the necessity of carrying it in from the outside and then having to carry it out again. Complete plumbing systems are rather expensive, requiring as they do a modern piping system to keep them from freezing in cold weather. In spite of this, however, many farm families could well afford to put in a system of running water in view of the labor saved and the added comfort and convenience every member of the family.

For those who cannot afford the more complete system of water supply there is need for an inexpensive plumbing device for supplying hot and cold water at the kitchen sink. Such a system was worked out a few years ago by W. A. Etherton and explained in detail in a bulletin of the engineering experiment station of our Agricultural College entitled "Inexpensive Plumbing for Farm Kitchens." The device is so simple and so easily installed even in houses already built, that there is little excuse for not having an abundant supply of hot and cold water in the kitchen at least. Three years ago when Mr. Etherton was testing out this inexpensive system the additional cost of material and installation where it replaced an ordinary pitcher pump and not including the sink and drain was about \$5.

The device in its simplest form is a step between the pitcher pump at the kitchen sink and the attic tank system of plumbing as commonly installed, and, like the pitcher pump, it is intended for use only in connection with cisterns or shallow wells near the house. It can, however, be used over a well too deep for a house pump if the well is placed directly under the pump so that the pump cylinder can be lowered to within twenty-five feet of the surface of the water. It can also be used to some advantage in connection with a gravity pressure system of water supply. It can be used further, and with but slight changes, in supplying hot and cold water to additional fixtures in the kitchen or adjoining rooms.

The apparatus involves no new principle of plumbing. All that is unusual in its makeup is the combination of ordinary pipe fittings and cocks, which when put together make a new kind of pump spout. It is unique in the following respects:

2. The system can be drained easily and completely to prevent freezing without wasting the water in the range boiler.

3. Hot, cold, or warm water, as the kitchen worker may need it, can be had through the pump spout.

4. The pump can be primed by a very simple operation.

5. Very little of the plumbing work is concealed, and, for the simplest installation, but one hole need be cut for it. In fact, the apparatus is portable, and the tenant who will provide his own plumbing rather than do without it can easily move this device and set it up in another house. It would be well, however, to have a written agreement with the owner of the place to that effect as he would probably have a legal claim on the plumbing if it was installed without such agreement.

6. Excepting makeshifts, it is the cheapest scheme yet devised for piping hot and cold water to the kitchen sink. All of the materials required for it can be bought for about double the cost of a cistern bucket pump which it may replace.

7. The apparatus is very simple. The several parts can be purchased from local plumbers or from plumbing supply houses and put together by the farmer "on the job" or the apparatus may be made up at the plumbing shop or supply house and then disconnected at the union couplings as may be necessary for transportation.

Operations Explained

The apparatus, in its essential parts, consists of a force pump and its suction pipe to the cistern or well; a range boiler; a water front in the kitchen range; or a separate water heater; the

pipes and fittings connecting these three elements; a three-way cock; an air cock; and a drain cock under the boiler.

With the exception of the spout there is nothing unusual in the pump. Any house pump that is suitable for forcing water into an attic storage tank is suitable also for this plumbing device by which water is forced directly through a range boiler.

The range boiler need differ from that in common use only in the omission of the small siphon hole in the boiler tube. This is placed in the ordinary water system to prevent siphoning in case a break occurs in the water main or house supply pipes. It is not needed in this system.

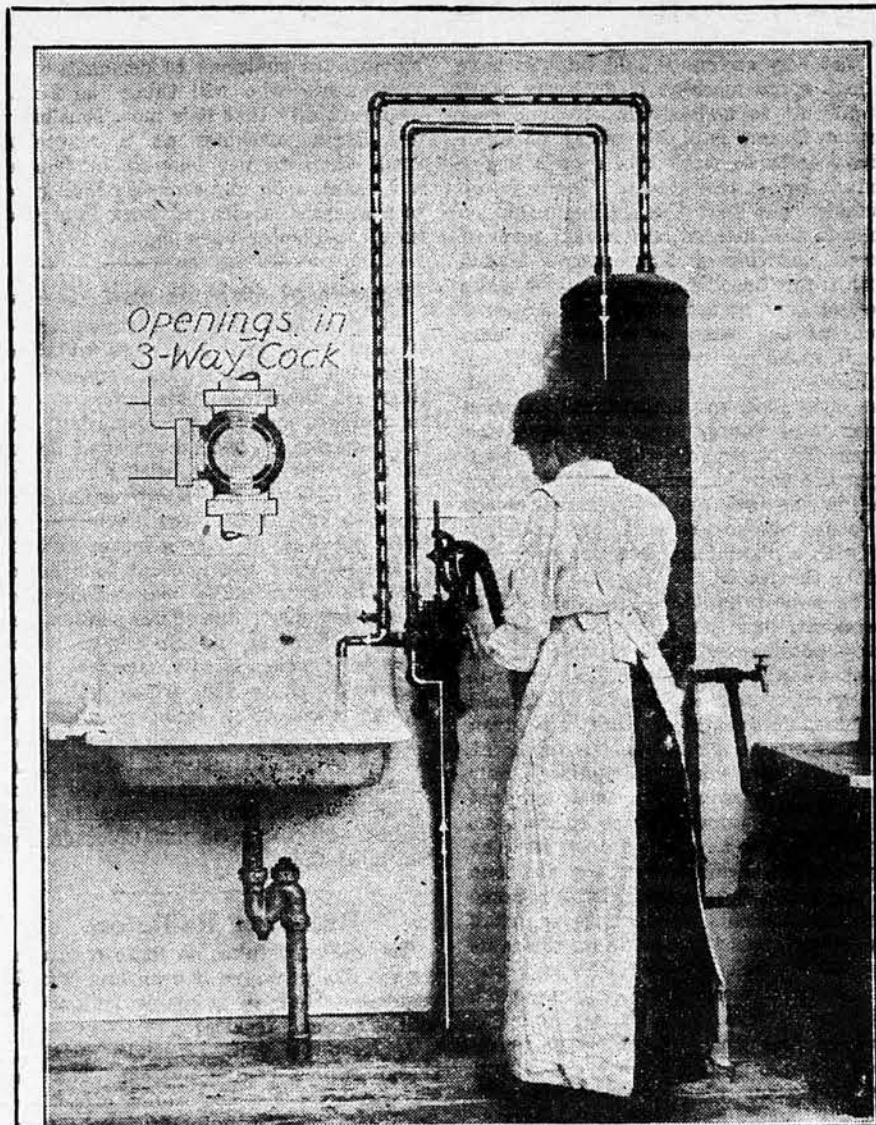
The three-way stop cock is not commonly used in house plumbing, but it is a common article in steam fitting work, and it may be found in stock in all plumbing-supply houses. It is so called because of its three openings, or ports. With a single movement of the handle any one of these ports can be closed and the other two opened, or all can be closed.

In the cut on this page the three-way cock is in position for pumping hot water. The woman is working the pump and forcing cold water through the pipe to the bottom of the boiler and hot water from the top is being forced through the pipe leading to the sink. The solid white line with the arrowheads indicate the movement of the cold water from the well or cistern, and the dotted line and arrow heads the movement of the hot water.

By turning the three-way cock so that the lower port connecting with the cistern is closed, warm water may be drawn by siphoning without working the pump. All the operator has to do is to open the little air cock just above the pump spout. This permits air to pass through the pipe to the surface of the water in the boiler and the warm water will be siphoned from the bottom of the tank through the other pipe.

In pumping cold water into the sink the handle of the three-way cock is pointed upward. This closes the upper port of the stop cock leaving the other two ports open. This is the position the handle of the valve should have between different operations, so no adjustment of the cock is necessary to get cold water. All the operator has to do is to pump, the water passing directly from the cistern to the pump spout and into the sink.

We trust this brief description here given of the inexpensive device for adding the great convenience and comfort of hot water to the farm kitchen will lead many of our readers to obtain the bulletin from the engineering experiment station at Manhattan and take steps to install this convenient and thoroughly practical system.



PUMPING HOT WATER.—NOTE POSITION OF OPENING IN THREE-WAY COCK.—SOLID LINE SHOWS MOVEMENT OF COLD WATER; DOTTED LINE, HOT WATER

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MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

High or Low Speed?

THERE is more or less discussion these days as to which is the most desirable for a farm tractor—high or low working speed, or in other words is it better to pull a light load and travel fast or a heavy load and travel slow? For years most of the older concerns manufacturing tractors have designed them to run at approximately the same speed as a horse walks, only a trifle faster, that is, from one and three-fourth to two and one-half miles an hour on plowing speed. Some manufacturers who have entered the business recently claim that this speed is too slow and have designed their outfits to run much faster.

It is believed that very few farmers consider the arguments in favor of the higher speed tractors sound, since their own experiences and observations along this line must have proved to them that these high speeds are not desirable for most farm operations, but perhaps the following points have not occurred to some.

First, let it be clearly understood that any manufacturer can build a high speed tractor if he deems it desirable and advisable. It is no more difficult to build a tractor geared so as to travel at high speed than one to travel at say two miles an hour. But as the speed increases the load pulled must decrease in proportion so no gain whatever is made in the amount of work done by a given power of engine. Most of the companies which have had considerable experience in building tractors and other farm machines believe that the speeds which have been most common during the past fifteen years are still best suited for this work, at least when used with the plows and other farm tools now on the market which have been designed to work at the walking gait of a horse.

Just why anyone should want to have a high speed machine to do heavy work is difficult to understand. No one ever saw a farmer haul his wheat or other heavy crops to market in a light buggy drawn by a fast team. There is no question but that the hauling could be done in this manner, and a fast team of horses drawing a light wagon loaded with a few bushels of grain might make several trips at a fast pace in the same time as the same or a heavier team would make one trip at a walk with an ordinary farm wagon and a real load, but it is plain the horses would expend much more energy in making the extra trips. To be sure the farmer would enjoy more trips by using the light wagon and driving fast, but his principal object is to accomplish his work, and speeding up with a light load does not help him out in the least.

The same principle is involved in field operations such as plowing. It is entirely possible to build a light tractor which would pull only one plow and run at say eight miles an hour. This could do the same amount of work in a given time as would a machine traveling at two miles an hour and pulling four plows. The amount of power required to do a given amount of work, however, would be considerably greater for the high speed machine than for the one traveling at the low speed, first, because the light machine would have to make four trips across the field to do the same amount of work as the slow speed machine would accomplish in one round, and second, because at the higher speed the power is not generally applied as efficiently as in the slower speed machines, the soil being moved much more violently than is necessary and frequently being moved to a much greater distance than is required. Any power exerted in moving the soil farther than is absolutely necessary to accomplish

the desired result for the operation being carried on, or which throws part of the soil against other soil harder than is necessary, is just so much wasted power which must be paid for in the fuel bill.

Furthermore, plowing at high speed with ordinary plows generally makes a poor quality of work, to say nothing of the greater wear and tear on both plow and tractor.

One argument sometimes offered in favor of the high speed machine is that since it does not pull so heavy a load as a low speed machine of the same engine power it can be made much lighter, and so will not pack the ground so much. The fallacy of this argument is obvious. In the first place it has been clearly shown by the investigations carried on by the United States Department of Agriculture that even the heaviest types of tractors do not pack ordinary soils sufficiently to injure the crops, but, on the other hand, do frequently improve the crop where the wheels have run. But the wheels on most of the light tractors are smaller, in order to help reduce weight, so that the amount of weight per square inch of bearing surface is usually no less than on a large size tractor, in fact on many of them it is even greater. Furthermore, since the light weight machines do not pull as wide implements they must make proportionately more trips over the field hence making many more tracks and in the aggregate packing a slightly greater amount of the surface than is done by heavier machines with their fewer trips.

There are many other points which could be brought out in a discussion of this subject, such as greater danger of accidents, wear and tear on tractors and implements, etc., but it is believed that those made, together with others which are obvious to anyone who considers the matter, are sufficient to demonstrate to any farmer who will think the matter over carefully that it is more sensible to use larger machines at a reasonable speed than to use smaller implements and count upon unreasonably high speed to accomplish a piece of work in a given time. —Tractor Farming.

Speeds of Pulleys and Gears

It is a fact that the circumference of a pulley or gear is always 3.1416, or approximately three and one-seventh times its diameter. This makes it easy to compute speeds by considering only the diameter of both driver and driven pulleys. For example belting from one six-inch pulley to another gives the same speed to both, but if the driving pulley has a diameter of sixteen inches and the driven pulley a diameter of four inches then the driven pulley makes four complete rotations to one of the sixteen-inch pulley. If the small pulley is made the drive pulley, then it will make four revolutions to cause the driven pulley to revolve once. The same general rule applies to gears if the pitch diameter and not the outside diameter is taken. Also instead of the pitch diameter the number of teeth in the gears may be considered.—FRANK P. GOEDER, Colorado Agricultural College.

Rules for Radiators

The radiator takes so little care that we are likely to give it even less than it requires. Here is a simple rule which will give good results:

1. Keep it full, especially with a thermo-siphon cooling system. The less the water the less the cooling effect and the worse for the motor by overheating.
2. Keep it full when using alcohol in winter. The smaller the volume of mixture, the sooner it boils and evaporates.
3. Keep it full.

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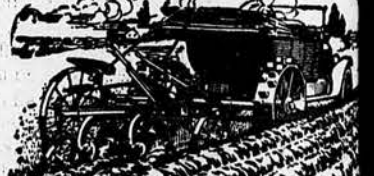
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SELLING STORED FOOD

Large quantities of stored food products are being seized and put on the market as one of the measures designed to lower the cost of living. Over-zealous officials may actually increase the average price of certain commodities to the consuming public unless this method of lowering prices is used with some degree of common sense. Cold storage of such products as eggs, butter, meat, etc., during periods of large production is one of the developments of modern times which has been of great benefit not only to the consuming public but to the producer as well. It is true business men invest their money in these vast reserves of food products because they can make a profit by doing so, but it is not a service for which the public can afford to pay a reasonable profit. The goods are bought in the open market when the immediate consuming demand might not warrant heavy buying. This serves to give the producer a market for his products in periods of heavy production. For the consumer it means the storing of products which might be wasted and result in prohibitive prices during the period of low production. The storage of food products is a legitimate business and a most useful one. There may be instances of hoarding for the specified purpose of boosting prices and these should be brought under control. The editor of the National Stockman and Farmer, of Pennsylvania, comments as follows on the wholesale confiscation of stored food products:

"Now come forth the over-zealous official, the pee-wee politician, the wide-mouthed orator, the hysterical woman, the sensational press and others who lack understanding and utter 'words without knowledge.' They call this legitimate business of storing foods 'hoarding,' they denounce those who engage in it as 'gamblers' or worse, and they demand that the stored foods be brought out and sold. They have no more respect for the rights of storers who have put their money into these products than a Russian 'Red' has. They have no more idea of providing for future needs than a grasshopper has—and no more conception of the disastrous effect of confiscation of food supplies. As a result of their clamor some foods in storage have been seized and more may be. If this tendency continues the country will face a food shortage next winter that will make all previous shortages look like trifles. Never before was there greater need of sanity on this subject or less evidence of it."

FARMERS ARRESTED

Seven farmers acting as officers of the Ohio Co-operative Milk Company were arrested a few weeks ago in the night and held over in a filthy city jail for the action of the grand jury. These men had been guilty of selling the milk of the organization to milk dealers of the city. They were charged with profiteering when as a matter of fact the milk was being sold for less than the cost of production if allowances were made for the farmer to receive a living wage. Similar indictments are now pending in a number of cities. In appearing before the House Agricultural Committee on the matter of the proposed anti-profiteering law, John D. Miller, representing the National Board of Farm Organizations, appealed for the right of the farmer to bargain collectively. He pointed out that farmers are confronted with a situation which

makes it necessary for them to form organizations to sell their products. He said:

"They must bargain collectively, or they could not bargain at all; they could only accept the price which the great organizations of middlemen that control the agencies through which their food must go to the consumer dictate to them."

The committee has finally agreed upon the following as a tentative statement of an amendment clearly giving farmers the legal right to bargain collectively: "That nothing in this act shall be construed to forbid or make unlawful collective bargaining by any co-operative association nor other organ-co-operative association or other organ-or other producers of farm products respecting the products of land owned, leased, or cultivated by him."

A vital principle is at stake and the Washington representative of the National Board of Farm Organizations is urging that every farmer, through petition, by the ballot, or by other lawful or orderly means makes his protest known against the unfair and un-American

methods being used against him, demanding early action by Congress and legislatures making clear the original purpose of our anti-trust laws so that by unmistakable terms farmers shall have the right to do collective bargaining in accord with the original intent of the law.

DAYLIGHT-SAVING LAW REPEALED

Congress, by a vote of 223 to 101 in the House and 57 to 19 in the Senate, passed the bill repealing the daylight-saving law over the President's veto. The repeal was not a party measure, so this overriding of the President's second veto was not the act of a Republican majority rebuking President Wilson, but the expression of public sentiment against tampering with the time as fixed by natural laws. Probably on no single measure have farmers been so united in sentiment, and even city labor, which the new time was claimed to benefit by giving an extra hour for productive work in the back-yard garden, was not united in its support. In his veto the President maintained that the advantages to production in the indus-

tries more than counterbalanced the inconvenience and loss to the farmer. It seems he must have been wrongly advised, for no investigation has been made showing this to be a fact.

MILITARY TRAINING IN CONGRESS

A most determined effort is being made to establish a system of universal military training in this country. Organized farmers have already gone on record against this program. The latest opposition to the Chamberlain-Kahn conscription bill was voiced by the National Guard Association at its annual conference in the Seventy-first Regiment Armory in New York City. This wholly unexpected attack has taken the forces favoring the military program by surprise. Every member of the House and Senate Military Affairs Committees received a telegram stating definitely and explicitly that the men who carried the day at Chateau Thierry and in the Argonne are in no mood to trifle with permanent peace-time training and conscription in America. We believe our readers will appreciate having this message in full. It was as follows:

"Four million veterans of the great war are a sufficient nucleus for the organization of any army which may be required for some time to come.

"The American people will not tolerate the ruthless abandonment of a policy which created a great civil army which answered the call, never flinched in the face of the severest fire, and whose record of achievement stands as a guarantee of its ability to handle any situation which may confront it.

"The Chamberlain-Kahn bill abolishes the citizen soldiery of the United States which public sentiment demands shall be the backbone of its military strength; and, at a time when the people are struggling under the burden of excessive taxation, creates at enormous expense the machinery for the establishment in America of that detestable Prussian system which is abhorrent to the American people.

"The League of Nations and the Chamberlain-Kahn bill can never go hand in hand.

"Either the League of Nations is a snare and a delusion or there is no necessity for the passage of the Chamberlain-Kahn bill.

"The Chamberlain-Kahn bill is the swan song of the General Staff. Failing utterly in its efforts to secure necessary recruits for the regular army it now attempts in time of peace under the guise of a universal service bill to resort to conscription, and to seize from their homes the youth of America for service in the regular army in the Philippines, in Hawaii, in Porto Rico, in the Canal Zone, and even in Russia, should the military dictator created by the provisions of this vicious bill determine that the emergency demanded it.

"The Chamberlain-Kahn bill destroys and places a stigma upon the citizen soldiery which bore the brunt of fighting as shock troops, and creates a centralized military oligarchy with dangerous potentialities for political abuse, and the destruction of the freedom which is vital to the existence of the country.

"Therefore the National Guard Association of the United States, through its officers, executive and legislative committees in conference assembled, representing that great body of citizen soldiers whose record of efficiency entitles it to the fullest measure of support, opposes the passage of the Chamberlain-Kahn bill."

ATTEND THE BIG FAIRS

FAIRS and expositions have long been exponents of agricultural and social progress. A big fair properly conducted and in full sympathy with the people can accomplish great results along these lines.

During the first half of September two of these comprehensive exhibitions of agricultural progress, each well deserving the patronage of the citizens of the state, will be held in Kansas. You cannot afford to stay away from these big fairs. You miss a splendid opportunity for inspiration and uplift if you do not attend.

The big fair brings out exhibits of the best agricultural products of the state and even from several states in the case of live stock. It serves as a place to demonstrate all the various forms of agricultural production.

As an educational institution and a place for recreation the big state fair is in a class by itself. At no other place can you see and study so comprehensively the progress that has been made in live stock development. New ideals in live stock form and production will be established, and this means progress. The animals at home will be judged by higher standards and the scrubs and inferior individuals will be given their proper ranking as a result of the study given to live stock such as will be on exhibition at these big fairs.

Manufacturers of farm and home equipment of all kinds go to great expense to show their wares. Demonstrations will be given and every effort possible will be put forth to show fair visitors exactly what the different machines and equipments will do to save labor and add to the comfort and convenience of the home and the farm.

These fairs are so big and comprehensive that you cannot expect to see everything that is shown. If you go with that idea, you will not benefit as much as you would if you make your plans beforehand and spend your time in carefully studying the exhibits and departments in which you are more interested. It will help if you will take a notebook with you for jotting down things to which you may wish to refer later. Memory is too treacherous to be trusted.

The big fairs of Kansas are conducted on a high plane. Public opinion now insists on that sort of a fair. Ideals in fair management have been greatly raised in recent years. The big fairs as now conducted reflect real agricultural progress. Why not get your share of the benefits coming from these splendid educational institutions by spending several days in attendance?

MORE LIVE STOCK STATISTICS

Estimates of Stock in Country to Be More Frequent and Detailed

LIVESTOCK statistics of the United States Department of Agriculture have not up to the present time been of much use to the producers of the country. A single estimate in January each year showing how many head of the various kinds there are in the United States and one estimate showing losses from disease has been the extent of the work to date. Announcement is now made that the whole system is to be changed and expanded. It is promised that as soon as the machinery can be got in operation by the Bureau of Crop Estimates, there will be twelve livestock estimates a year instead of one. Instead of being made for the forty-eight states they will be made for the 3,000 agricultural counties in the United States. Instead of showing that there are so many horses, so many cattle, so many sheep, and so on, they will be made by age and sex classifications, that is, they will show what proportion is breeding stock, what proportion growing stock, and what proportion "marketable stuff." They will show quality as well as numbers—the proportion of purebred animals, of grade animals and of scrubs.

A great deal more than that, even, is to be done under the new system. These surveys will show, besides actual live stock figures, a great many things pertaining to and effecting the livestock industry. They will show how many silos there are and what they contain, how much feed is on hand and in prospect, available for feeding to livestock; and the condition of pastures and ranges throughout the United States. This showing will be made every month in the year.

Pasture Knowledge Vital

The last-mentioned item, that of the condition of pastures and ranges is of much greater importance than might at first thought appear. Leaving all of the others out of account for the moment, it should result in considerable increase of livestock production as well as increased profits to a great many livestock men. It will make possible quick shifts of live stock from sections where, for some reason, the pastures are short to other sections where for the time being the supply of pasturage is much greater than required by the livestock on hand.

Almost every year somewhere in the United States great numbers of cattle and sheep suffer for lack of pasture, fail to put on weight, and, if they do not die, are finally sold at a considerable loss to their owners. At the same time that this is going on, multiplied millions of dollars' worth of grass goes to waste in various other sections of the United States, because the supply of livestock on hand is not sufficient to eat it.

The average farmer who makes livestock a side line, or even one of his main lines, plays safe in the matter of pasture. The number of head of live stock he carries is the number he knows he can carry safely if conditions should happen to be such as to cut his pastures short. Very rarely does he carry the maximum number that would be possible with his pastures at their best or even at normal. It happens therefore when his pastures are exceptionally good and even when they are normally good, he has considerably more grass than is needed by his livestock.

With reliable monthly reports from the Government each month, showing just the condition of pastures everywhere, the feeder or range owner who finds himself short of grass should have little difficulty in distributing his cattle where there is abundance of grass, keeping his young and poor stuff from going to the slaughter pen before they are ready and generally making his business more profitable and more satisfactory.

All of the other items in the new program of the Bureau of Crop Estimates are equally important, and some of them are vastly more so. The publication monthly of reliable figures showing the livestock situation the country over should result practically in putting the livestock business of the farmer on a more secure basis. The livestock dealer always has the means of getting, on his own responsibility, a pretty accurate survey of the situation, but the farmer has no access to those sources of information. When the Government gives him the figures that are promised he will be on an equal footing with the buyer.

If there were ever any doubt as to the ability of the Department of Agriculture to obtain quickly and accurately country-wide information on present and prospective food supplies, the doubt has been dispelled. The war emergency demonstrated the matter very clearly. During the two war years, 1917 and 1918, the department estimated in advance of the planting season the acreage that farmers intended to plant to food crops. In both years these preplanting estimates came within three per cent of the final figures. In 1918, when for the first time it was possible to check up accurately on wheat, the department's estimate came within two per cent of the wheat production, as shown by the quantity used for seed and total

receipts at mills and elevators as reported by the Grain Corporation of the Food Administration.

Such figures, authoritative and unbiased, are a prerequisite to the most intelligent program either of production or of marketing. They prevent the issuance of biased and misleading reports by speculators. They tend to stabilize prices by giving advance information of overproduction or underproduction. The certainty of supply resulting from dependable Government reports reduces the carrying risk of buyers and dealers, and enables them to pay better prices than would be possible otherwise. The Government reports enable transportation companies to estimate tonnage and to provide cars when and where they are needed. They give bankers the information necessary in providing funds for financing farmers in the production of their crops and, after harvest, for buyers and distributors of crops. They enable manufacturers to know, months in advance, what materials should be contracted for in order than farm machinery, equipment, and supplies may be made available without annoying and expensive delays.

There is just one class of men injured by the Government crop reports. They profit by the ignorance and uncertainty of others.

Those facts have long been realized as to the Government reports on field

crops. Now they are to become equally true as to livestock.

To Show "Commercial Production"

A number of other things are to be done under the new program. One will be to show, not merely total production, but commercial production as well. That is, the crop reports will show not only how much of a given commodity is produced on the farms, but how much leaves the farms and goes on the market. The price of anything is not determined by the quantity of that thing produced on the farm, consumed on the farm, or wasted on the farm, so much as by the marketable surplus—the portion that actually leaves the farm and becomes a factor in supply and demand in the open market.

Another important thing that will be a little longer in coming is the actual taking of a farm census every year instead of using as a basis of all figures the last preceding ten year census. This is to be accomplished by using tax assessors as gatherers of basic farm figures. About thirty States have already passed laws requiring assessors to do this work, the returns to be made to the State commissioner of agriculture and to be checked up by the state field agent of the Bureau of Crop Estimates. In States where such laws have been passed, they are, for the most part, new and are not yet fully in effective operation. The Department of Agriculture expects, however, that similar laws will be passed in all other States and the plan put in complete effective operation throughout the United States within the next five years.

A great deal of work is being done, also looking to closer co-operation between the Federal Department of Agriculture and the state departments. Such co-operation results in combining the facilities of the two organizations and using them for the issuance of a single monthly crop report for the state instead of two. Co-operative agreements have been entered into in Wisconsin, Ohio, Illinois, Iowa, Nebraska, Missouri, Georgia, Alabama, North Carolina, West Virginia, Arkansas, Utah, and Idaho, and are under consideration in many other states.

Elevated Tanks for Water

One of the most common methods of obtaining running water in the house and about the yards is by means of the elevated tank, says a Colorado writer. This system may be used with a shallow or deep well. A force pump or gasoline engine is necessary. The tank is usually galvanized iron (which is better than wood) is located on an elevated tower outside, in the attic of the house, or in the barn loft. A disadvantage of the elevated tank is that the water becomes warm and stale in summer. All pipes above ground should be wrapped with burlap rags or tar paper, then surrounded by a box at least six inches square so the space between the pipe and box may be filled with shavings, sawdust, excelsior, straw.

The packing should be kept dry and should not be packed solid because dead air spaces are necessary to prevent the pipe from freezing. Some of the towers which support water storage tanks are enclosed giving some room for storage below.

Silage Ten Years Old

The following was taken from the National Wool Grower of July 1919: "A silo was recently opened up in Australia, that had been filled with corn in April 1909, just ten years ago. It is reported that the silage was in excellent condition and was eaten by the stock with great relish." Silage is an insurance against feed shortage.

BETTER SIRES--BETTER STOCK

THE first organized crusade in a large country to improve all its live stock simultaneously will get under way in the United States October 1.

ITS SLOGAN—Better sires, better stock.

ITS AIM—To hasten the replacement of the multitude of scrub domestic animals with pure-bred or high-grade stock and to improve the quality of pure-breds themselves.

ITS MAIN METHOD—Use of only good pure-bred sires in breeding. Sires in many cases to be owned co-operatively or exchanged.

LIVE STOCK INCLUDED—Cattle, horses and asses, swine, sheep, goats, and poultry.

AGENCIES CO-OPERATING—The United States Department of Agriculture, the state agricultural colleges, state live stock officials, live stock associations, county agents, farmers' organizations, agricultural and live-stock journals.

REASONS FOR CAMPAIGN—Quality and productive capacity of the average American farm animal are still low. Millions of farmers are wasting time and money on animals that give less returns for the same expenditure than would better stock.

PUBLIC CO-OPERATION—More than 500 live stock specialists have made suggestions on the plan of campaign. Further constructive ideas and suggestions from any source will be welcomed by the United States Department of Agriculture. The following statements embody about nine-tenths of the ideas advanced by the specialists:

Plan simple enough to be easily followed.

Federal department's chief interest will be to reinforce work of states and counties, not to concern itself with local details.

Department's energies mainly along educational lines, although many suggestions of legislation against scrub sires have been made.

Plan includes everyone who keeps any kind of domestic live stock, from the boy or girl with a few chickens to the extensive ranchman or breeder of live stock.

Scrub pure-bred sires as well as common scrubs should be eliminated.

Feeding and care fully as important as good breeding.

Local agricultural leaders in every community to decide whether campaign shall be intensive or conducted slowly.

Department to keep records of progress by counties and announce results periodically. States to be furnished with records, which they may keep as they desire.

Emblems to be furnished keepers of pure-bred sires of good quality in all their classes of live stock; an official recognition of meritorious effort, but not a guaranty of the quality of live stock.

Emphasis on the use of good pure-bred sires rather than on ownership.

Individual benefits and more efficient production to be stressed, rather than increased number of animals.

Each county to follow its own ideas as to the kind of stock its farmers should keep.

Farmers who do not care to take part will be asked to let their children do so.

The plan of campaign interferes in no way with any work in live stock improvement now being conducted, but makes all the work more definite and effective by providing official recognition for progressive breeders.

RURAL CREDIT FOR PRODUCTION

Farmers Need Personal Credit on More Favorable Terms

WE ARE in great need of an improved system of farm credit in this country—a system through which a farmer may finance his production credit requirements more efficiently and economically than he is now doing through our present deposit bank system. Farming is our basic industry and it is undercapitalized to an extent that limits production. There can be no greatly increased production until there are more adequate credit facilities. The men needing capital for production purposes must be able to secure the money needed at a moderate rate of interest or they cannot properly finance their business and expand it to the proportions economic conditions demand. The present rural credit law does not meet the need. It can only help the landed men. Our federal land bank law has provided cheap land mortgage credit for the purchase of land, but personal credit on more favorable terms is needed even more than mortgage credit. In fact land values in some sections are already inflated to the breaking point.

In Europe rural credit systems for production are entirely distinct from land credit systems. The next step in the development of our financial machinery should be the creation of a rural credit system adopting the best features of the several European systems. Several plans have been proposed for establishing some sort of personal rural credit system. A thorough and effective investigation of this subject should be one of the duties taken up by congress at the first opportunity.

"Agricultural credit properly applied is the soundest credit and yet agricultural credit has received the least thought of financiers," said Clarence Ousley, Assistant Secretary of Agriculture, in welcoming to its Washington conference the agricultural committee of the American Bankers Association. "No greater public service," he said, "can be rendered to the United States and to the general welfare of all the people than mastery of this problem and leadership in work toward supplying the prime need of farmers."

"The only hope of a reinforced and abundant agriculture is a profitable agriculture which young men will seek as they seek other vocations that promise substantial reward, and as the day of cheap land has passed the prime necessity for multiplying farm home ownership is financial accommodation and sound business practice for worthy young men in order that they may acquire the initial capital for farm purchases."

"While our new system of farm credit is affording much relief to those who have farm property to improve and those who have some capital with which to buy, it should be understood that the great class of tenant producers are without property or capital. Their need is operating credit in order that they may produce economically, and in order that they may acquire something with which to purchase farms. As every boy is a potential man and will be a strong man or a weak man accordingly as he is nurtured, so every tenant is a potential owner and he will become a substantial success or a derelict accordingly as opportunities are provided."

Agriculture Never Defaults

"Agriculture taken as a whole is the one unfailing vocation of man because it is a process of nature aided by man's endeavor, and nature never defaults or goes into bankruptcy. Panics may disrupt commerce and popular uprisings may destroy governments, but the earth never fails to produce. There may be drought here or flood there; disease may decimate a flock or pests may destroy the crops in a region, but even these misfortunes fall short of impairing the

industry or disheartening the average producer. A member of this group a year ago told me that his bank had renewed the loans of farmers for three years during an unprecedented drought, and had finally collected the debts with negligible loss. I doubt whether the same number of commercial and manufacturing debtors would have endured such losses and settled without resort to the discounts of the bankruptcy court. Farmers are sometimes slow in paying their debts, because as a rule they are not trained in the business methods which require prompt liquidation at the maturity of an obligation, but the farmer of industry and character pays sooner or later."

Living by Farming

"Agriculture never offered such attractive opportunities as now to the man who is content to acquire a competence as distinguished from the man whose greed is never satisfied," said Mr. Ousley. "But," he continued, "there is a

notion among those not engaged in agriculture, but who are fed and clothed by its products, that the farmer is under a moral obligation to produce so abundantly that his products will be cheap."

"In many communities which draw their principal support from agriculture," the Assistant Secretary declared, "the man who deals in the farmer's products or sells the farmer his supplies enjoys a cheaper rate of interest and more generous accommodation than the producer enjoys. In many such communities the farmer's operating credit is furnished by the merchant. Thus, in agriculture the fundamental business of producing the material is neglected by banks, while in other industries, both the fundamental business of production and the collateral business of handling or selling are equally accommodated by the banks, and generally the manufacturing industry, by reason of its basic character, enjoys a more favorable credit than the hand-

ling or selling business. If agriculture is as I affirm, a sound basis of credit, then the honest and industrious producer should receive generous accommodation.

"The disadvantage which the farmer suffers is not, I am sure, the result of purposeful discrimination, but it is none the less discrimination and it produces in many instances a feeling of despair which disheartens effort to practice better business methods."

Uruguay Purchases Purebreds

Four prominent live-stock breeders from Uruguay recently visited this country and purchased a number of pure bred animals for shipment to South America.

The visitors were: R. Reissig, inspector for all livestock record associations in Uruguay; A. Terra Arocena; B. Fernandez, and H. Fernandez, all well known breeders of Uruguay. These men, accompanied by L. B. Burk of the Bureau of Markets, United States Department of Agriculture, visited sixty-five leading Shorthorn, Hereford, and Angus herds in Wisconsin, Iowa, Kansas, Missouri, Illinois, Indiana, Kentucky, and Ohio. They purchased for export to Uruguay twenty-one Herefords, including six bulls and fifteen heifers; fourteen Shorthorns—three bulls and eleven heifers; three Angus—two bulls and one heifer; and six Holsteins. The ages of these animals ranged from seven to twenty-two months, the buyers preferring young stock because certain sections comprising about one-third of Uruguay are infested with the Texas fever tick, and young animals are better able to resist attacks of fever. However, the Uruguay ranchmen are practicing dipping against the tick as is done in the United States. The Hereford bull "Woodford 30th" was purchased from E. H. Taylor of Frankfort, Ky., for the President of the Society Rurals of Uruguay, the price paid being \$7,000.

The visitors stated that they were highly pleased with their trip and with the quality of the cattle they saw. Uruguay has been importing about 350 Hereford and 150 Shorthorn bulls from England each year, and the visitors stated emphatically that since seeing American herds they believe American cattle are superior to the English-bred cattle. However, in order to convince the breeders of Uruguay of this fact, they said it was necessary that they take back with them animals that will demonstrate the quality of American cattle at their leading shows.

The Uruguay visitors in leaving expressed regret that they would miss the American show season, but said they expected to return to the United States to purchase a much larger shipment of cattle next February.

The following men, representing beef-cattle breed associations, extended every courtesy and assistance to the visitors in aiding them to locate and buy good specimens of the various breeds at reasonable prices: F. W. Harding, Secretary American Shorthorn Breeders Association; Charles Gray and T. E. Davis, Secretary and Field Agent of the American Aberdeen Angus Breeders Association; and R. J. Kinzer, Secretary of the American Hereford Breeders Association.

Heavy Horses Still Scarce

While there is a surplus of light horses on the farms of the United States, there is still a notable deficiency in heavy, desirable draft horses, say horsemen of the United States Department of Agriculture. Last year, they say, there was a tremendous decrease in mares bred, but during the spring of 1919 a very large percentage of good mares were bred, which is expected largely to meet the future demand for horses of the better type.

County Purebred Dairy Herd

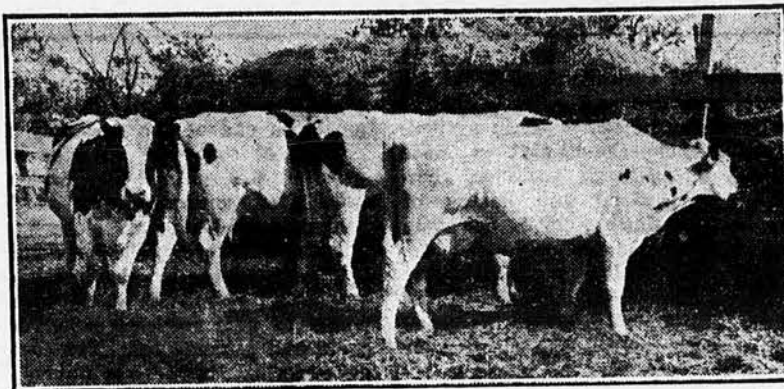
SEDGWICK County recently placed the foundation stock for a pure bred dairy herd on its county farm. Public institutions in Kansas are coming to recognize that it pays in dollars and cents to keep improved dairy stock instead of depending on scrub animals to supply the milk and cream needed.

The Sedgwick County Farm Bureau through its agent E. J. Macy is operating with the county commissioners in establishing this dairy herd of improved breeding. Mr. Macy assisted in making the initial purchases and hauled the four cows bought to their new home in a trailer behind his Ford. In the illustration these cows are shown in their new home. Three are registered Holsteins and one is a high grade. They were selected from the herds of F. H. Bock, H. H. Dowd and Geo. B. Appleman, each breeder furnishing one registered cow and Mr. Dowd the grade in addition. These cows are of exceptionally good dairy type and being under five years of age have a long period of usefulness before them. Each cow is capable of producing at least twenty pounds of butter a week. In a few years the county farm should have a high-product-

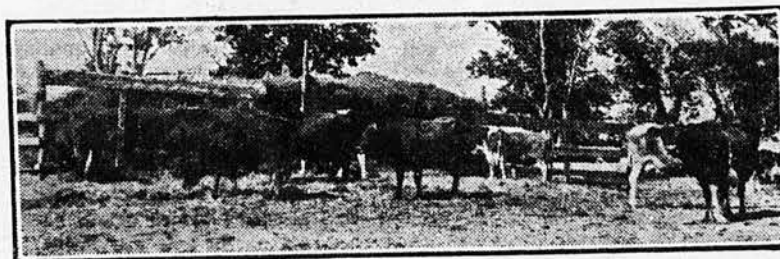
ing herd of pure bred cows. Plans have already been made to give these foundation animals advanced registry tests and provision has also been made to breed them to the best Holstein bulls in the Mulvane and Derby dairy communities. Mr. Macy, the county agent, will take care of the breeding by hauling the cows in the trailer.

The scrub herd being replaced in this progressive movement on the Sedgwick county farm is shown in the other cut. In breeding these scrub cows are mixtures of Hereford, Shorthorn, Jersey and Holstein blood. The best milk cow of the lot is a half-blood Holstein. A grade Hereford bull from which the cows have produced two crops of calves, has also been consigned to the discard. No greater mistake could be made than to use such an animal to head a dairy herd.

This co-operation between the farm bureau, the county commissioners, and the breeders of pure bred cattle of the dairy community adjacent to the county farm is most commendable. If continued in the spirit in which it is begun, the county farm herd can easily become one of the leading dairy herds of the community and be a source of profit to the county.



FOUNDATION COWS PURCHASED FOR DEVELOPING PURE-BRED HERD ON SEDGWICK COUNTY FARM



PRESENT HERD OF SCRUB COWS.—THESE TO BE REPLACED WITH PURE-BREDS

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

A PROMINENT banker makes the statement that he is influenced in lending money to people by the appearance of their property. If their houses, barns, and other buildings are painted as often as necessary in order to give them a spick and span appearance, he feels that they are a better risk than those who do not paint their buildings and let them go to rack and ruin through neglect.

If for any reason it is desired to sell a property, the prospective purchaser can easily be induced to pay a higher price for a well painted house than for a shabby one. A good buyer looking over a shabby property is quick to assume that the owner is bankrupt or badly in need of money if his property has a run down appearance and makes his offer accordingly. If it is neatly painted, however, he assumes that the owner is prosperous and hesitates to make an under-value bid. In short, in case of a sale, a coat of paint will bring a price for a house enough higher than could be obtained for an unpainted building to more than cover the cost of painting.

Therefore, any way we look at it, paint is a good investment for a property owner.

Rye as Clover Crop

A. F. B., of Osage county writes as follows: "I have a piece of upland, quite thin in spots, on which I have been raising Kafir for silage and desire to continue to do so if it can be done without further injury to the soil. Now what I would like to find out is this: Will it increase or diminish the fertility of the soil to sow rye or wheat and pasture some sheep on it till about May 1, then plow and plant to Kafir again?"

Growing rye or wheat for fall and winter pasture and plowing the crop under in the spring, will not injure soil. It is a soil building practice. It prevents the washing of the soil and the leaching out of soluble plant foods during the fall and winter season.

Rye is better than wheat for poor soils. It is more hardy and will produce fairly good pasture on land upon which wheat would make very weak growth. To be valuable as a pasture and as a cover crop, rye must be sown early enough to make a large fall growth. It has been so extremely dry during the present summer that it probably has not been possible to plow land for fall seeding, but since our correspondent wishes to sow rye in a field now in Kafir, plowing will perhaps be unnecessary. Kafir is harvested so late for silage as a rule that the seeding cannot be done as early as it should be unless a one-horse drill is used putting the rye in between the rows of Kafir before the crop is taken off. This would be the best plan to follow if it can be done, drilling in the rye just as early as the soil is in condition for working.

While rye does not have the ability to utilize the nitrogen of the air as do the legumes, it does have the ability to take up and store in its tissues a great deal of nitrogen from the soil. The amount taken up per acre by rye is sometimes larger than the combined amount taken up from the soil and from the air by some of the legumes. Nitrates that might be lost from the soil in winter are thus largely preserved by growing a cover crop of rye.

Pasturing with sheep seldom injures the soil by tramping as is often the result of pasturing horses or cattle on rye or wheat when the ground is soft. The droppings from the sheep will enrich the soil and in the spring the rye may be allowed to grow up and be turned under as a green manure crop. This adds much needed organic matter to the soil and increases its capacity to hold moisture.

When used as a green manure crop, rye should be turned under before it is fully matured. From the time it is

knee-high until it begins to head is a favorable time. If allowed to grow too long it may reduce to practical exhaustion the moisture and available plant foods in the soil. It also decays slowly in the ground when nearly mature, and therefore may injure the following crop. If the soil is too dry for plowing at the proper time, the crop may be double disked twice, which will stop growth and prevent further drying out of the soil and may cause it to become mellow enough to plow in a few days, even without rain. Thorough disking and packing of the soil should always follow plowing under a growth of rye as this will hasten decay.

Following a crop of rye turned under as a green manure crop with corn or Kafir should not be attempted in sections of light rainfall. It requires plenty of spring rain to get the soil in condition for the crop and to insure the prompt decay of the green material turned under.

International Farm Congress

The fourteenth annual session of the International Farm Congress will be held at Kansas City, Missouri, September 25, 26, and 27, 1919.

Every member of the congress in good standing is by virtue of such membership a fully accredited delegate. In addition, delegates may be appointed as follows: Chief executives of nations and governors of states and provinces, twenty-five delegates each; secretaries

Lectures and demonstrations marking the progress of scientific research are given. The Farm Congress is the clearing house for information gleaned by the various agricultural colleges and experiment stations, and by successful farmers everywhere. The proceedings are printed in book form, constituting a most valuable addition to the agricultural literature of the day.

This meeting of the Farm Congress comes during the International Soil Products Exposition, September 24 to October 4. This great exposition will be staged in the Kansas City Convention Hall and especially constructed buildings adjacent.

Barley and Sweet Clover

In a hog feeding test conducted in Sumner County by E. L. Miller, a farm bureau member, sweet clover and barley proved very profitable as a hog feed. This test was planned and conducted under the direction of W. A. Boys, the county agent, and the farm bureau. Considerable interest has been taken in the test because of the important part played by the sweet clover and the barley, says Mr. Boys. The test began March 21 and lasted 130 days. The average initial weight of the pigs was forty-seven pounds. During the first thirty days of the feeding period a very limited grain ration was fed, the shoats being forced to depend largely on the sweet clover pasture. Corn and tankage were fed up to May 13, but from that

particularly valuable on the uplands where alfalfa is not a very satisfactory crop. It also demonstrated that barley can be profitably fed to hogs. The barley fed cost from twenty-five to thirty cents less a bushel than corn.

Troubles of a County Agent

A county agent in one of the Eastern States believes in diversified activities. He reports as follows for one month's work: "Burnt up 90 gallons of gasoline, 5 quarts of oil, had 6 punctures and one blow-out. Trailer broke away and upset load; pig fell out of the car and was caught with difficulty, afterwards jumped from sty and was run over by an auto. Buried three pigs with all the profits and lost \$28 besides. Tore best trousers getting over pasture fence; broke watch crystal loading corn planter; but outside of a few minor troubles had a very satisfactory month's work."

Keep Government Insurance

Your government insurance is a good thing—hang on to it.

Just as the government is planning to make a "good thing" a better thing, ex-service men are dropping it.

Hang on to it—if you have dropped it, reinstate it.

Unfortunately, many, through misunderstanding, misinformation, or other causes are permitting their insurance to lapse. Upon leaving the service a large proportion become transient, with the result that the War Risk Bureau has no way of reaching them by direct mail. Others move and fail to send their forwarding addresses to Washington. Still others fail to furnish enough detailed information to identify their cases in millions of records in which there is an almost unbelievable number of instances where scores and even hundreds have the same name. These duplications are often further complicated by the fact that many of the dependents of these same men, in turn, have names which are spelled exactly alike.

The following five points of information should be sent to Bureau of War Risk Insurance with each inquiry about a specific case involving insurance: (Form providing for additional information should be used if available.)

1. Full name (including first, middle, and last name) and complete address.
2. Rank at the time of applying for insurance.
3. Army or Navy organization at time of applying for insurance.
4. Army serial number, if in the Army.
5. The number of insurance certificates, if known.

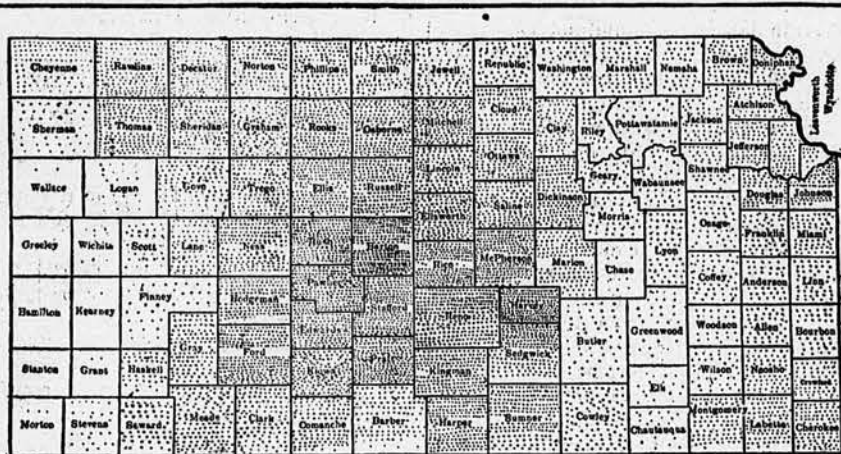
If this is done, the handling of the matter will be greatly expedited.

Secretary of the Treasury Carter Glass, on July 25, signed a decision of momentous importance and interest to discharged soldiers, sailors, and marines.

The Secretary ruled that discharged soldiers, sailors and marines who have dropped or cancelled their insurance may reinstate it within eighteen months after discharge without paying the back premiums. All they will be asked to pay will be the premium on the amount of insurance to be reinstated for the month of grace in which they were covered and for the current month.

Thus, for example, if a man dropped \$10,000 of insurance in January, 1919, and applies for reinstatement September 1 for \$5,000, all he will have to pay will be the premium for January (the month of grace) on \$5,000 and the premium for September on \$5,000. Or, if he applies for reinstatement of the full \$10,000, he will pay a total of two months' premiums on \$10,000, one for January and one for September. He will not have to pay premiums in either case for the intervening months.

The decision stipulates that the former service man applying for rein-



THIS map shows where the wheat in Kansas was grown this year. Each dot represents 1,000 acres. It also gives some idea of the enormous amount of straw there is in the state, for each dot will represent 1,000 or more tons of straw. This by-product of wheat growing has too often been wasted. The soil needs every pound of organic matter that can be worked back into it.

or ministers of agriculture, national agricultural societies and state boards of agriculture, ten delegates each; agricultural colleges, experiment stations, state or county agricultural societies, commercial organizations and boards of county commissioners, five delegates each.

Accredited delegates may participate in all the deliberations and acts of the congress, but only members in good standing may vote on the election of permanent officers or on matters affecting the permanent organization.

The annual sessions of the International Farm Congress affords altogether the most representative and effective medium for the expression of current agricultural thought. The congress is a voluntary membership organization, not conducted for profit. Its entire resources and activities are devoted to the cause of a better agriculture.

The program will include addresses on and discussions of the great problems with which farmers, stockmen and all producers have to deal. The voice of the Farm Congress, as expressed at these annual sessions, is most clearly the voice of those engaged in the basic productive industries.

date to July 9 ground barley was substituted for the corn and from July 9 until the end of the test only a small portion of corn was fed, the principal part of the grain being barley. The total feed consumed was as follows: tankage, 3,900 pounds; corn, 29,608 pounds; and barley, 63,896 pounds. The total gain made by the bunch of hogs was 22,377 pounds or at the rate of one pound of gain for each 4.35 pounds of grain and tankage fed. The cost of the gains for feed alone was twelve cents a pound. Both the barley and the corn fed were of third and fourth grade, the corn particularly being of poor quality. The hogs topped the Wichita market at twenty-three cents a pound, showing that they were of prime quality.

These hogs were pastured freely on the sweet clover until about June 15. The clover was getting matured and tough by this time, this being the second year for the crop. In addition to pasturing 151 head of hogs, the twenty-two acres of sweet clover carried eight head of cattle and Mr. Miller thinks it would have carried two carloads more of cattle up to July 1. The stand was not injured by pasturing. This test has shown that sweet clover is a successful hog pasture in this section and is par-

statement be in as good health as at date of discharge.

Former Treasury Decision 45, W. R., and other prior regulations in conflict with the new decision are revoked. Director R. G. Cholmeley-Jones, of the Bureau of War Risk Insurance, following the signing of the decision made the following statement:

"The present decision is one of the most important to former service men that has been made in the history of the bureau.

"Many service men have been deterred from availing themselves of the former and less liberal reinstatement privileges by reason of the relatively large amount of money represented by accumulated overdue premiums, and because it would seem that they were paying for something that they never actually had, which, in fact, was the case.

"Under the new decision a man is relieved of the burden of overdue premiums. He has an opportunity to rehabilitate himself financially after getting out of the Army, Navy, or Marine Corps, and to reinstate his insurance at any time within 18 months following discharge without the burden of paying a large amount of money.

"The reason payment for the month of grace is required under the new decision is that the insured was protected by reason of his insurance continuing in force during that month, and that had he died during the period of grace his policy would have been paid.

"Of course, every man who has dropped his insurance should reinstate it immediately, for the reason that if he should die before reinstatement his dependents will not receive any payment.

"Therefore, I urge that care be taken to make clear to every former service man who has dropped his insurance that the new ruling does not automatically reinstate him, and to impress upon him that he will be without insurance until he voluntarily applies for and secures reinstatement. He should immediately apply for reinstatement for his own protection and that of his dependents.

"Don't forget that men die or become disabled in peace time as well as in war time, and that if a man waits he may not be in as good health as he was at the time of his discharge and consequently may not be able to secure reinstatement.

"Don't put off reinstatement. Do it now."

If the policyholder is unable to keep the full amount of War Risk Insurance he carried while in the service, he may reinstate part of it from \$1,000 up to \$10,000, in multiples of \$500. Reductions may be made in multiples of \$500 to any amount, but not less than \$1,000. Premiums are due on the first of the month, although payments may be made any time during the calendar month.

Premiums should be paid by check, draft, or money order payable to the Treasurer of the United States, and sent to the Premium Receipt Section, Bureau of War Risk Insurance, Washington, D. C.

Wheat Prices to Farmers

Farmers have maintained that they were not getting what their wheat was worth because of the discount made by the Grain Corporation in establishing the prices on low grade grain. D. F. Piazzek, Kansas City zone agent of the Grain Corporation has conducted an inquiry in Kansas and Oklahoma to find out just what has been paid by licensed buyers operating under government supervision. He sent out 1,000 telegrams asking licensees for a record of prices paid for wagon loads of wheat on a scale down from \$2 a bushel since harvest. The following is a summary given out by Mr. Piazzek showing the information obtained from 981 replies: Only seven wagon loads have been bought on this crop at less than \$1.13 per bushel. Investigation develops that the wheat was very low test, wet and damaged.

A total of 597 wagon loads were bought at over \$1.13, but not over \$1.50. A total of 10,070 wagon loads were

bought at over \$1.50, but not over \$1.75.

A total of 430,485 wagon loads were bought at over \$1.75, but not over \$2.

"Since the primary receipts from Kansas alone were 30,750,000 bushels," says Mr. Piazzek, "it would not seem that any considerable portion of this wheat had been bought on a low basis. My survey did not ask for the total of wheat bought at over \$2, and the amount can only be arrived at by a process of deduction, but it will be very much larger than any of the figures herein mentioned.

"In addition to this, I made a survey of the total cars of wheat inspected in Kansas City during the period of July 1 to August 13, inclusive. The total number of cars was 16,005, of which but 3,181 graded below No. 3, the grade in detail being 2,436 cars grading No. 4, 547 cars of No. 5 and 198 cars of sample. Of these cars only 878 sold below the No. 3 price of \$2.11. Nine cars brought \$2, two cars \$1.98, two cars \$1.97, one car \$1.95 and one car \$1.92.

These figures are as nearly accurate as they can be made. They are taken from the official records of the board of trade and the Kansas and Missouri inspection departments. I am sure their publication will do much to correct the mistaken impression which has gotten out that the best part of our crop was low grade."

A public statement was also given out under date of August 18, that Julius H. Barnes, United States wheat director, had sent a letter to Senator Gronna, chairman of the senate agricultural committee, in reply to a statement issued on August 12, by Senator Gronna, criticizing Mr. Barnes and the United States grain corporation for their administration of the wheat guarantee act.

The letter of Mr. Barnes answers the charge of Senator Gronna that "owing to manipulation in administering the grades and standards, together with the damage done by hot weather to the maturing crops, the winter wheat producers are receiving as low as \$1.15 per bushel for their wheat, not the \$2.05 which Mr. Barnes gives as a theoretical average, and that this year's crops may average not over \$1.50 per bushel."

Mr. Barnes says that out of 80,000,000 bushels of wheat marketed in the Southwest since July 1, the grain corporation records fail to show even 1,000 bushels priced at \$1.15, and that out of 16,000 carloads of wheat received in Kansas City, only six cars sold below \$2 and the lowest was \$1.92. He also says that less than six per cent has sold below the standard price of \$2.11 for No. 2.

"As to the \$2.05 which I am accused of calling a theoretical average," continues Mr. Barnes, "the department of agriculture gives monthly the actual average farm price received by the grower, including actual prices for damaged and inferior qualities. These official reports allow the following calculations:

"Crop of 1917—423,000,000 bushels, marketed at average grower price of \$2.02.

Crop of 1918—729,000,000 bushels, marketed at average grower price of \$2.06.

"The weighted average for the two crops is \$2.0459, and was the basis for my statement.

"As to the producer not receiving the full measure of the guarantee, it is interesting to note that the average farm price, July 1, was \$2.20, and on August 1, \$2.17, between which dates there was marketed 150,000,000 bushels, evidently at 12 to 15 cents above the average price obtained during two years of the fair price control.

"In view of this, the anxiety 'that this year's crop may not average over \$1.50' seems premature."

Referring to the operation of the wheat guarantee. Mr. Barnes adds:

"The producer apparently is satisfied with his treatment, for with 2,000,000 wagonloads of wheat marketed, we have received, in our offices, less than 100 appeals against grade or price offered.

"If your suggestion is that the grain corporation prices on damaged wheat are relatively too low, fair discussion

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on that phase is welcomed. Those discounts are the judgment of twenty men of life long grain experiences, actuated by the same high ideal of national service as yourself."

Higher Prices for Tested Cows

Experienced breeders of dairy cattle strongly advise giving cows an official record. It simply gives the cows a chance to prove officially just what they are capable of doing. A superintendent of official cow testing in a leading dairy state says:

"The expense of establishing these official records is a mere item compared to the commercial value to be gained. Highly productive animals are never lost

sight of, as their records are officially reported and appear in generations to come, which determines to a great extent the value of the offspring. Cows are often sold at very moderate prices, whereas, if given an official record, their owners would realize much greater profits."

The dairy industry in the United States, it is estimated, represents about two billion dollars a year in output, many millions in investment, and an army of about six million workers. When the extent of man's dependence is fully realized, there will come a grateful acknowledgment that the dairy cow dispenses the one perfect food without which the world could not be nourished.

Colorado Cheap Farming Land

It is a privilege to live in this part of Colorado. We have 300 days of sunshine each and every year. Cool summers and pleasant winters. Every tubercular person who comes here in time and lives in the country gets entirely well. This part of Colorado where I live is called the Divide Country. It is 40 miles east of Colorado Springs. This is a nice gently rolling prairie, almost level, very deep soil, slightly sandy loam, with a fine clay subsoil. Shallow wells furnish plenty of nice, soft water. There are school houses, high schools, churches and rural delivery everywhere. This part is in the middle of the rain belt, where we raise large crops of every kind each and every year. We raise corn, wheat, rye, oats, millet, sorghum, alfalfa, Sudan grass, beans, potatoes and all kinds of garden vegetables. Corn makes 35 to 60 bushels per acre, spring wheat 20 to 30 bushels, fall wheat 20 to 40 bushels, oats 50 to 70 bushels, all other crops in proportion. Apples, grapes, plums, cherries, gooseberries, currants and strawberries do extra well. My first cutting of alfalfa and rye hay is now in the stack, have about 100 tons. You surely will have to look a long time to find a better country at any price. Some of the very best land with fair improvements can still be bought at \$18 to \$20 per acre. My honest opinion is that this land will sell for \$40 to \$50 per acre within two years.

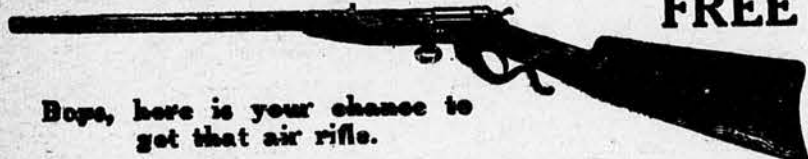
I want to tell every person who reads this article that I am not a real estate agent—I am a farmer and stock raiser and am now living on my ranch and have been for more than twelve years. I have made big money every year farming and raising stock. There has not been a crop failure in the twelve years that I have lived here. Five of my near neighbors each raised more than 3,000 bushels of corn last year. One of my neighbors has made over \$5,000 off his corn alone each year for the last three years in succession. This farmer thinks his corn this year will bring him \$7,000. Any land offered for sale by me is fully as good as the land on which these big crops of corn is being raised. We never have hot winds or cyclones and there are no chinch bugs or Hessian fly, no hog or chicken cholera, no rats, crows or buzzards, plenty of natural rainfall each year to mature all crops. As to my honesty and financial standing I refer you to the First National Bank of Colorado Springs, Colo. If you are interested in this part of Colorado, write for literature which will be mailed you at once free of charge.

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Stops Unscrupulous Dealing

How the Government's tuberculosis testing work is protecting cattle breeders and dairymen from being victimized by careless or unscrupulous dealers is shown in a letter to the United States Department of Agriculture from Dr. L. E. Morgan, of Baton Rouge, La., who states his belief that "this is one of the most important and valuable lines of work that the government has established in Louisiana. It has been of special benefit to me in that I consider it has almost saved my entire herd from going to the butcher."

Mr. Morgan relates that last October he bought five pure-bred Holstein cows from an Iowa dealer, under the condition that the cattle were to be returned for tuberculosis sixty days from the date of sale, meanwhile being isolated. The test by a Federal inspector showed two of the cows giving pronounced reactions to the tuberculin test, and a third evidencing suspicious symptoms. According to the terms of the sale the reacting cattle were shipped back immediately to the dealer, with freight charges both ways added to the "C. O. D." charges.

"If I had not had the Government look after the health of my cattle," writes Dr. Morgan, "the certificates that were sent with these cattle when they came into this state might have been accepted * * * and you know what the results might have been, in that my entire herd of dairy cattle would have

been subjected to these infected cattle."

Dr. Morgan also states that the same dealer who had sold him the diseased cattle shipped two other Holstein cows to a dairy farm near Baton Rouge where tuberculosis had never been found, and that these two cows showed symptoms of the disease and were slaughtered. He continues:

"It is unnecessary for me to state to you the amount of damage that such unscrupulous breeders and dealers in dairy cattle can do to the dairy industry of the country, and I hope to see the day come when the Government will stop the movement of all cattle that are infected with tuberculosis. At this time the percentage of dairy cattle in Louisiana infected with tuberculosis is very small, and if the proper steps are taken to prohibit the importation of infected cattle into the state and with the good work that the department is doing to eradicate the animals that we have already infected with this disease, we will be able to keep this percentage at a minimum."

A certain firm in Colorado is offering to build pit silos. A 51-ton silo will cost about \$170. That looks high when some farmers will tell how cheaply they built their pit silos, but they did not take the cost of their labor into account. Such talk is mainly responsible for the small number of pit silos that are being built.

Herd Building is Dairyman's Problem

DAIRY farming consists of more than producing milk; it includes the raising of heifers to replace animals in the herd that must be discarded because of failure to breed, old age, sickness or death, says W. W. Swett of the Missouri college of agriculture. The dairy farmer who pays the greatest attention to the raising of calves is usually the most successful.

According to recent reports, there are more than twenty-three million dairy cows in the United States. The average productive life of the dairy cow is not more than six years, which means that the farmer with twelve cows must have two heifers coming into milk every year to maintain the number of animals in his herd. It means also that the whole number of cows in the United States must be replaced every six years, and that approximately four million must come into maturity each year in order to maintain the number of cows in the United States. This number does not provide for increasing the total to meet the demands of the ever growing population of the country. Not only is this population increasing, but a knowledge of the value of dairy products has brought about a greater consumption, the demands for which must be met in some way. The cow does not usually become productive until she is at least two years old. The number of unproductive dairy heifers to be maintained in an immature condition is approximately eight millions. It costs about \$70 for feed to raise a dairy heifer to the age of two years. This means that the farmer with twelve cows must of necessity raise two heifers each year, or, that he must at all times have on hand four unproductive heifers. At \$70 a head for cost of feed alone, this represents an investment of \$280, simply to insure maintenance of the number of animals in the herd. The dairy industry in the United States has approximately \$560,000,000 invested in these unproductive animals. Regardless of the cost, the dairy business must be maintained and these heifers must be raised.

There are two methods of replacing animals discarded from the herd; one is to buy heifers or mature cows on the open market, and the other is to raise the heifer calves which are dropped in the herd. The former method requires perhaps less effort and less time and attention on the part of the dairyman, but it has serious drawbacks.

The first method is expensive; particularly, because the good cows, which are the desirable ones, are not for sale except at very high prices, while the undesirable ones, or "culls," are on the market at a much lower figure. It is readily understood that the man who goes to the trouble of raising his heifers to sell, does so only when he can realize a profit. The buyer pays, therefore, the actual expense of raising the heifer, plus some profit. Even after going to all the expense and trouble of searching out the heifers, transporting them to his farm and paying a good price for the privilege, the buyer is almost sure to find that some of them are unprofitable and must be disposed of. In addition, when cows are purchased, there is always serious danger of introducing diseases such as tuberculosis or contagious abortion. A fact even more important is that the dairy farmer should be interested in his work with the idea of making improvement and progress, and he should consider dairy farming as a breeding proposition with great possibilities for improving his herd. Also, he should realize that whenever the practice of buying rather than raising heifers is followed, the production of the herd is low and there never is much tendency for it to increase.

Dairy Association Offers Cup

A handsome silver loving cup will be awarded by the Kansas State Dairy Association to the cow having the highest official year's production record, this cup to be competed for annually. To be

held permanently, it must be won three years in succession by a cow owned by the same person or firm. The offering of this cup was authorized at the last annual meeting of the association, the purpose being to encourage official testing work in the state. The rules governing the award, as prepared by the committee appointed, are as follows:

This cup shall be known as the Kansas State Dairy Association Loving Cup.

This cup shall be awarded each year to the owner of the cow making the highest semi-official fat record in the state of Kansas.

The term "year" in these rules shall be interpreted as a calendar year.

A cow to be eligible for the current year must have completed her record within the calendar year previous to the time the cup is awarded. The record period shall consist of the 365 days period following the date the cow is first started on test.

No cow owned by a state institution shall be eligible to compete for this cup.

No cow not owned in the state of Kansas for the entire testing period shall be eligible to compete for this cup.

All cows competing for this cup shall be subject to the advanced registry rules of their breeding association and the rules of the department of dairy husbandry of the Kansas State Agricultural College.

This cup shall be the property of, and in the care of the individual or company to whom it was last awarded, from the time it is awarded until one month from the time set for the next awarding, at which time it shall be sent, as directed, to the secretary of the Kansas State Dairy Association, unless it is won three consecutive years by a cow owned by the same person or company, in which case it becomes the permanent property of said person or company.

This cup shall be presented to the owner of the highest record cow for the concluding year at the meeting of the Kansas State Dairy Association during Farm and Home Week of the Kansas State Agricultural College at Manhattan, or at such other time and place chosen by the officers of the Kansas State Dairy Association.

The cup shall be suitably engraved with the name and registration number of the winning cow, the name of the owner, his address and the calendar year. The expense of such engraving shall be paid by the Kansas State Dairy Association.

Importations Resumed

Recently 378 sheep, 111 cows and heifers, six horses, and one Berkshire boar pig arrived in New York from England on the steamship Michigan, according to the United States Department of Agriculture. Included in the shipment were seventy yearling lambs of Hampshire, Cotswold, and Suffolk breeding, while the cows were mostly Guernseys and Jerseys, all of the animals being pure-breds purchased for use as foundation stock and in improving the herds of United States breeders. This shipment of live stock is one of the first which has reached this country from the British Isles since the outbreak of the war and marks the resumption of live stock trade between the two countries which was abruptly curtailed by the activities of the U boats.

For several years hay has not only been scarce but very high priced. It is exceedingly difficult to buy high-priced hay and feed with a profit for either milk or beef production. A more liberal use of silage will do away with this high cost of hay and the succulent ration will give better returns. Along with the silo should be used leguminous hays or fodders. It has often been said, and truthfully, if you have silage then you also need alfalfa or clover and the soil needs it too. It has proven a wise and economic policy to combine these two great feeds in order to raise stock cheaply and well.

Make Silo Walls Air-Tight

WITH the silo-filling season approaching, a careful examination of silos, followed by necessary repairs, will help to improve the keeping quality of the contents. According to studies of the United States Department of Agriculture, air-tight walls are the chief requirements; in fact, a leak no larger than a small nail hole may spoil several hundred pounds of silage. In the case of wood-stave silos the hoops and braces should receive attention to insure close fitting.

Silos made of concrete, brick, or other material of porous or semi-porous nature, are benefitted by an inside coating of a preparation which seals the pores and also prevents the action of silage juices on the walls.

The coating most commonly used hitherto is coal tar thinned with gasoline and applied with a paint brush. A number of materials of like nature have been considered for this work, but the one showing the most promise is paraffin.

How to Apply Paraffin

Paraffin may be applied either cold or hot to silo walls. With the cold method the paraffin is dissolved in a volatile carrier like naphtha until a saturated solution is obtained. Four pounds of paraffin dissolved in one-half gallon of gasoline or naphtha will make one gallon of this solution. The solution is then applied much like paint to the surface of the concrete, which it penetrates according to dryness and porosity. One gallon has a covering capacity of about 200 square feet.

The naphtha soon evaporates, leaving the paraffin in the holes. When applying the paraffin by this method, special care must be taken that there is good ventilation in the silo and that there are no lights or fires nearby. Naphtha is very inflammable, and a serious explosion or fire may result from careless use.

Walls Must be Warm

Paraffin may also be applied in melted form. It requires six and one-half pounds of paraffin to make one gallon of the hot paraffin solution. The work should be done on a warm day and the concrete must also be sufficiently warmed by artificial heat so that the paraffin may be thoroughly rubbed in. One gallon will cover about 250 square feet of surface. When this method is followed, a blow-torch should be used to warm the walls as the paraffin is being applied, and also to thin and spread the layer of paraffin. Two buckets of paraffin should be used, one to be heated while the other is being applied. The hot-paraffin treatment is one of the most successful for waterproofing surfaces exposed to weather, but it requires some experience to obtain successful results.

The amount of paraffin required to coat a silo may be determined in the following manner:

Multiply the height of the silo by its circumference (the circumference is the diameter multiplied by 3.1416,) which gives the number of square feet of surface on the inside of the silo. If the cold method is to be used, divide the result just obtained by 200, which gives the number of gallons of the paraffin-naphtha required. Multiply this result by the amount of paraffin and naphtha in each gallon to obtain the total materials required.

Use of Hot Method

Where the hot method is used, divide the number of square feet of silo wall to be coated by 250 to find the required number of gallons. Multiply this result by six and one-half to obtain the number of pounds of paraffin required. For example, to find the paraffin required to coat a silo 14 ft. in diameter and 30 ft. high:

Diameter (14 ft.) times 3.1416 equals 43.98 feet, the circumference of the silo. Height (30 ft.) times circumference (43.98 ft.) equals 1919.4 sq. ft., the wall area.

Area (1919.4 sq. ft.) divided by 250

sq. ft. equals 7.67, or number of gallons required.

Gallons required (5.27) times 64 equals 337.28, the number of pounds of paraffin required.

In both cases the cost may be estimated from the local price of paraffin and naphtha. It should be remembered, however, that these figures will vary with local conditions.

Selecting Gilts for Breeding

Gilts to be used for breeding should be selected early, owing to the degree of finish which swine attain at an early age, says G. A. Brown of the Michigan experiment station. There is no class of animals in which the selection of breeding stock is more important. The increasing tendency to have pigs ready for market at six months of age is to be commended, but the selection of gilts from a drove of pigs ready for market at this age is a hazardous practice and should not be followed by the breeder who is looking to the future utility and improvement of his herd. The pig finished at six months is usually very attractive in appearance and heavy for its age. This heavy weight and finished condition is obtained by heavy feeding on fattening foods and can only be secured by sacrificing to a certain extent the development of frame work, digestive capacity, lung capacity, and in many cases also the reproductive organs.

The gilt intended for breeding purposes should be selected at from four to five months of age or before the final fattening period commences, and in contrast with the fattening pigs should be given more exercise, a more bulky ration and also a ration containing more protein or growth producing nutrients.

In this selection, only the gilts from large sized, prolific, heavy milking dams of strong constitutional vigor should be considered. The gilt should have good length and depth of body, being especially long from shoulder to ham and deep just back of the shoulder. A large capacious middle gives more room for the digestive and reproduction organs thus indicating larger litters and better nursing qualities. The bone should be large and smooth with the limbs straight at the knees, hocks and pasterns. The fore legs should be placed wide apart, which, together with a good depth of shoulder and large heart girth, will insure good constitutional vigor. There should be at least twelve well developed teats set far apart, with the front ones well forward on the underline. The head should have a decidedly feminine appearance, with good width at the nostrils and between the eyes. Viewed as a whole, the good gilt will possess a well proportioned body with a long, strongly arched back and freedom from coarseness in any part.

After making a selection, the gilt should be fed for maximum development of bone and muscle, as the offspring from well developed parents can be made ready for market at an earlier age than can the progeny of poorly developed undersized parents.

A man who had come to Kansas in the pioneer days and gone through all the struggles of that time was showing a friend through his beautiful home and grounds. "It is just the kind of a home I have dreamed of all my life," he said in answer to the praise of the other. "The location is a fine one too, and we are surrounded by people who have been our friends for years. But I cannot understand," he added wistfully, "why my boys are not contented here. I had at last gotten things just as I wanted them and thought we could all settle down here and be happy. But the boys have started out for themselves in a new and harder life." The friend, who was a young man himself, with all the fire and enthusiasm and fighting spirit of youth, smiled understandingly. "Yes," he replied, "every man has a right to conquer his own wilderness."

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THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Tasty Fruit Combination

WHEN two or three fruits are combined for "putting up" the result is a product with an entirely different flavor which adds variety to the menu. Certain fruit flavors blend together better than do others. The following combinations are recommended by United States Department of Agriculture specialists:

Apples and quinces; white currants and gooseberries; apples and black currants; rhubarb and quinces; green gage plums and lemons; grapefruit and oranges; tangerines and oranges; grapefruit, red currants and raspberries; raspberries and cherries; plums and apricots; oranges and rhubarb with strawberry juice.

When small fruits are used in the preparation, they are left whole. Larger variety fruits are cut into small pieces. Raisins or nuts or sometimes both may be added to fruit combinations. They add a desirable flavor and increase the food value of the product. In preparation, enamel or agateware vessels should be used.

To serve as a fruit cocktail, salad or dessert, the following fruit combinations are excellent: Green gage plums, pears and gooseberries; peaches, pears and cherries. The jar is packed with the preferred combination, a syrup of desired proportion is added and the jar and its contents boiled for thirty minutes in hot-water bath canner.

The following combinations are preserves which are used as condiments or as a spread for sandwiches. They have been tested and found desirable.

Plum Conserve

- 4 pounds of plums
- 3 pounds of sugar
- 1 pound shelled nuts
- 2 oranges
- 1 pound raisins.

Remove the seeds and chop the plums. Peel the oranges and slice thinly one-half of the peel. Mix the chopped plums, orange pulp, sliced orange peel, sugar and raisins, and cook all together rapidly until thick as jam. Add the nuts five minutes before removing from the fire. Pack hot into sterilized jars, seal, and boil (process) in hot-water bath for ten to fifteen minutes for half-pint jars and thirty minutes for pints.

Grape Conserve

- 3 pounds grapes
- 1 pound sugar
- 1/2 pound finely ground raisins
- 2 large oranges
- 1/2 pound finely ground nuts

Take sound, ripe grapes, weigh and pulp them. Separate the pulp from the skins and heat the pulp and juice until the pulp breaks down enough to liberate the seeds. Remove seeds by passing through a colander. Grind the skins, add one-half pint water for each six pounds of fresh fruit, and cook until quite tender. Mix skins and pulp together and add for every three pounds of fresh fruit one scant pound of sugar, one-half pound of finely ground raisins, the pulp of two oranges, and one-fifth of the ground peel of one orange. Cook the mixture approximately one hour in an oven or over a slow fire, until thick as jam. Then stir into the mixture one-half pound of ground pecan-nut meats. After allowing it to boil again for about five minutes remove from the fire, pack hot into freshly sterilized half-pint jars and seal at once. Pint jars may be used if desired. Boil (process) the half-pint jars for fifteen minutes in hot-water bath and the pint-size jars for thirty minutes.

Fig Conserve

- 2 pounds fresh figs or 1 quart of plain canned figs
- 1 orange
- 1 1/2 pounds sugar
- 1/2 cup pecans (shelled)
- 1/2 pound raisins

Cut all, except nuts, into small pieces and cook until thick and transparent (about one hour). Add nuts five minutes before removing from stove. Pack and seal hot. Process as for plum conserve.

Medley Fruit Conserve

- 2 pounds peaches
- 1 1/2 pounds quinces
- 1 1/2 pounds pears
- 1 pound apples
- 3 lemons
- Sugar.

Wash, peel, and core or stone the fruit. Pass through a food chopper and weigh. For each pound of fruit allow three-quarters pound of sugar. Put fruit and sugar in alternate layers in a bowl and let stand over night. Place the fruit, the pulp of the lemon, and one-half the rind of the lemons, sliced thin, into the preserving kettle, and boil until the mixture is thick as jam. One cup of scalded, chopped nuts may be added, if desired, five minutes before removing from the fire. Pack hot into hot sterilized jars and seal at once. Boil (process) half-pint jars in hot-water bath for fifteen minutes and pint jars for thirty minutes.

Baked Peaches

Baked peaches may be canned or served as soon as they are removed from the oven and cooled. Dip the peaches in boiling water and then in cold water, and slip off the skins. Cut them in halves, and remove the stones. Place them in a baking dish or a granite pan. Fill each cavity with one teaspoon of sugar, one-fourth teaspoon of butter, a few drops of lemon juice, and a sprinkle of nutmeg. Bake the peaches in a moderate oven until they are tender, from thirty to forty-five minutes. If they are to be canned, pack them boiling hot into sterilized jars with a sterilized spoon, adjust the sterilized rubbers, and pour over the fruit any syrup that has formed in the pan. Fill each jar to overflowing with boiling syrup—one-half cup sugar to one cup water. Adjust the sterilized covers, and seal the jars.—New York College of Agriculture.

Telling the Story of Life

Some day your child will ask where he came from, or where the new baby came from. In properly answering this natural question the mother has a chance to impress forever upon the young mind a clean and wholesome knowledge of one of the most important facts of nature.

Let the mother strive for two things; to start the child with a beautiful and reverent feeling concerning the origin of life; to give this knowledge before the child can learn it in a harmful way outside the home.

It is well to anticipate the direct question by getting ready before the child is old enough to ask it. How to do this? Begin, perhaps, with seeds. Show the seed-pods of any plant. The seeds are the children of the plant. The plant gives them protection and feeds them with its juices. They are part of the plant. The plant is the mother of the seeds. When the seeds are ripe the pod opens and the seeds leave their mother to live their own separate lives.

Dwell upon the care the mother plant takes of her little seed-children, of the beautiful flower-petals she wraps about the tiny pod. Speak often and reverently of motherhood. Make the little boy as well as the little girl understand and love the mother.

In the springtime show birds' nests if possible. If not, show pictures and talk about the building and how both par-

ents engage in it. Then show or tell about the eggs. Explain how the eggs grew inside the mother-bird. They are a part of her just as the seeds are a part of the plant. When the eggs are ready the bird lays them in the pretty nest and sits on them to keep them warm. The father-bird sings to her and feeds her. Both birds love the baby-birds and as soon as they hatch out, father-bird and mother-bird feed them and care for them and teach them to fly. A hen sitting on her eggs can be used to teach the lesson. The egg grew in the hen. How wonderful it is that a little egg can change into a beautiful bird or a cunning little chicken! As the child grows older lead him to notice that the seed grows into a plant just like the parent, that the egg becomes a bird like the parents. Tell the child how important it is for children to come from good parents. Speak of parents and children, when talking of plants and birds; this will cause the child unconsciously to connect the ideas gained and birds with human life.

When a chance comes to show the child young kittens or puppies, or rabbits, or the young of any animal, tell him quite frankly, whether he asks or not, that of course the young ones came from the mother, that before they were born they were a part of her. Make it all seem natural to the child.

Dwell upon the love and care the mother everywhere bestows upon her children. Include father-love wherever it is expressed in the lower life.

When at last the great question comes, the child will probably answer it himself, "Mamma, did I come from you?" "Yes, darling, you were once a part of mother. How mother loves her little son (daughter)!"

Each mother will think of a way to

tell the story, according to circumstances. Only remember two things. Tell the story properly before anybody gets ahead of you and poisons the child's mind. And tell it in a way to make the child reverence and love parenthood.

The mother can make her child what she wants him to be by impressing right ideas and high ideals upon him when he is very young. — MARGARET WAERNER MORLEY, author of "Renewal of Life." This article is one of the series sent out by the U. S. Bureau of Education.

Chiggers

The chiggers, or harvest mites, seem to be unusually abundant this year. The men working in the harvest fields, berry pickers and picnickers, have all suffered more or less annoyance from the little red pests. It is said that sulphur sprinkled in the stockings and other garments worn next the skin will keep them away and is not annoying to the person.

If already covered with the "bites," do not scratch them and cause a sore, as the fingernails are apt to carry infection. Relief from chigger or mosquito bites may be obtained by bathing in warm salt water. The normal salt solution is made by dissolving in water a teaspoonful of salt for each pint of the water, letting it boil. This is an antiseptic wash which is also good for tired eyes, or applied as hot as can be borne will relieve soreness and inflammation in any part of the body.

"Hypo," the cheap and common chemical mixture used in fixing photographs, is recommended by Dr. H. B. Hungerford, professor of entomology at the University of Kansas, as one of the best preventives and eradicants of chiggers. He has found that a sponge bath of

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August 30, 1919

will keep chiggers off. The chigger is allowed to dry on the skin and not wiped off. Or if the chiggers already have landed, "hypo" helps alleviate the attack. "Hypo," or sodium thiosulfate, can be obtained at any drug store.

It is only the young and foolish chigger that ever gets on a human being, according to Dr. Hungerford. The grown-up chiggers have more sense. Nature intended the chigger to feed on certain insects, but the baby chigger, who has only six legs and has not attained the eight legs and good sense of a mature chigger, grabs onto almost any

host. If he gets on a grasshopper or any hard-bodied insect, only his head penetrates in his burrowing for food, and he eats, thrives and attains to eight legs and his majority. But when he gets onto a human being the digging is so soft that the silly, young chigger digs in so far he can't dig out. He commits suicide right there in his greedy burrowing for food. This information may be of some satisfaction to the possessor of a lot of chigger bumps. Each bump is the grave of a young chigger, who didn't follow his parents' example.

Old-Fashioned Flowers

We have a great deal of sympathy with the perhaps impractical poet who said, "If I had two loaves of bread, I would sell one and buy hyacinths to feed my soul." Fortunately, however, some of the most beautiful flowers are so easily grown that we may have them without sacrificing any of the material necessities of life. Among those requiring little care are pansies, violets, nasturtiums, pinks, phlox, petunias, hollyhocks, and most of the others which we call "old-fashioned" because they have been grown and loved for so many years.

One of the earliest of cultivated flowers, brought to us from Europe, is the pansy. Another old favorite is the hollyhock, which comes from China. Yet the mammoth pansy of today in its variety of colors would hardly be recognized by those who knew the original wild pansy with its small blossoms of purple or yellow, and our double hollyhock, rivaling the rose, is quite a different flower from that which brightened the drab lives of our great grandmothers.

The pansy, its cousin the violet, and the hollyhock, like the shrubs, once planted persist from year to year with little care, and so are particularly good for the busy woman. Hollyhocks make an excellent screen for ugly outbuildings or fences, or furnish a bright bit of color for the back yard. Plant them now for next summer's blossoms.

Pansies may be quite easily raised from seed by anyone who has the patience to wait for them. The seed should be planted in boxes or pans which may be carried into the house in winter. Make the soil very rich and fine. Scatter the tiny seeds over the top and gently press down into the soil with your hand. They may be planted quite thickly and the plants thinned later. Then either sprinkle a very little fine soil over them or simply cover with a wet cloth. In either case keep the surface of the ground wet. Give the young plants plenty of outdoor air and sunshine and keep them warm during the winter. Seed planted now should produce flowers next summer. If you do not want to go to the trouble of raising the plants from seed, plants ready to bloom can usually be bought for from 25 to 40 cents a dozen in the spring.

Don't let your pansies die in the hot, dry weather of midsummer. They will repay you for water and an occasional loosening of the soil around them by a wealth of bloom in the fall. They withstand a great deal of cold and if protected by a straw covering in frosty weather will bloom quite late. Don't let the plants die in winter. Cover them up warmly, and next spring they will be larger and better than any young plants you can buy.

Nuts in the Diet

Nuts are of very high nutritive value and are liked by most people. No other vegetable substance is so rich in fats. They also contain a large amount of protein, a small amount of carbohydrates, and about 1 per cent of mineral matter. The chestnut is probably of the greatest general value because of its high proportion of carbohydrates combined with protein and fat. The almond, although deficient in carbohydrates, is so rich in protein that it has been said, "No man need starve on a journey who can fill his waistcoat pocket with almonds."

Unfortunately, nuts are not readily

digested, but thorough chewing makes them less difficult of digestion, and artificial grinding and cooking helps still more. Since they contain much fat and protein, they may be used as meat substitutes to a considerable extent. They are also useful in nut flours and meals, in salads, soups and stuffing, in pastes and preserves, as well as in cakes, candy, confections, and bread, and nut oils may be used as a substitute for olive oil. As a filling for sandwiches, peanut butter is much used. A delicious honey and nut sandwich filling is made by stirring chopped nut meats into strained honey.

Nuts purchased shelled should always be washed before using. Pour boiling water over them, drain, and dry quickly. Nut meats which have been broken in shelling deteriorate very quickly.

To remove a rancid taste, wash the nuts thoroughly with cold water containing one teaspoonful or one tablespoonful of soda to a quart of water, the amount of soda used depending on the rancidity of the nuts. Dry quickly.

Blanching means the removal of the outer skin of nut meats. This is done by pouring boiling water over the nuts, letting them stand for a few minutes, then rubbing off the outer skin and drying the meats quickly.

Bulletins containing directions for canning, preserving, jelly making, drying and other conserving methods will be sent free on request to the U. S. Department of Agriculture, Washington, D. C., or to the Extension Division of the Kansas Agricultural College at Manhattan, Kansas.

A Good Way to Can Tomatoes

One of the best methods of canning tomatoes is: Select only sound and ripe tomatoes. Dip them in boiling water for about one and one-half minutes or until the skins loosen. Remove skins and, with a slender-pointed knife, cut out the core without cutting into the seed cells. Have in readiness jars which have been boiled fifteen minutes. Pack the whole tomatoes into the jars as rapidly as they are peeled. Add one level teaspoon of sugar and one-half teaspoon of salt to each quart. Put on the cleansed rubber which has been dipped in hot soda water and top which has been boiled fifteen minutes. Half tighten the top. If hot-water bath canner, either commercial or home-made, is used, place jar on false bottom with sufficient water to process the jars. Boil thirty minutes after the water starts boiling vigorously. Remove jars, tighten tops, invert to test for leaks and store in a cool, dark, dry place.

Another procedure which is more economical of space if to fill quart jars with peeled whole tomatoes and then pour in a thick tomato sauce. Each jar will have whole tomatoes for salads or bak-

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ing and a tomato puree for soups or sauces. This sauce is made by cooking the small or broken tomatoes until tender. The seeds are then removed and the pulp concentrated by boiling to about the consistency of catsup. Process quart jars for thirty minutes.—U. S. Department of Agriculture.

Peach and Apple Jelly

Wash the peaches thoroughly, remove the stones and cut them in pieces. Add a very little water, and cook the peaches until they are very soft. Strain the juice through a jelly bag. To the peach juice add one-fourth as much tart apple juice. Boil the mixture for five minutes, add two-thirds as much sugar, and continue the boiling until the jelly test is observed. Turn the jelly into scalded glasses, and when it is cool seal them with paraffin.—New York College of Agriculture.

Peach Marmalade

To the peach pulp left from making jelly, add two-thirds as much sugar by weight and cook the mixture until it is thick and clear. Turn it into sterilized jars and seal them. If a more acid flavor is desired, add one-half as much tart apple pulp.

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AIREDALES, COLLIES, AND OLD ENGLISH Shepherd dogs. Trained male dogs, brood matrons, pups all ages. Flemish Giant, New Zealand, and Rufus Red Belgian rabbits. Send 6c for large instructive list of what you want. W. R. Watson, Box 128, Oakland, Iowa.

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FOR SALE—FARMS AND RANCHES in Jewell, Mitchell and Osborne counties, \$40 to \$125 per acre. Send for list. J. H. King, Cawker City, Kansas.

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BIG CROPS IN NORTHWEST TEXAS ON the new line of the Santa Fe. The Federal Railroad Administration has authorized the completion of the new Shattuck branch of the Santa Fe Railroad to take care of this year's big crops—wheat, oats and sorghums. This will open for immediate settlement and development a large block of my land in a wheat and stock farming section of Ochiltree and Hansford counties in Northwest Texas near Oklahoma state line, where the first crop has in a number of cases paid for the land, and where cattle and hogs can be raised at low cost. Land is of a prairie character ready for the plow, no stone, stumps, no brush to be cleared, at attractive prices on easy terms. Climate healthful, rain falls during growing season. Write for free illustrated folder, giving experience and results settlers have secured in short time on small capital. T. C. Spearman, 927 Railway Exchange, Chicago, Ill.

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THE STRAY LIST.

TAKEN UP—BY J. N. THOMAS, SIX miles south and eight miles east of Pratt in Pratt county Kansas on July 23, 1919, one pair of mules, weight about 900 pounds each, color gray, diamond brand on right hip of each animal. Pair appraised at \$300. Grace McDowell, County Clerk.

TAKEN UP—BY T. J. McCABE of R. R. 4, Kansas City, Kansas in Wyandotte Township on the 25th day of June, 1919, one Hereford heifer, weight 600 pounds; color red and white. White face, white on hind legs, white switch, white ring around left ear, no horns. Appraised at \$60. William Beggs, County Clerk.

TAKEN UP—BY J. R. MOREY, OF ED-son, Sherman County, Kansas, on the 25th day of July, 1919, one mare, 14 hands high, color bay, white star in forehead, valued at \$60. Also one horse 15 hands high, color coal black, valued at \$60; and one horse 15 hands high, color black, white spot in forehead, valued at \$60. Doris E. Soden, County Clerk, Goodland, Kansas.

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FOR SALE—ROSE COMB WHITE LEG-horn roosters. Wm. Chisholm, Hildreth, Nebraska.

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TIRES—FORD, \$6.75; LARGER SIZES equally low. Lowest tube prices. Booklet free. Economy Tire Co., Kansas City, Mo.

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LET US TAN YOUR HIDE—COW, HORSE or calf skins for coat or robe. Catalog on request. Crosby Frislan Fur Co., Rochester, New York.

SEEDS

KANRED WHEAT, \$3.00 PER BUSHEL. Arthur A. Patterson, Elmhurst, Kansas.

KANRED SEED WHEAT—GUARAN-teed pure. \$3.00 a bushel. Sacks extra. F. J. Nesetrlil, Munden, Kansas.

KANRED SEED WHEAT, \$3.00 PER bushel, sacks extra. J. M. Taylor & Sons, Chapman, Kansas.

INSPECTED KANRED SEED WHEAT for sale. Write for a list of members of the Kansas Crop Improvement Association having Kanred seed for sale. B. S. Wilson, Secretary-Treasurer, Manhattan, Kansas.

When Hens Eat Eggs

Egg eating sometimes becomes a serious vice, fowls becoming very fond of eggs when they have learned to eat them and it often spreads from fowl to fowl. It usually begins through accident by eggs being broken or frozen. Be careful to see that this does not happen. See that the nests are properly supplied with straw or other nesting material and have them darkened, so that if an egg is accidentally broken the fowls will not be likely to discover it. Supply plenty of lime in the form of oyster shells, bone, or similar substances to insure a firm shell. As soon as it is discovered that a fowl has formed the habit, the fowl should be removed, in order to prevent the spread of the vice. Once formed, it is difficult to eradicate, and the safest remedy is the death penalty.

Fowls sometimes pluck feathers from themselves and from each other, which is often caused by too close confinement, by the presence of insect pests, or by improper feeding. When some of the fowls of a flock have formed the habit slightly, a wide range with a change of diet, including a plentiful supply of animal feed, usually corrects the evil. Above all, see that the fowls have plenty of inducement to exercise. If the habit becomes well formed it is very troublesome and may necessitate the killing of some of the fowls in order to stop it.

Pit silos cannot be built where water will seep in or where there are large boulders to interfere. The former is more serious than the latter. Pit silos can be built in most places where water does not give trouble.

Throughout the entire country there is a general awakening of interest in better livestock.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

GROWING pullets do better if they have some kind of animal food, such as skim milk, butter milk, meat scraps or a high grade of tankage, say University extension poultrymen. Under normal conditions pullets on the farm will obtain enough insects and worms, but dry weather often limits this supply. Plenty of milk or butter milk is usually available on the farm. If it is not it will be worth while to use meat scraps or good tankage, especially if an early supply of eggs is desired.

Sending Non-Layers to Market

That the results secured in the Missouri culling campaign last fall were highly satisfactory is shown by the reports submitted by hundreds of poultry keepers and the great demand for culling demonstrations.

From the flock of 166 Rhode Island Reds owned by W. H. Orr of Clinton County, seventy hens showing the ear marks of loafers were removed. During the four days previous to culling, Mr. Orr received an average of thirty-four eggs each day from the 166 hens. For the first six days after culling he received an average of thirty-two eggs each day from the ninety-six hens left.

The home demonstration agent in Greene County reported that from 858 farm flocks culled by this system in her county, 38,329 low producing hens were sold. She estimated that \$32,454 worth of feed which otherwise would have been wasted was saved by this campaign.

A Chicago poultry dealer who handles cars of live poultry from Missouri reported that several cars of live hens arrived in Chicago with no eggs in the coops. Ordinarily the free eggs in a car of hens furnishes a fine source of revenue to the dealers. Investigation by the Chicago firm showed that these hens were coming from counties where culling campaigns had been conducted and the farmers were selling only non-laying hens.

Feeding Enroute to Market

In discussing an important market problem, the U. S. Food Administration last September said to correct a frequent source of loss in marketing poultry, the producer must not overfeed them just before offering them for sale. This practice is especially bad in warm weather when it often causes sickness and even death.

Feed given poultry closely confined in crates should not exceed one ounce of grain or other dry feed for every two pounds of live weight. Persons are sometimes tempted to feed fowls heavily just before marketing, in the hope of receiving poultry prices for the feed contained in the bird's crop. But in actual practice this is a loss both in money and feed. Birds frequently die in farmers' wagons, but more shortly after they are delivered. In either case a loss is sustained which is ultimately reflected back to producers.

Poultry in crates are unable to exercise. More than that, the watering cups are seldom adequate for all the fowls in the crate, either from lack of attention, evaporation, losses from spilling or several of these causes combined.

Food consequently cakes in the overfull crops, causing sickness and death. In warm weather, heavy feeding also results in over-heating and is another cause of mortality. The Food Administration pointed out the desirability of more water and less feed for poultry just before marketing. Experienced poultry handlers have recognized the soundness of this request and during hot weather give their fowls an abundance of clean water, but a mere maintenance ration. This practice has greatly re-

duced losses in handling live poultry. While I believe the main portion of the advice as given by the Food Administration, and think it unwise to get the crops of the fowls in the hope of getting pay for that much more weight at the same time I cannot understand the part that says that owing to lack of exercise and the absence of water, drink, the food cakes in the crops, causing sickness and death. To that seems like rather overdrawn.

For over thirty years I have been shipping poultry to all parts of United States and to foreign countries. While I put a drinking cup in the crate and fill it with water when the shipment starts and tack a notice on the crate asking the railroad employees to place water; also put a lot of feed in the crate so the fowls can help themselves. I have never had a complaint of death in shipments, but have had the information from the recipient that the fowls arrived very thirsty, as the drinking cups were dry. This went to show that the railroad employees did not pay attention to my request to water the stock. So in lieu of this experience covering so many years—and it is the experience of thousands of other poultrymen—I cannot accept the culling-in-the-crop stuff. The rest of it is all right.—MICHAEL K. BOYER in American Poultry Advocate.

Culling Flock Pays

That 200 hens of a flock of 600 kept by a Wisconsin poultryman had ceased to be paying guests was demonstrated by culling the flock. In two and one-half hours, J. G. Halpin, poultry bandman at the College of Agriculture, culled out 200 hens. During the next four days the 200 culled hens averaged nine eggs a day; the remaining hens averaged close to 200 eggs a day. The 200 hens which Mr. Halpin considered not worth keeping were well fed, preparation for market, and most of them were shipped at the end of the four-day period, so that the egg record of the two lots could not be extended.

State-wide interest in making poultry profitable has brought about various county campaigns in Wisconsin, in which members of the poultry department demonstrate culling of flocks. Several counties are already on the list of those that will reduce the number of "board hens" before winter and higher feed prices begin.

Poultry Culling Campaign

A statewide poultry culling campaign is under way in Missouri. This campaign is being carried out through the agency of the county farm bureau. It will continue through the months of August, September, and October in practically every county of the state. Its purpose is to get rid of the unprofitable hens in each farm poultry flock. It is stated that approximately forty per cent of the hens in an average farm flock will not lay enough eggs to pay for their feed.

A similar culling campaign was conducted last fall in forty-four counties of Missouri and 280,000 low producing hens were reported sold with an estimated saving of \$177,800 worth of feed. The aim of this campaign is to bring to every poultryman in the state the information on how to pick out the poor layers. It is done by giving culling demonstrations in each community.

Hogs that are to be exhibited at the fairs should be serum treated before being shipped if not already immune.

Destroy the weeds before the seeds mature. It will be time well employed.

Practical Books for Progressive Farmers

Every farm home ought to contain one or all of the practical books on agricultural subjects described on this page. All of these books have had large sales and many will be found in Kansas farm homes. Read the descriptions of the books and if there are any here which you do not already possess, order it now at the bargain price. Do not delay ordering, even if you are too busy to read now. We have only a small supply of these books, especially the best ones. After our present stock is exhausted we will not be able to offer the books at these prices, and some of them we will not be able to get at all. Therefore, take our advice and order now.



BORMAN'S BOOK ON SORGHUMS

This book shows how kafir, milo and cane fed to live stock will increase your farm cash and feed income. It is a book not only of value to sorghum growers, but is equally valuable to every farmer of the Southwest, whether he grows sorghums or other crops.

This book is printed in large, clear type, on a fine quality of book paper, and is full of illustrations. It contains 310 pages and is substantially bound in cloth.

PRICE, \$1.25, or given with one yearly subscription to Kansas Farmer at \$1.75.

The Story of the Soil

This valuable book by Cyril G. Hopkins is written in novel form and is as interesting as any novel you ever read. But the book is not published for pleasure only. It contains the essential facts of how to fertilize, how to restore flooded or worn out lands, what are the plant foods, soil formation, etc. This is printed in large clear type on fine quality book paper and contains 360 pages.

PRICE, 50 CENTS, or given free with one yearly subscription to Kansas Farmer at \$1.00.

Farming and Gardening

Here is another valuable book containing rare information on field crops, vegetable and trucking crops, fruit culture, forestry, injurious insects and diseases and how to combat them. It also contains a chapter on The Silo and a chapter on Making Poultry Pay. This is a large book containing over 500 pages. It is profusely illustrated, printed on excellent quality book paper.

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Profitable Stock Feeding

By H. R. Smith

Any farmer or stockman can get valuable hints out of this book. It is not written for the beginner, but for the farmer and stockman who already has had successful experience in stock feeding. It covers feeding for milk production, feeding for beef production, feeding sheep, feeding hogs, feeding poultry and feeding horses. This book contains 412 pages printed in clear type on heavy book paper, illustrated.

PRICE \$1.00, or given with one yearly subscription to Kansas Farmer at \$1.50.

Handy Book of Facts

This is a book of general information, not about farms and farming, but business, law, medicine, history, etc. It contains information of every day use on almost every subject. The book contains over 250 large pages, every page crammed full of information and statistics, things you are likely to want to know any day.

PRICE, 75 CENTS, or given with one yearly subscription to Kansas Farmer at \$1.25.

ROPP'S COMMERCIAL CALCULATOR



This book is a short cut in arithmetic. It contains grain tables, interest tables, discount tables, weights, measurements, etc., so that by simply referring to the tables you can get the answer to your problems without figuring them out.

PRICE, 25 CENTS, or given free with one yearly subscription to Kansas Farmer at \$1.00.

Cement Workers' Handbook

This book is written not for the professional cement worker, but for the man who intends to do his own cement work at home. It covers more than fifty subjects on cement and its uses in construction, including posts, floors, ceilings, walls, silos, and many others. This little book is nicely gotten up, is printed on good book paper and bound in cloth. It contains 100 pages.

PRICE, 25 CENTS, or given free with one yearly subscription to Kansas Farmer at \$1.00.

ATLAS OF THE WORLD'S WAR

This is a large 64-page paper-covered book full of information, maps, charts and diagrams about the late war. This atlas was published just before the close of the war and while the maps and information are accurate, it does not contain information as to happenings after November, 1918, and for this reason we were able to purchase them at a bargain and can offer them at the price of 25 cents each.

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One carload fresh Holstein Cows—One carload heavy Springers
These cattle are extra good. A few choice registered bulls.
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FEDERAL AND STATE TUBERCULIN TESTED.
The first fourteen cows to finish the A. R. O. yearly test on our farm averaged 13,329.6 pounds milk, 522.6 pounds butter fat, in 348 days, and eight were first calf heifers, and we are breeding them better. Our last bull calf went to St. Joseph Orphanage, Abilene, Kan. The man who buys a bull from our herd finds us working for him all the time. Our Aim—Production, Individuality and Breeding.

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For Sale—Five young Scotch bulls and ten head of females, bred or calves at foot.
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Some choice stallions and mares for sale. All registered. Terms.
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I will sell twenty registered Percheron horses, stallions, mares and colts, serviceable and well bred, at public sale, October 15, 1919.

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A choice lot of extra well bred gilts bred for late farrow. Few fall boars.
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Bargain prices. Satisfaction guaranteed.
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A Few Fall Pigs.
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Townview Farm Peabody, Kansas

MYERS' POLAND CHINAS

Large spring pigs in pairs or trios, priced to sell. Write your wants. Annual fall sale October 14.
H. E. MYERS **GARDNER, KANSAS**

POLAND CHINA BOARS

For Sale—25 Spring Boars by Giant Lunger by Disher's Giant and out of Old Lady Lunger, from my best herd sows. These pigs are good, the tops from 80 head, priced reasonable.

H. R. Wenrich, Oxford, Kan.

SPOTTED POLAND CHINAS.

SPOTTED POLANDS.
Last call for early boars. Order gilts early.
T. T. Langford & Sons, Jamesport, Mo.

JERSEY CATTLE.**BROOKSIDE JERSEYS**

REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SILVIA, KANSAS.

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Registered Jersey bulls of choice breeding from high producing cows. Ready for Service. Priced low. U. S. Government tuberculin test.
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CLAIM SALE DATES.

Percheron Horses.
Oct. 15—P. E. Lill, Mt. Hope, Kansas.

Shorthorns.
Oct. 8—Franklin County Shorthorn Sale, Ottawa, Kansas.

Holsteins.
Nov. 14—Holstein Calf Club Sale, Tonganoxie, Kan. W. J. O'Brien, manager.
Nov. 15—Breeders' Holstein Sale, Tonganoxie, Kan. W. J. O'Brien, manager.

Poland Chinas.

Sept. 27—Ketter Bros., Seneca, Kan.
Oct. 3—Ezra T. Warren, Clearwater, Kan.
Oct. 4—Geo. Morton, Oxford, Kan.
Oct. 7—Jones Bros., Hiawatha, Kan.
Oct. 8—Dr. J. H. Lomax, Leona, Kan.
Oct. 9—Herman Groninger & Son, Bendena, Kan.

Oct. 6—Ross & Vincent, Sterling, Kan.

Oct. 13—H. L. Glover, Grandview, Mo.

Oct. 29—C. M. Hettick & Sons, Corning, Kan.

Oct. 14—H. E. Myers, Gardner, Kan.

Oct. 15—H. B. Walter & Son, Effingham, Kan.

Oct. 16—A. J. Erhart & Son, Ness City, Kan.

Oct. 17—Adams & Mason, Gypsum, Kan.

Oct. 20—P. M. Anderson, Holt, Mo.

Oct. 22—Fred G. Laptad, Lawrence, Kan.

Oct. 23—McClelland & Sons, Blair, Kan.
Oct. 24—Dubauch Bros., Watons, Kan.
Oct. 30—John D. Henry, Leocompton, Kan.
Feb. 11—Ross & Vincent, Sterling, Kan.

Durocs.
Oct. 22—Fred G. Laptad, Lawrence, Kan.
Nov. 7—Kempin Bros., Corning, Kan.
Feb. 14—John W. Pettford, Saffordville, Kan.

Spotted Poland Chinas.
Feb. 14—R. W. Sonnenmoser, Weston, Mo.
Oct. 11—R. W. Sonnenmoser, Weston, Mo.

Chester Whites.
Oct. 21—Chester White Pig Club Sale, Tonganoxie, Kan. W. J. O'Brien, manager.

Everett Hayes, of Manhattan, Kansas, has announced September 2 for his annual sale of Spotted Poland Chinas. Mr. Hayes is the owner of one of the best herds of Spotted Poland Chinas in Kansas and has catalogued thirty head of large tried sows that will farrow litters early in September. These hogs have been grown in a way that will insure their future usefulness. The Spotted Poland are making good for farmers in Kansas and Mr. Hayes owns the profitable kind.

I. W. Poulton, the well known breeder of Red Polled cattle, dispersed a part of his herd in a public auction sale on August 2. The weather conditions for a cattle sale were unfavorable to obtain good prices. The offering sold for an average of \$116, including several cows with heifer calves at foot and rebred. The cattle were presented in splendid breeding condition and should have brought more money. Each lot was a sacrifice by Mr. Poulton, but was at such prices as will insure each purchaser a good profit on the investment in big class breeding stock. J. H. Ferguson and E. Chellis, of Gypsum, Kansas, were the purchasers of about one-half the offering.

J. H. Ferguson, of Gypsum, Kansas, is building up one of the good herds of Red Polled cattle in Kansas. He has been five years developing this herd to a high standard of perfection and has several cows in the herd with large milk production. A feature of the herd at this time is a choice lot of young spring heifers that promises to make extra large cows, with good pedigree back of them.

Barrett & Land, of Overbrook, Kansas, owns one of the good herds of Shorthorns in Kansas. The herd now numbers 175 head of registered cattle. They have used a son of Prince Valentine 4th at the head of the herd for several years and have a splendid lot of calves from this mating. Sultan now heads the herd and is proving a good breeder of the right type of cattle. The future of the herd at this time is a splendid lot of young bulls now in the herd that show exceptional breeding quality. Barrett & Land have been breeding Shorthorn cattle for eight years and claim registered Shorthorn cattle of the very best breeding they could buy have made them more money than anything produced from the farm.

"Don't Cry Over Spilt Milk"

It's good advice, crying will not save the milk, but this old adage also infers that we should prevent the spill.

There is a big spill in the dairy world today. Out through the great Middle West and into the Rocky Mountain region a drought has been prevailing of more or less severity. This is not new we have these in various parts of the country every year, the kind of drought which burns up the blue grass and renders it tough, hard and dry. This weather also seems to breed flies, and the dairy cow is put to the most severe test of the whole year. Professor Van Pelt has aptly summed up the severity of this season when he says that if this period extended six months it would either kill or ruin the bulk of the dairy cows of the country. Every milk producer knows the trials of July and August. Hot nights, dry pastures, poor water, flies and mosquitos, and everything to torment the peace and quiet of the gentle cow. Reports from most of the creamery sections indicate that the shrinkage in production from June 15 to August 1 has already ranged from twenty-five to forty-five per cent. This in terms of millions would astound the nation, for it truly runs into scores of millions of dollars in many of the prominent dairy states. A good deal of this spill can be prevented, and that without much expense. The summer silo is the cheapest and most practical way to combat this season.

Good silage can always be had, and at this time it can be more profitable and better feed than pasture which in most cases is a minus quantity. A very good use for corn or other green feed is to give it to the cows and prevent this big shrink. No cow-keeper ever made money by allowing his animals to shrink and fall off in milk when there was a good corn field over the fence and a corn knife handy. A stable that can be darkened by curtains will largely solve the fly question; and with a good supply of succulent feed and fresh clean water, the dairy cow can be made to produce in dog days as in the days of early June. The poor unprofitable winter strippers are now being manufactured and multi-

SPOTTED POLAND CHINA BRED SOW SALE

IN COLLEGE SALE PAVILION
MANHATTAN, KANSAS

Tuesday, Sept. 2, 1919

THIRTY HEAD LARGE SOWS AND FALL YEARLINGS

I am offering the best lot of tried sows and gilts that I have ever sold. Most of the offering are sows that have raised good even litters. They will all be bred and safe for early fall litters, bred to Faulkner's Model, Spotted Lad, and Hayes' Model.

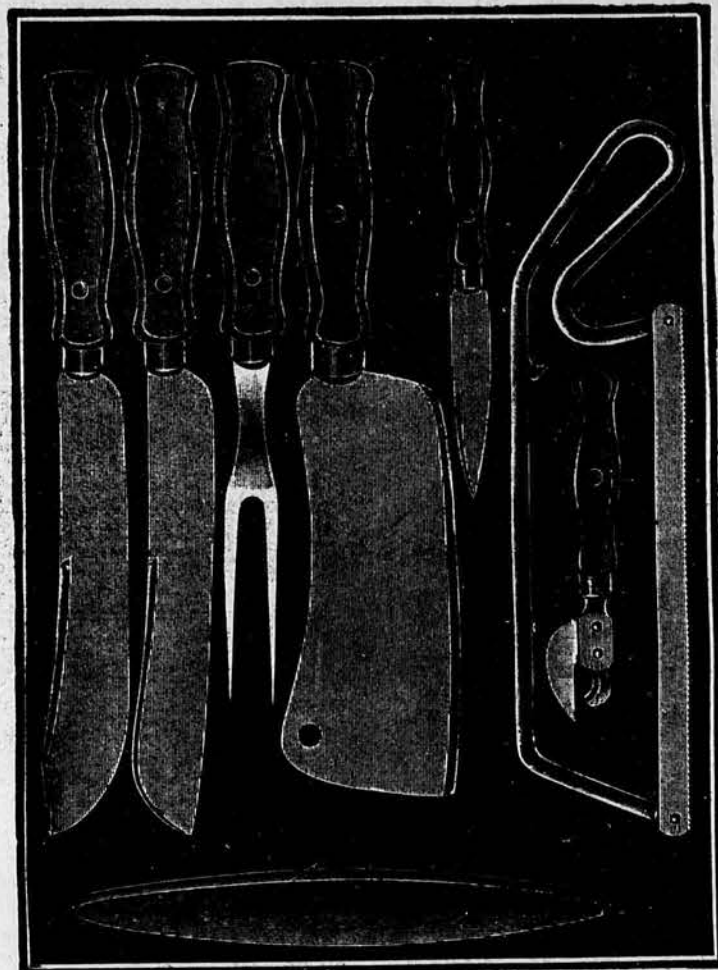


Come to this sale if you want hogs that will make you money.

EVERETT HAYES
MANHATTAN, KANSAS

Auctioneer—L. R. Brady, Manhattan, Kansas

Eight Piece Kitchen Set FREE



This fine and useful eight-piece Kitchen Set, consisting of bread knife, carving knife and fork, meat cleaver, meat saw, paring knife, can opener and sharpening stone, is a practical necessity in every household. The bread knife and carving knife have eight-inch blades, the cleaver a five-inch blade, and the other articles are in proportion as shown in illustration. Every article in the set is guaranteed and will be replaced if found defective. It is a genuinely good kitchen outfit. Send for yours today.

SPECIAL OFFER.—Send us two yearly subscriptions to Kansas Farmer at \$1.00 each—\$2.00 in all—and we will send you FREE and POSTPAID one of these eight-piece Kitchen Sets. Use order blank below.

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Humphrey, secretary, Pratt.
Republic County Agricultural Association—Dr. W. R. Barnard, secretary, Belleville; August 19-22.
Rooks County Fair Association—F. M. Smith, secretary, Stockton; September 2-5.
Russell County Fair Association—H. A. Dawson, secretary, Russell; September 30-October 3.
Smith County Fair Association—J. M. Davis, secretary, Smith Center; September 2-5.
Trego County Fair Association—S. J. Straw, secretary, Wakeeney; September 9-12.
Wilson County Fair Association—Ed Chapman, secretary, Fredonia; August 18-23.
Vinland Free Fair, October 3-4.

Tuberculosis Conference

The first conference ever held in this country for the exclusive study of tuberculosis in animals has been called by Dr. Mohler, chief of the Bureau of Animal Industry, United States Department of Agriculture, to be held in Chicago October 6 to 8, in connection with the National Dairy Show. The conference will be attended by federal and state officials and veterinarians interested in

the control of tuberculosis, and the purpose will be to discuss various phases of the tuberculosis-eradication campaign. Plans will be made to work out uniform methods of conducting the campaign in various states, a feature favored by practically every state sanitary official who is authorized by state law to control and eradicate live stock diseases. The program, which will include addresses by federal and state officials, will be announced in the near future.

"It ain't the guns nor armanent, nor funds that they can pay,
But the close co-operation that makes them win the day;
It ain't the individual, nor the army as a whole,
But the everlastin' team work of every bloomin' soul."—KIPLING.

Change of pasture is good for sheep.

plied by tens of thousands. It is worthy of a hard fight to prevent this spill, but it seems to me that the time has come when there should be universal effort to meet this trying season. Our friends in the northeast tier of states have little trouble with the dog-day shrink, for their pastures are more likely to be green. This advantage has made them prominent dairy states, but outside of this short season they have no advantage—in fact in many sections further south, forage is cheaper and more plentiful, while the winter months are less severe. Winter dairying has been advocated for many years as a cure for this shrink season, but for some reason it has not been put into general practice.

In closing, I wish to make the statement that it is possible to prevent at least seventy-five per cent of this shrinkage, and it is not only possible, but very profitable to practice the methods of prevention. With a few commodities and plenty of succulent feed to the dairy cow there will be no spilt milk to cry over.—A. L. HAECKER.

Kansas Fairs in 1919

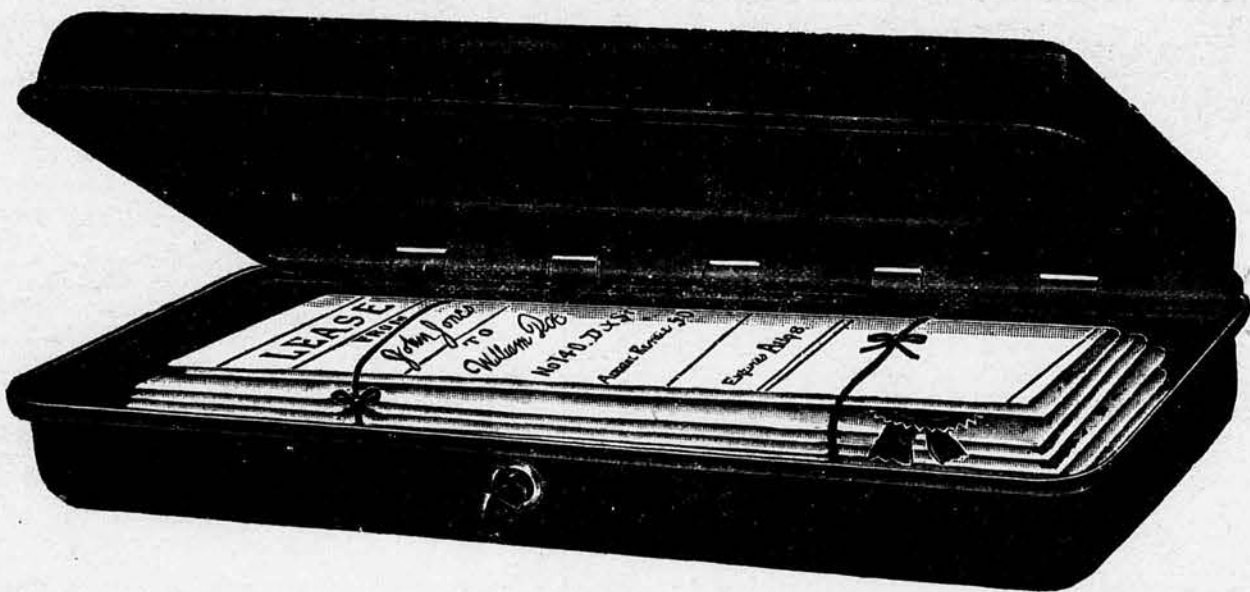
The following is a list of the fairs to be held in Kansas in 1919, their dates (where such have been decided on), locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary J. C. Mohler:

Kansas State Fair—A. L. Sponsler, secretary, Hutchinson; September 13-20.
Kansas Free Fair Association—Phil Eastman, secretary, Topeka; September 8-13.
International Wheat Show—E. F. McIntyre, general manager, Wichita; September 29-October 11.
Allen County Agricultural Society—Dr. F. E. Beattie, secretary, Iola; September 2-5.
Allen County-Moran Agricultural Fair Association—E. N. McCormack, secretary, Moran; September 3-5.
Barton County Fair Association—Porter Young, secretary, Great Bend; September 26-October 3.
Borbon County Fair Association—W. A. Ewald, secretary, Uniontown; September 9-12.
Brown County-Hiawatha Fair Association—J. D. Weltmer, secretary, Hiawatha; August 26-29.
Clay County Fair Association—O. B. Burdette, secretary, Clay Center; September 1-5.
Cloud County Fair Association—W. H. Danenbarger, secretary, Concordia; August 24-26.

Coffey County Agricultural Fair Association—C. T. Sherwood, secretary, Burlington; October 5-10.
Comanche County Agricultural Fair Association—A. L. Beeley, secretary, Coldwater; September 10-13.
Cowley County-Eastern Cowley County Fair Association—W. A. Bowden, secretary, Burden; September 3-5.
Dickinson County Fair Association—T. R. Conklin, president, Abilene; September 16-19.
Douglas County Fair and Agricultural Society—W. E. Spaulding, secretary, Lawrence.
Ellsworth County Agricultural and Fair Association—W. Clyde Wolfe, secretary, Ellsworth; September 2-5.
Ellsworth County—Wilson Co-operative Fair Association—C. A. Kyner, secretary, Wilson; September 23-26.
Franklin County Agricultural Society—L. C. Jones, secretary, Ottawa; September 23-26.
Franklin County—Lane Agricultural Fair Association—Floyd B. Martin, secretary, Lane; September 5-6.
Gray County Fair Association—C. C. Isely, secretary, Cimarron; September 30-October 3.
Greenwood County Fair Association—William Bays, secretary, Eureka; August 26-29.
Harper County—The Anthony Fair Association—L. G. Jennings, secretary, Anthony; August 12-15.
Haskell County Fair Association—Frank McCoy, secretary, Sublette; about September 15.
Jefferson County—Valley Falls Fair and Stock Show—V. P. Murray, secretary, Valley Falls; September 2-5.
Labette County Fair Association—Clarence Montgomery, secretary, Oswego; September 24-27.
Lincoln County—Sylvan Grove Fair and Agricultural Association—Glenn C. Calene, secretary, Sylvan Grove; September 2-5.
Lincoln County Agricultural and Fair Association—Ed M. Pepper, secretary, Lincoln; September 9-12.
Linn County Fair Association—C. A. McMullen, secretary, Mound City.
Marshall County Stock Show and Fair Association—J. N. Wanamaker, secretary, Blue Rapids; October 7-10.
Meade County Fair Association—Frank Fuhr, secretary, Meade; September 2-5.
Mitchell County Fair Association—W. S. Gabel, secretary, Beloit; September 30-October 4.
Montgomery County Fair Association—Elliott Irvin, president, Coffeyville; September 16-20.
Morris County Fair Association—H. A. Clyborne, secretary, Council Grove; October 7-10.
Nemaha Fair Association—J. P. Hielzer, secretary, Seneca; September 2-5.
Neosho County Agricultural Society—Geo. E. Bideau, secretary, Chanute; September 29-October 3.
Norton County Agricultural Association—A. J. Johnson, secretary, Norton; August 26-29.
Pawnee County Agricultural Association—H. M. Lawton, secretary, Larned; September 24-26.
Phillips County—Four-County Fair Association—Abram Troup, secretary, Logan; September 9-12.
Pottawatomie County—Onaga Stock Show and Carnival—C. Haughawout, secretary, Onaga; September 24-26.
Pratt County Fair Association—W. O.

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