

KANSAS FARMER

For the improvement



of the Farm and Home



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Established 1863. \$1 a Year

STOCK FARMING DEPENDABLE

A Diversity of Crops and Good Live Stock Safe and Profitable Combination

THE general principles of good farming are very much the same everywhere whatever may be the local problems. After once thoroughly understanding the principles of farming, the matter of farming in different sections consists largely in adapting local conditions and crops to these fundamental principles. The following was written by George Frerichs, of Illinois, a farmer who has made a success largely through his understanding of general principles and his adherence closely to the rule that good live stock must be combined with crop production in order to secure the largest returns and keep up yields. He says:

"Thirty-five years ago I landed in this country with twenty-seven dollars. Since then I have raised eight children and now own over 700 acres of land worth \$300 per acre. Careful live stock farming has made the money.

"I first took to the growing of big crops, for without that no man can make a success of farming. A half crop won't do. Some people seem to think that if they get a good living that is enough. If the farmer only stops to think, he can plainly see that it takes a good deal of money to carry his farm from one year to the next, and that if his farm is not made to produce maximum crops it is not making all for its owner that is possible to get out of it. If you own your own farm, your money is invested in that land. If you make the soil respond in big crops, you may credit your profits in terms of interest on the investment. If you only half farm it, the expense is greater than the crop will bring when sold. In that case, a farmer is not only being deprived of his interest, but he is being compelled to use up some of the principal. I need only to mention this fact, for all of us know dozens of farmers of our own acquaintance who are standing still financially and some of them going backwards for the very reason I have pointed out.

"To grow big crops it is necessary to have rich soil and to have the land properly tilled. After that comes the careful preservation of the ripened product, grain, hay, or whatever it may be. Rich soil is made where manure and leguminous roughages are found in abundance. Live stock farming provides for both of these. We ordinarily have around 300 acres of small grain to thresh, and instead of seeing how much of this straw we can have on hand the next spring, we see how much of it we can use. We sell straw to teamsters in Gilman, near by, at \$2 a load, and they return us a load of manure when they come for more straw. We bed all our live stock generously during the winter, so that we usually have little straw left the following June. We keep a good many horses and cattle, which makes a good deal of manure, and by using plenty of straw we are able to save this manure and get it onto our fields, instead of leaving it to deteriorate or to be lost entirely around the barn lot. Because we need lots of alfalfa and clover hay for our Percheron horses and Shorthorn cattle, we have an abundance of leguminous roughages to keep up the fertility of our

land. Here again maintaining the productive power of the soil and the growing of live stock work together most advantageously. The more live stock we keep, the more of this kind of feed we need, which means more nitrogen returned to the soil from whence it came. Live stock farming, rightly carried on, never robs the fertility of the land, but always adds to its richness.

"We are able to till our land well because we use big draft horses. They are able to pull the big machinery, and we don't have to be afraid to let our plows in the ground or set the harrows up straight. When five and six of these big mares, weighing 1,700 pounds or more, are hitched to one implement and driven across the field, one can see what has been done. It is not only a big advantage to a crop to be placed in a seed bed that has been thoroughly pulverized, but there is the added factor of having the crop in on time. By using plenty of horse power we stir our soil up well, and we do it in a hurry. With the seasons like they have been for the past three or four years, we find that we can outdo our neighbors who use small horses, because our equipment in horses and tools enables us to get our crops planted in better shape and in a good deal less time. We have the same advantage when it comes to harvesting a crop. There was a time when a young man thought all he needed to start farming was a twelve-inch walking plow, a ten-foot harrow, a wagon and a pair of plug horses. That won't do any more, though. One can't rent a farm in the better farming sections unless he has better equipment than this. The reason is that with present prices of all food products and the expense of operating a farm, no man can make any money for himself, or his landlord, either, unless he is equipped to till the farm well and get crops in at the right time. - I feel posi-

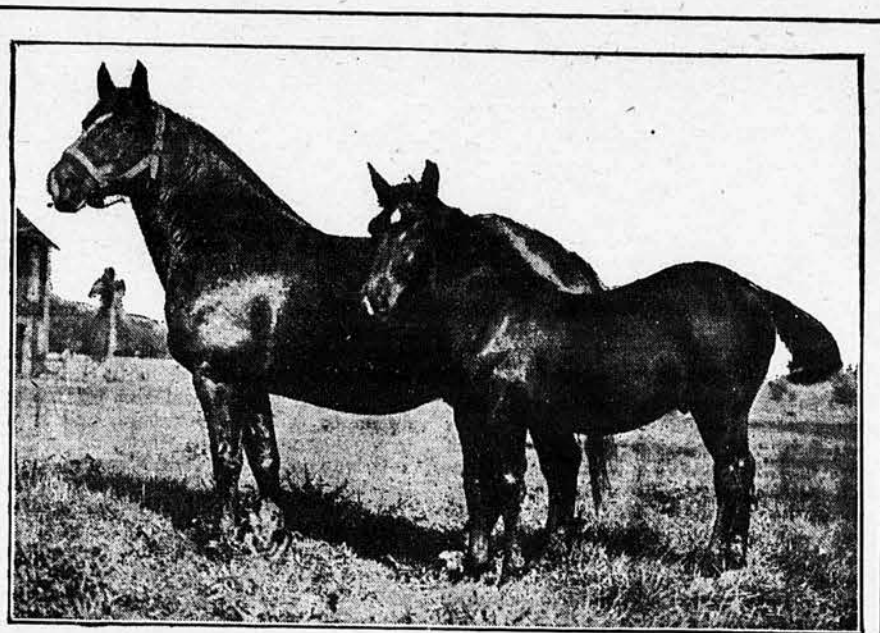
tive that a great deal of the money I have made should be credited to our good outfit of horses and tools.

"The crop, once raised, should be marketed through live stock. Instead of selling off the fertility of the soil, every possible bit of richness should be turned back to the land. Even when crops are fed to live stock and the manure is carefully saved, only about 75 per cent of its fertilizing value can be returned to the fields. Leguminous crops, so beneficial to our soil, are the most desirable roughage for growing draft colts and cattle. I have kept an account of the amount of oats our foals have eaten over a period of years, and the figures show that I have gotten a dollar for every bushel of oats the youngsters have consumed. Grow plenty of grasses, pasture them off, and get the manure out on the land without any expense or trouble in handling it. Cover crops conserve soil moisture in the fall and make excellent feed for growing animals when the regular grasses are burned up with the blazing August sun. Grasses, and roughages particularly, bring several times their value if fed into good live stock instead of being sold on the market as a separate product.

"The kind of live stock one keeps determines the profits from the farm business. The best always make the most money in the end, if rightly handled. Cattle and hogs go together. The fat or lard type of hog fits in best with the cattle business under corn belt conditions. I have always been a strong advocate of the cow that will produce a good beef calf and in addition enough milk to raise it well and have some left for the table. If more of this kind of cattle were used through the country we wouldn't have the present shortage in beef. The cutting up of ranches in the west into smaller holdings, and poor crops through the corn belt states have

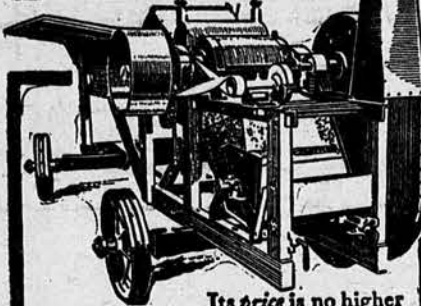
curtailed this industry alarmingly. The time is upon us when every farmer ought to be raising a few good beef calves every year, and there is no mother that will do it so well nor so cheaply as a good milking Shorthorn cow.

"I have always been interested in good horses and I suppose I always will be. When I came to this country I set about to breed the best class of draft horses I could produce. In fact I was the first man to sell a grade draft horse out of this county for \$300, and, so far as I know, I am the only man who ever sold a grade team of drafters from this community for \$775 for the pair. I have bought and sold weanling Percherons for \$400 to \$500 a head. Last fall I sold a six-year-old imported Percheron stallion for \$7,000. It is true he is a good individual and a great breeder, but I would never have been able to consummate this sale if I hadn't selected good mares to mate with him and then given the offspring the very best attention in feed and care. The great secret in producing draft horses successfully is to know how to develop them. Breeding is equally as important as feeding in making good draft horses, but the average man needs to pay more attention to the feed. Most anybody knows that the better animals we mate together, the better colts we will get, but people almost invariably neglect nourishment after the youngster leaves the teat. If a man knows how to take care of draft horses, the better kind he keeps the more money he will make. Corn belt land has become too high priced to use common grade stock and make the greatest profits possible. I am referring now to horses in particular, but the same rule applies to all other classes of farm animals. I could use good grade draft mares and do my work just as efficiently as I do it with pure-breds, but the colts the grade mares would produce wouldn't bring over one-third as much as average pure-breds. If you had an extra good pure-bred, he would sell right off the mare for five or six times as much as a grade colt. The one kind does not eat any more than the other; it is just as much trouble to raise a grade colt as if he were a pure-bred; but there is a wide margin in the selling price. Furthermore, pure-bred colts, if they have been well fed, sell readily at weaning time, whereas grade colts have to be top-notchers to sell very easily at that age. They wouldn't bring over \$75 to \$100, and the other kind find good homes at \$300 to \$500, and even sometimes above that figure. I have enough confidence in the horse business to believe that even a renter, if he takes good care of his horses, can well afford to use pure-bred mares. I am very certain that if I were to begin all over again I would begin that very way. The one question a farmer should ask himself and decide upon before going into the pure-bred draft horse business is, 'Do I know how to take care of horses rightly?' If you do, then you can't go wrong. Select the breed you like best. I chose the Percheron because it is the most popular breed in America, and I know every time I produce a good colt of that parentage, I won't have to hunt or beg for a buyer."



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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

ONE of the big farm machinery companies announced early in the season that it had under way plans to assist farmers to repair old farm machinery instead of buying new. It was explained that it is almost impossible to get sufficient material to fill orders for new machinery and this systematic effort to repair old machinery seems almost a necessity.

Do not screw spark plugs in too tight. Some plugs are constructed of extremely brittle material and in screwing them in the cylinder head very small cracks are developed in the insulating material of the plug. If the thread of the spark plug and the thread of the cylinder head are anywhere near true, a wrench six inches long will screw the plug in as tight as is necessary. A little graphite in the cylinder head will keep the plug tight as is necessary, and also make removal easy.

Clean Out Clogged Radiator

When a tractor engine becomes overheated, the difficulty can quite often be traced to a clogged cooling system. Very few operators systematically flush the radiator of their engines. They are constantly being filled from all kinds of buckets and pails and in the course of time become clogged with dirt and sediment. When left too long, this accumulated sediment cannot be removed by simply flushing out the radiator. When this happens, try filling the radiator with water in which one pound of carbonate of soda has been dissolved to each gallon of water. This will soon loosen the sediment and it can be flushed out and the radiator will perform its cooling function as intended.

Tractor Demonstration

The committee in charge of the National Tractor Demonstration to be held under the auspices of the National Tractor & Thresher Association, has selected a tract of land for the demonstration containing more than 3,000 acres, all of which is within two miles of a central headquarters. This is the same location that has been used for demonstration purposes at Fremont, Nebraska, during the past four years.

A. E. Hildebrand, who had charge of the series of national demonstrations held last year, has been appointed manager of the 1917 event, which will be held at Fremont, Nebraska, the week of August 6.

Watch Spark Lever

In order to use gasoline economically, keep the spark lever advanced as far as possible without causing the engine to knock or labor. When the spark is well advanced, combustion occurs at the point of highest compression, when the gasoline is thoroughly vaporized. This gives a maximum of power.

Hill climbing is easier with a retarded spark, but it heats the engine and of course uses more gasoline. This is necessary whenever the load is heavy.

It is always a good plan to accelerate carefully. It is poor policy to accelerate quickly, causing the car to shoot forward quickly under the rapidly increased flow of gas. The motor cannot derive all the power the gas contains because it will not vaporize thoroughly. This is a means of showing off in a spectacular way, but it is a wasteful practice and is not a mark of good driving.

Feed Threshers Carefully

Improper feeding of threshing machines causes larger losses of grain each year. It will pay to watch how this work is being done and insist that workmen use proper care. The bundles should be fed head first—never butt first—and in a constant stream. By feeding properly no unequal strains are placed on the separator, belt, or tractor. The cylinder, rack and shoe can perform their functions properly without being first overloaded and then underloaded.

By feeding heads first the cylinder can do the work for which it is intended. If butts are fed first, the threshing at

the cylinder is decreased, and consequently some of the grain finds its way to the stack. A machine adjusted for a certain amount of straw cannot handle much more or less efficiently. Even feeding makes it possible for all parts of the machine to do their share.

The threshing machine should run at a constant speed to do good work, but the proper speed cannot be maintained unless the feeding is uniform. If every farmer will insist that his men pitch the bundles head first and evenly, a great loss will be stopped.

Getting Service from Tires

Automobile tires are getting higher and higher in price. It is becoming a matter of considerable importance to make them last as long as possible. The service a tire gives depends to a considerable extent on the way the car is handled by the driver. If the tires wear out regularly with two or three thousand miles of driving, the driver is usually to blame.

There are many ways in which the driver can increase his tire mileage, whatever the make of tires used. It will save tires to use the brake as little as possible. In stopping the car, throw out the clutch so it will stop naturally rather than by friction on the tires. Of course the driver must make a study of this method of stopping. In starting, always throw in the clutch easily. Turn corners slowly so there will be no skidding on the pavement or road. There is four times as much tendency for the tires to roll off in turning a corner at a speed of twenty miles an hour as there is at ten miles.

In the summer time many tire troubles can be prevented by keeping the tires cool. Speed makes the tires hot and also increases the pressure. If the air pressure becomes too great, there will be an increased tendency for blow-outs. Always keep the tires at the pressure recommended by the manufacturer.

When driving on a very hot day, it will often save money in tires to turn the hose on them occasionally. Some drivers make a practice of pouring a bucket of water over the tires every twenty-five miles when driving on a hot day.

Tire mileage can be increased by changing tires from front to the rear. The rear tire always has the hardest service, and by placing the rear tire on the front wheel it is given a rest and will last longer. It is claimed by some that the spare tire frequently carried will give much better service when finally used if it is put on and run for a hundred miles before being placed in the tire carrier.

Disk Follows Binder

Seldom is there power enough available to plow wheat land immediately following harvest. According to the Hutchinson News, Grover Lee of Pratt County is cutting, binding and shocking his 1917 wheat and at the same time disking the ground for the 1918 crop, all in one operation.

Mr. Lee is using a big oil-burning tractor, which is operated at a cost of fourteen to sixteen cents per acre for fuel, he figures. The tractor pulls the binder and shocker and also a tandem disk. The wheat was all cut and well bound and shocked.

The disk was doing extra good work and the shocker was placing the shocks on the disked ground as the big engine kept going along never having to stop and rest.

It was an eight-foot binder and shocker and a tandem disk with thirty-two disks. The ground was put in fine condition to conserve moisture, and it was in good order for the work.

It was estimated that it would require fourteen horses and at least four men to do the work that the two men and the tractor were doing.

Everybody means to plow immediately after harvest, but by the time he gets the work started a lot of moisture is gone and it is soon "too dry to plow." This disk following the binder does the work "right now," and the results for good are expected to show up in the next crop.

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YOUNGGREEN GOES TO WAR

Charles C. Younggreen, business manager of KANSAS FARMER, handed his resignation to the officers of the company last week to take effect immediately. Mr. Younggreen resigns to enter military service in the aviation corps. He will go into training on one of the aviation fields at once and expects to be in France in a few months.

Mr. Younggreen, who is a native-born Kansan, is a stockholder in the Kansas Farmer Company and has been identified with its business management since leaving Kansas University in 1912. He started as assistant advertising manager, was promoted to advertising manager, and when in August, 1916, Albert T. Reid, president of the company, asked to be relieved of the active management of the business, Mr. Younggreen was the logical man to assume these responsibilities. At the annual meeting of the company held in January of the present year, he was formally selected by the officers of the company as manager, which place he held until his resignation last week.

In his capacity of advertising manager and business manager, Mr. Younggreen has become widely known among advertisers and advertising agencies all over the United States. He has given addresses on various phases of agricultural advertising before advertising clubs and the students in journalism at the Kansas Agricultural College. He was one of the managers of the big tractor demonstration conducted at Hutchinson during the summer of 1915 and worked hard to make this big show a success. He has been connected with the management of the Topeka Free Fair for the past seven years, having had charge of the concessions and shows during that time. He is a member of a number of clubs and organizations, such as the Rotary Club, Press Club, and the Topeka Chamber of Commerce.

Although Mr. Younggreen's going into military service makes it necessary for him to retire abruptly from his work with KANSAS FARMER, we can assure our readers that the management of KANSAS FARMER will continue in good hands. W. J. Cody, secretary-treasurer of the company, who has for a number of years had charge of all live stock advertising, and since last summer has also been assistant advertising manager, takes up the duties Mr. Younggreen lays down to serve his country in our war with Germany.

WHY KAFIR FAILS

We recently had a conversation with C. C. Isely, of Gray County, Kansas, who told us that the kafir, milo, and feterita seeded in this county this spring is in very poor condition. He said that the seed failed to germinate and then hail and heavy rainstorms covered up or cut down what had started. His conversation indicated that the corn was in much better condition in that section than the grain sorghums. Mr. Isely seemed to take the view that farmers were unwisely urged to put out large acreages of the grain sorghums.

This report on the condition of the grain sorghum crops in that section served to emphasize the absolute necessity of planting seed kafir, milo, or feterita instead of planting just grain of these crops. KANSAS FARMER has preached in season and out for many years that seed of the grain sorghums must be carefully selected and stored in the head. In no other way can thoroughly dependable seed be obtained. Careless handling is much more serious with the grain sorghums than with corn. There is no questioning the adaptability of these crops to stand more dry weather than corn, but in order to get them started right the seed must be handled so as to be strong and vigorous in its germination. We have seen demonstrations in the field time and again that proved the value of saving seed of these crops as suggested. Poor vitality of the

seed commonly planted is one of the serious drawbacks to success in growing grain sorghums. Properly handled seed will give a good germination and the plant will survive adverse conditions when bin-stored seed absolutely fails. The grain-sorghum farmer might just as well make up his mind that he stands big chances of failure unless he selects and plants seed of these crops. That usually planted is not seed—it is simply grain.

SILLO BUILDING CAMPAIGN

A new kind of silo building demonstration is being conducted by the extension division of our Agricultural College in co-operation with the Fort Hays Branch Experiment Station. A ton and a half auto truck, carrying models of different types of silo construction, is touring a number of counties of Western Kansas. The first county covered was Ellis. A series of school-house meetings had been arranged by W. A. Boys, district agricultural agent having his headquarters at Hays. These meetings were well attended and much interest was taken in the silo as a means of saving the feed crops so as to get a larger cash return from them.

Two men thoroughly familiar with silo construction and the use of silage are traveling with this silo truck. They are not only attending meetings, but actually demonstrating to farmers along the road the different types of construction suitable for silos in that part of the state.

Seventy requests for stops were received following the first announcement of this cross country method of bringing up-to-date silo information to the farmers of Western Kansas. We feel that this is most valuable work and hope our readers in the localities covered by the silo truck will take advantage of the opportunity to get first hand information about silos and the use of silage. The silo is one of our great conservation agencies and practically every farmer in that section of the state can afford to have some kind of a silo. In fact he cannot afford to be without a silo, for in no other way can he be assured a feed supply that will make it unnecessary to ever sacrifice live stock because there is not enough feed to carry them over or keep them profitably producing.

KANSAS WEATHER

The report of the weather bureau covering conditions over Kansas up to and including July 10 shows that, while showers have been general over Kansas, only in scattering areas aggregating about a fifth of the state, mostly in the western part, has the precipitation been heavy enough to overcome the dry condition. In these areas heavy local rains have totaled from an inch to an inch and a half and in some cases two inches. The report goes on to state that the corn is clean, well cultivated, and in most places is standing the dry weather well, but is needing rain in all parts except the few localities mentioned above. It is growing slowly and is generally from two to four weeks behind the season, but no reports of actual damage from dry weather were received except from a few north central counties. We refer to this report because it shows how much dry weather corn and the sorghums can stand at their present stage of growth. Of course to stand dry weather at this time the fields must have been well prepared and kept free from weeds by proper cultivation. With a reasonable amount of rain these crops all have the chance to make profitable yields.

PRICE GUARANTEE FOR WHEAT

Nothing would give Kansas farmers a greater feeling of security in going the limit to produce a big wheat crop than a Government guaranteed minimum price. Growers must be protected against any change in conditions which might result in loss. Last week H. J. Waters,

chairman of the Kansas Council of Defense, sent the following telegram to Senator T. P. Gore, chairman of the Senate Committee on Agriculture, in reply to a message asking his judgment on the matter of fixing a minimum price on the 1918 crop of wheat:

"Because of high-priced seed, labor, and machinery, farmers hesitate to sow even normal wheat acreage unless they are protected against disastrous decline in prices if war ends before crop is sold. They consider \$2 at their station, or \$2.25 at Chicago, as a reasonable minimum price. This is about equivalent to \$1.75 last year and perhaps more than \$1.25 at their station two years ago.

"An accurate survey shows that Kansas farmers will sow one million acres less than last year unless a reasonable minimum price is fixed soon. Preparation of land and arrangements for seed must be made now. Comparison is frequently made between wheat prices here and in Europe. Wages, rents, machinery and standards of living are higher than there. It is as fair to try to base American wages on European wages as to attempt to base wheat prices on European prices."

CULTIVATE TO KILL WEEDS

It looks as though we might have to revise some of our ideas about corn cultivation. The general impression has been that keeping the surface of the ground stirred was the important factor in keeping the corn growing and in thrifty condition. For several years our experiment stations have been raising corn in plots where absolutely no cultivation was given after the corn was planted except such as was necessary to keep the weeds down. This was done by cutting the weeds off with a sharp hoe, taking care to disturb the soil as little as possible. The evidence is accumulating that destruction of weeds is the important function of cultivation.

We spent one day last week visiting the agronomy farm of the Kansas Experiment Station at Manhattan, and we noticed that the corn in the plots where nothing had been done except to cut the weeds was just as large and looked just as healthy as corn alongside cultivated in the usual manner. The corn at the time of our visit was almost waist high, and in looking over the field it would have been impossible to tell where the uncultivated rows began and left off. There had not been enough rain for several weeks and the ground was getting dry, but the cultivated plots were showing the effects of dry weather fully as much as the uncultivated plots. We remember observing this same condition a year ago. Professor Call told us that in the matter of yield there was not much difference. Of course the ground had all been given good tillage in advance of planting the crop.

This experimental work seems to point to the conclusion that corn cultivation should be of a character to keep weed growth under control. It most assuredly is an injury to corn to have a lot of its roots torn off by the cultivator. Tillage has a most important part in crop production, but in the growing of corn as much of this work should be done before the crop is planted as possible. This not only serves to make plant food available, but makes it easier to keep down the weeds.

A sixty-page book entitled "Field Management of Alfalfa" has just been published by the Emerson-Brantingham Implement Company. Its author is A. M. Ten Eyck, who is well known as an authority on this subject. The book is fully illustrated. Alfalfa is one of the important crops of Kansas and handling it is one of the problems of farm management. This book will be very helpful to those having alfalfa. It will be furnished free on request to the Agricultural Extension department of this company at Rockford, Illinois.

FARMHOUSE IMPROVED

The Kansas Engineering Experiment Station has just issued the best bulletin we have ever read on the construction of the farmhouse. Its author is W. A. Etherton, professor of rural architecture at the Agricultural College. This bulletin is not merely a book of plans, although some plans are given. In the first chapter the author states that the house plan needed by the farm owner cannot often be found. It must be made. The few plans given represent careful and original work and are introduced primarily for the purpose of explaining the text.

In the introduction it is stated that this first bulletin on farmhouses has been prepared by the Engineering Experiment Station for the purpose of answering collectively many questions which heretofore have had to be answered individually. It is designed to furnish first aid in building the new house or remodeling the old one. A careful study of its pages will help the prospective builder to a better conception of the importance of the house problem, its magnitude, its difficulties, and its possibilities. It is a matter of common experience that a lack of knowledge about such matters or overlooking some of the items pointed out in the bulletin accounts for many blunders in building. This bulletin is thus a book of reminders—not of all building items, but of many that the layman needs first to know about. The hints and suggestions offered should persuade the reader that the building of a house—a home for the family—at a cost of hundreds and perhaps thousands of dollars, is too important and difficult a task to undertake without the help of a specialist in this kind of work.

We have been watching for this bulletin for some time and find on reading it that it surpasses our expectations. It is to be regretted that it cannot be distributed free. As yet the Engineering Experiment Station has no funds for publishing bulletins, as does the Agricultural Experiment Station. This book on the farmhouse has been published through the co-operation of the National Lumber Manufacturers' Association, and Dean A. A. Potter of the Engineering Division at the Kansas Agricultural College can supply copies at a cost of fifty cents each. The book is worth far more than this necessary fee, and we would urge all who are interested in building or improving houses already built to secure a copy.

The International Soil-Products Exposition, which is held annually in connection with and under the management of the International Farm Congress, is planning a sweepstakes show at Peoria, Illinois, September 18 to 29. The International Farm Congress originated in Denver in 1907 as the Dry Farming Congress. An exposition has been held each year in connection with the sessions of the congress, the last being at El Paso, Texas. At the coming exposition fifteen state, provincial and national governments have reserved space for official exhibits. The congress and exposition are gaining in prestige and importance. Some may wonder why the exposition is to be held east of the Mississippi River. It has been so broadened in its scope since it started as a dry farming congress that it is thoroughly appropriate to hold it at this eastern location. The National Vehicle Show and the Peoria District Fair have been held as a combined event for several years, and the present year these shows also will be combined with the International Soil-Products Exposition. Kansas is represented on the Board of Governors of the Farm Congress by H. M. Bainer, agricultural commissioner of the Santa Fe Railroad. W. I. Drummond, of Oklahoma, is the chairman. For detailed information concerning this great farm congress with its combined expositions, address International Farm Congress, Peoria, Illinois.

KANSAS A DAIRY STATE

Developing Economic Conditions Forcing Buyers West and South for Dairy Products

WHEN Secretary J. C. Mohler asked George W. Marble, of Fort Scott, to give an address before the State Board of Agriculture last winter, he suggested that he take for his topic, "Can Kansas Become a Dairy State?" Now Mr. Marble is a newspaper man, but he is also tremendously interested in dairying, not only from a theoretical standpoint but in a practical way. As a business man he realized how dependent all other occupations are upon the prosperity of the people who till the soil and market its products in some form or other. His interest in the fundamental industry of Kansas led him to study most seriously the economic phases of dairying and he has now become a dairy farmer in addition to following his profession as a newspaper man. For this reason he is in a position to speak not merely as a theorist, but as a man who is meeting with the same problems that confront the average dairyman.

In his address before the State Board he said in part:

"The selfish interest I had as a business man in the prosperity of the farmer led me into a thoughtful investigation of the conditions on the farms in our part of the state, with a view to determining from an economic standpoint what branch of farming would be most profitable. This investigation naturally led me into the support of dairying as the most profitable line of agriculture because it is best adapted to our soil and our climate. Many farmers who have made money feeding cattle in years gone by have lost money in that branch of farming in the past few years. The fluctuating market conditions and the uncertain crop conditions have made stock feeding a precarious business. I know of a number of men who prospered at it a few years ago who have abandoned it of late and are now looking to the dairy cow and dairying as the most feasible line of agriculture for the Kansas farmer. The more you go into this matter, the more you investigate its possibilities, the more, I am sure, you will be convinced of the permanency of it and of the money there is to be made in it.

"Dairying is not only best from the standpoint of money-making, but from the standpoint of conserving the soil, and it at the same time tends to so improve the social conditions on the farm as to become a wonderful factor in benefiting the farmer and his family.

"Now a promoter is always expected to have a prospectus setting forth his project, and I have taken the pains to compile some figures based on estimates taken from my own county—Bourbon—as a unit of average Kansas communities.

"Bourbon County has about 2,500 quarter sections of land; it is about the average in size of Kansas counties. I have estimated that, on the average, on 160 acres in Kansas a man can grow the feed for and keep fifty cows. This is a very strong statement. I doubted it at first myself. It is true that the figures I am giving you are based on the maximum possible production under efficient management and the necessary labor. The average farmer could not today take and care for fifty cows on 160 acres, but I am a promoter in presenting these figures, remember, and as such am simply saying what it is possible to work up to. The day will come, in my judgment, when the Kansas farmer will keep fifty cows on 160 acres. The farmer who does that will be able to produce at the present market price \$5,500 worth of milk a year. And if every farmer in a county like Bourbon should do that, the aggregate income of the county would be \$13,750,000 a year—an increase of \$11,000,000 over the present estimated farm production of the county.

"I was interested in the statement made by Judge Lobdell of the Federal Farm Loan Board to the effect that land values must ultimately be based upon land production. That is a fact we do not all recognize. We have land valued at \$100 an acre that will not yield returns upon any such valuation. Then that is not the legitimate value of the land. When you go to borrow money the basis of the loan value must be upon what the land will yield in cash

returns each year. Land is worth what it will yield returns on.

Dairying yields the quickest, the most regular and the largest average cash returns of any line of agriculture, in communities where the soil is fit and the market is available. And it is to this phase of the subject that I have given extended study and research.

"With a view of determining, not what conditions in Kansas are favorable to dairying, but, on the contrary, what conditions obtain in this state that would be an obstacle to that industry, I have visited the principal dairy sections of Illinois and Wisconsin on several occasions. I have studied breeding, cropping, feeding, marketing, and other conditions bearing on the industry, and have come back to Kansas a more enthusiastic advocate of dairying than before. I have found, to my satisfaction, that we can at least grow the dairy crops as abundantly as in the most in-

tenance of a dairy herd of fifty cows on an average Kansas quarter section, I have worked out the following for my prospectus:

"Total revenue from fifty cows at \$110 each, per year, \$5,500; expense for help (two men at \$700 each and \$100 additional for help), \$1,500; corn and feed, \$500; interest, taxes, and insurance, \$1,300; repairs and depreciation, \$400—total expenses \$3,700. Net balance for farmer on 160 acres, \$1,800.

"To this might be added the value on an annual increase of ten cows a year to his herd at \$75 per head, or \$750, giving him a total profit of \$2,550.

"Do not understand that I recommend that you go home and get fifty cows and go to milking them to demonstrate this showing. I have given you a maximum possibility to work up to. It is a long way from where we are now to a realization of these possibilities.

"I used to say three things are neces-



GLORIA BENEDICTINE, GRAND CHAMPION COW AT 1916 NATIONAL DAIRY SHOW HELD IN SPRINGFIELD, MASSACHUSETTS

tensive and the most prosperous dairy sections of Wisconsin or Illinois. We can grow the grasses—bluegrass, white clover, timothy hay, red clover, etc.—almost as abundantly as they can, if not quite so. We can grow corn to the silage stage as abundantly as they. We cannot grow it to maturity as surely as they. It is the common experience in Kansas that the dry weather of late July and August cuts our mature corn yield almost invariably. But to the silage stage we can and do every year grow corn that is the equal of the crop in the center of the corn belt. We grow alfalfa much more abundantly than it can be grown in Illinois or Wisconsin. Alfalfa and corn silage are recognized the world over as the two foundation dairy feeds, and there is no place where they grow as they do in Kansas. We have a distinct advantage in this state over the northern dairy states in the matter of alfalfa. As a matter of fact, they have developed dairying without alfalfa. It is but in recent years that they have begun to grow it extensively, and they get but three cuttings a year in a favorable season, while we get four cuttings and often five.

"Our pasture season is longer than in the northern states, our winters less rigorous and of shorter duration, and our land is cheaper. All these things contribute to an economic advantage for Kansas that it seems to me makes dairying positively our very best bet.

"It is a matter of common observation that in every developed dairy community minimum land values of \$100 an acre are found, while the average value of lands in such communities is probably \$150, with lands closer to markets or to towns running up to \$200 and even \$300 an acre. This is a natural sequence of the development of an industry on the farm which realizes to the farmer such a substantial cash and regular income as the sale of dairy products brings him.

"Taking a possibility of the main-

sary to develop a dairy community, namely, dairy crops, dairy-bred cows, and markets. I have discovered, however, that to these three essentials to successful dairying must be added a fourth, namely, dairy-bred men and women.

"Investigation leads me to say to you, without fear of successful contradiction, that twenty milk cows could be sustained on the waste feed of the average 160-acre farm in Kansas—twenty cows in addition to the stock that is now kept on the farms. Included in this waste of feed I take account of the difference in the value of corn fed as fodder or permitted to rot in the field, unfed, and its value for feed utilized as silage. This is one of the pitiable wastes on Kansas farms. There are others. The savings that might be effected from these wastes would keep twenty milk cows in addition to what stock is now kept.

"Rapidly developing economic conditions are forcing buyers west and south for dairy products. This condition has developed until it is today possible for any Kansas community that has the milk to sell to get the market; in fact, the dairy markets are eagerly looking for supplies. There are four principal markets for dairy products. They are the creamery, the condensery, the cheese factory, and the metropolitan or town retail trade. It is necessary to have a wholesale market. I have found that all these markets buy on a competitive basis. In Wisconsin and Illinois I found the prevailing price paid for milk by all markets in 1915-16 to be about eleven and three-fourths cents per gallon for milk. The products were coming from farms the average value of which per acre was not less than \$150, and the farmers were all prosperous. That farmers in a country where corn and oats and rye could be raised to maturity so much more abundantly than we can raise them to maturity in Kansas were all in the dairy business,

seemed to me to be conclusive proof that we in Kansas ought not to try to depend upon grain crops when the economic conditions with respect to the production of milk are so much more favorable. In the Wisconsin and Illinois dairy districts every farm is a dairy; there is no exception. One silo and one barn are exceptions. They nearly all have two of each. Land is becoming too valuable to be used for pasture in the developed dairy districts. The farmers there are coming to feed silage the year round and to make the silo take the place of the pasture. Many big milk producers in the states named have practically no pasture.

"Robert C. Krueger, the well-known dairy-cow breeder of Burlington, Kansas, said to me the other day, 'The Kansas farmer doesn't want to dairy, but he has to.' This statement emphasized a situation which every thoughtful farmer must sooner or later appreciate. The farms of Kansas are being rapidly worn out. The soil is being depleted by the constant hauling of it to market. It is getting so we cannot produce the grain we used to produce because we have exhausted the soil. It is imperative that something be done to renew our soil. And after all the other advantages of dairying have been stated, it remains to be said that the greatest matter of consideration in this respect is that dairying builds up the farm—makes it more instead of less productive. In the railway stations and public places of Wisconsin I observed a striking bulletin issued by the agricultural college of the University of Wisconsin. It was an illustrated comparison of the three farm markets and showed these startling facts:

"With every ton of grain sold at the elevator the farm loses \$5 to \$6 in fertility; with every ton of grain sold at the stock yards the farm loses \$1 to \$1.20 in fertility, while with every ton of grain sold at the creamery as butterfat the farm loses twenty cents in fertility.

"I have not had time to emphasize the very important consideration of improved social conditions on the dairy farm. Next to chickens, the farm women and the farm boys are most easily interested in cows. This contributing fact, together with the other important fact that a steady and regular and ready cash income always increases the conveniences, stimulates interest in the home and community life, and, in short, enables the farm to compete with the cities and towns for the likings and tastes of the boys and girls. One going into a developed dairy community will be quickly impressed by the wholesome home and community ties that bind the people together and remove much of the drudgery of the farm.

Ayrshire Production Record

The seven-year-old Ayrshire cow, August Lassie, has completed an official yearly record of 19,582 pounds of milk, 831.50 pounds of butterfat, test 4.11 per cent.

August Lassie was born August 8, 1910, and already has three official records to her credit. On February 1, 1915, she completed her first official Advanced Registry record, producing 10,047 pounds of milk, 398.24 pounds butterfat. On March 13, 1916, she finished her second record with 17,784 pounds milk, 720.03 pounds butterfat, test 4.05 per cent, and her third record just completed 19,582 pounds milk, 831.50 pounds butterfat, test 4.25 per cent.

The completion of this last record gives August Lassie a three-year cumulative average record of 15,791 pounds milk, 649.92 pounds butterfat, 4.11 per cent test.

Young people who contemplate attending business college or auto training school this fall or winter will find it to their advantage to write us. KANSAS FARMER has some information that will be of genuine interest to you. Address DESK D, KANSAS FARMER, Topeka, Kan.

Feeds not available or needed for human consumption can be used largely in feeding live stock.

Feed cheap roughages to live stock.

ROASTING EARS FOR WINTER

Enjoy Green Corn Year Round by Canning Generous Supply

WE ARE all enjoying our roasting ears or stewed corn now and wish we might have it the year round. This can be made possible by canning a generous supply. Corn seems to give home canners more trouble than most products, but with care and study it may be canned as easily as any other product grown in the garden. A little experience in selecting the ear and the ability to recognize corn that is just between the milk and the dough stage are important.

Can the same day as picked. Do not remove husks and silks until you are ready to begin canning. Blanch on cob from two to five minutes, then plunge quickly into cold water. Cut the corn from the cob with a thin, sharp knife. Pack corn at once in sterilized jars to within one and one-half inches of top, leaving room for expansion in processing. Add to each quart one level teaspoonful of salt, three to five teaspoonfuls of syrup made by using equal parts of sugar and water, and enough hot water to finish filling the jar to one and one-half inches of the top. Place rubber and top in position, and seal partially but not tightly. If using Mason jars, seal as tightly as can be done with the thumb and little finger. If using jars which have wire bail clamps, place only the top bail in position, as shown in cut. If this is too tight, either loosen it or use string or some other means to hold the lid on during the sterilization period, for when the products in the tight-lid jars of this kind get hot and steam is formed inside, some of this steam must have a way to escape. Sterilize pints three hours; quarts three and one-half hours, if using hot-water bath outfit. Sterilize seventy-five minutes if steam pressure under ten to fifteen pounds of steam is used. For two-quart jars add one-fourth more time. Remove jars and tighten covers as soon as it is safe to open the canning outfit.

The best results are obtained when one person cuts the corn from the cob and one person fills the jars. If one

person is working alone, sufficient corn to fill one jar should be cut off at one time, packed in the jar, and put into the canner or hot water at once. Water-logged or soaked corn indicates slow and inefficient packing. Corn that has reached the dough stage before being packed will

have a cheesy appearance after canning. Corn should never be allowed to remain in the cold-dip water, and large quantities should not be dipped at one time unless sufficient help is available to handle the product quickly.

To can sweet corn on the cob, follow

the same directions, but pack whole ears in jars instead of the cut-off corn.

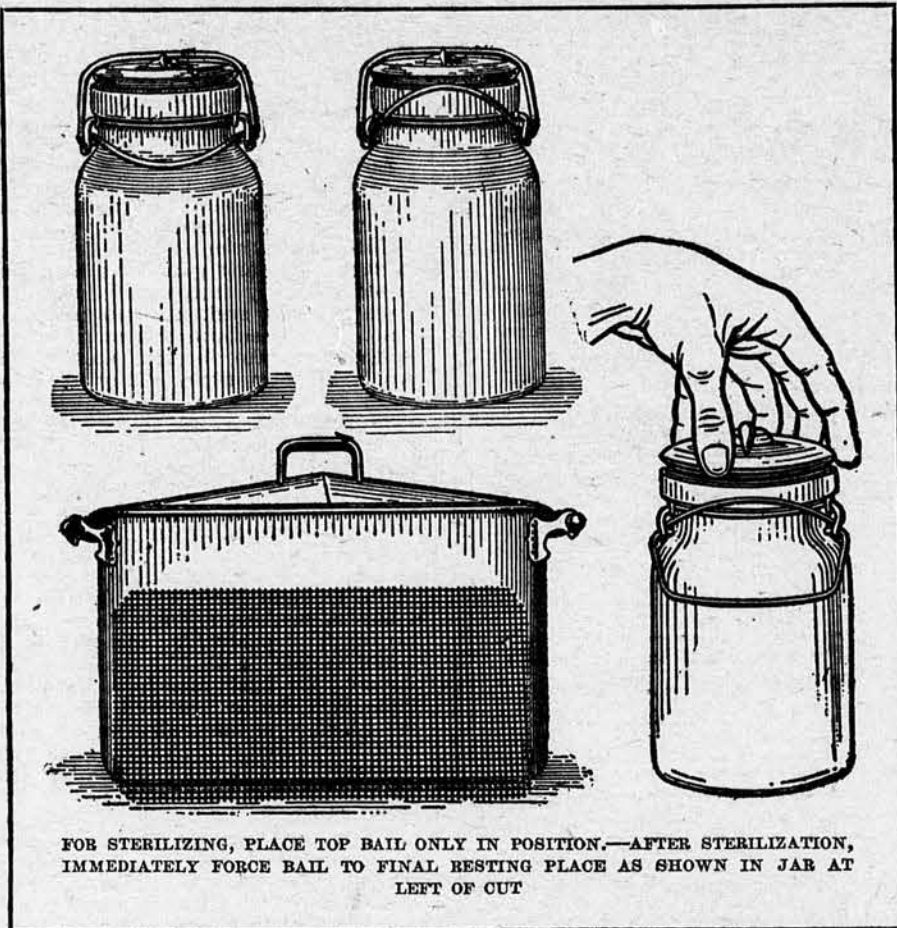
Can Fruit Without Sugar

No surplus fruit should go uncanned this season because of the high price of sugar. While the addition of sugar at canning time is an improvement, the sugar can be added when the fruit is opened for use. When put up without sugar most of the fruits do not keep their natural flavor, texture, and color as well as when sugar is used. However, such fruit is very much better than no fruit, and at a time such as the present crisis all possible should be saved for future use.

Following is the United States Department of Agriculture's method of canning fruit without sugar:

Can fruit the same day it is picked. Cull, stem, or seed, and clean it by placing in a strainer and pouring water over it until it is clean. Pack thoroughly in glass jars or tin cans until they are full. Use the handle of a tablespoon, wooden ladle, or table knife for packing. Pour boiling water over the fruit, place rubbers and caps in position, partially seal if using glass jars, seal completely if using tin cans. Place the jars or cans in a sterilizing vat such as a wash boiler with a false bottom, or other vessel improvised for the purpose. If using a hot water bath outfit, process for thirty minutes, counting time after the water has reached the boiling point; the water must cover the highest jar in the container. After sterilizing, remove jars or cans, seal glass jars, and wrap in paper to prevent bleaching. Store in a dry, cool place.

If canning in tin cans it will improve the product to plunge the cans quickly into cold water immediately after sterilizing. When using a steam pressure canner instead of the hot water bath, sterilize for ten minutes with five pounds of steam pressure. Never allow the pressure to go over ten pounds.



Silo Needed on Every Farm

WE DO not begin to have enough silos in Kansas. It is a generally accepted fact that live stock farming is the most dependable type of farming to follow. It involves considerably less risk than straight grain farming providing an abundant feed supply is assured. Handling live stock is a risky proposition, however, if the feed supply depends entirely on the vagaries of the season. In Western Kansas at least there will always be years when conditions will not favor the growing of large quantities of feed.

Even in the poor feed years the silo is a wonderful conserver of feed value. Many a man has been able to hold the stock and keep on selling cream by having a silo, while his neighbors were sacrificing their animals for lack of feed. In the West where the poor feed years are sure to come occasionally there will also be years in which big feed crops are just as sure to come. By planning to store in silos the surplus grown in these big years, there need be no sacrificing of stock in the poor years. This idea of tiding over the poor years with a reserve food supply stored in the good years is no new principle. Joseph, the food dictator of Egypt, used this method of equalizing the food supply. The silo makes it possible to follow this plan in stretching the big feed years over the poor feed years. In no other way can a surplus of rough feed be kept and used with profit a year or two after it is grown. Without the silo the surplus of the good feed years is lost.

Plan for some kind of a silo this year if you have live stock of any kind to feed. There are silos to be had at a cost that will fit every pocketbook, ranging from the mere pit to the most expensive types. The essential features of a well designed silo can be summed up briefly as follows:

The walls should be practically airtight.

The inner surfaces of the walls should be smooth and perpendicular.

The inner surfaces of the walls should be free from corners. Round silos are more efficient and economical than other types.

The walls should be sufficiently non-conducting to prevent excessive freezing—especially so when the silage is to be fed during cold weather.

The walls would be sufficiently firm or sufficiently well anchored to prevent cracking due to settling or racking due to wind.

The doors should be so designed that a minimum amount of silage has to be removed before they can be opened.

A good ladder should be provided with steps from fifteen inches to eighteen inches apart and at least three and one-half inches away from the silo or walls of the chute.

The foundation should be heavy, well made, and reach below the frost line.

A good roof makes the silo more durable, adds greatly to its appearance, and if tight assists materially in keeping the silage from freezing.

Silos which have the above features will be found convenient, cause little trouble, and when properly filled will keep the silage in perfect condition.

How to Use Sweet Clover

Sweet clover may be utilized for feeding purposes, as pasturage, hay, or silage. With the possible exception of alfalfa on fertile soil, sweet clover, when properly handled, will furnish as much nutritious pasturage from early spring until late fall as any other legume. It seldom causes bloat.

Stock may refuse to eat sweet clover

at first, but this distaste can be overcome by keeping them on a field of young plants for a few days.

As cattle crave dry roughage when pasturing on sweet clover, they should have access to it. Straw answers this purpose very well.

An acre of sweet clover ordinarily will support twenty to thirty shoats.

On account of the succulent growth, it is often difficult, in humid climates, to cure the first crop of the second season into a good quality of hay.

Sweet clover should never be permitted to show flower buds before it is cut for hay. It is very important that the first crop of the second season be cut so high that a new growth will develop.

When the plants have made a growth of thirty-six to forty inches it may be necessary to leave the stubble ten to twelve inches high.

In cutting the first crop of the second season it is a good plan to have extension shoe soles made for the mower, so that a high stubble may be left. In some sections of the country sweet clover as a silage plant is gaining in favor rapidly.

This crop has given excellent results as a feed for cattle and sheep. Experiments show that it compares favorably with alfalfa.

Sweet clover has proved to be a profitable soil-improving crop. The large, deep roots add much humus to the soil and improve the aeration and drainage. As a rule, the yield of crops following sweet clover is increased materially.

Being a biennial, this crop lends itself readily to short rotations.

Sweet clover is a valuable honey plant, in that in all sections of the country it secretes an abundance of nectar.

Farmers' Bulletin No. 820 just published by the U. S. Department of Agriculture discusses in full the utilization of sweet clover. A discussion of the growing of the crop may be found in Farmers' Bulletin 797.

STACK the wheat. It is sure to rain some time and it may come in a deluge. Remember the fall of 1915. Wheat worth \$2.40 a bushel should not be allowed to depreciate in value by long exposure in the shock.

Cultivate the corn and kafir all time will permit. Cut out the weeds and conserve the moisture. These crops cannot compete with weeds and yield profitable returns.

Plant additional feed crops for fall use.

Save the live stock, especially the young stuff and the females.

A. A. Roman

Kansas Farmer Dairy Club

Dairy Club Achievements Please Bankers

THE achievements of the members of the Kansas Farmer Dairy Club are a great encouragement to those who have co-operated in making the work possible. A Leavenworth County boy who has just closed his year's work writes that he will not enroll for the second year's work, but says: "I haven't quit the milk business by any means, as I am going to get five more good Holsteins." The father of another boy told us recently a number of good cows had been purchased by men in his neighborhood as a result of their watching and careful record work done by his boy. This member of the club purchased a high grade cow for \$140 and made a record of over five hundred pounds of butterfat in the year. He made a profit of \$103.83 over the cost of feed in eleven months. By selling the calf he was able to easily pay his note before the end of the year.

The bankers who supplied the money to these boys and girls have been surprised in many instances to have the notes paid in such a short period of time. Such results are most gratifying to the men who financed these young people in their work. They can take much satisfaction in feeling that they have furnished a real opportunity to these boys and girls who have for the past year been milking cows and keeping records of the milk produced and all feed consumed, under the close supervision of KANSAS FARMER. We feel that these banks are entitled to special mention as constituting a roll of honor.

The Citizens Bank of Abilene helped a boy to purchase a grade Holstein cow for which he paid \$100. He thought he would be doing well if he could pay half his note the first year from the profit made over the cost of feed, but at the end of the year his profits amounted to \$80.05, and he could easily have paid the entire debt if the cow had not lost her calf by abortion and thus got a bad start. As it is, he figures that an investment that pays 80 per cent interest is a pretty good one.

The Abilene National Bank loaned \$125 to a girl with which to buy a Holstein cow. The Rawlins County State Bank at Atwood furnished money to a fourteen-year-old girl for the purchase of a Red Polled cow, allowing her two years to pay the note, and were surprised when the principal with ten per cent interest was paid in a little less than nine months with the profits made from selling cream and the money received for the calf. They have offered to advance her money for the purchase of another cow whenever she wishes it.

The Berryton State Bank loaned money to a boy who bought a pure-bred Jersey and after ten months wrote us that he had only fifty-one cents still to pay.

The De Soto State Bank has financed two young people, and the State Bank of Douglass one boy. J. A. Middlekauff, cashier of this bank, writes: "This was a very satisfactory arrangement for the bank; the paper was taken up promptly and the security at all times was in good condition. I shall be glad to aid another boy or girl to do the same thing."

While the State Savings Bank of Leavenworth has made a loan to only one boy up to the present time, this boy is a natural born leader and is looking up other members for the club. He has also organized a company of Farm Boy Cavaliers in his community.

Otto Wulfekuhler, president of the Wulfekuhler State Bank of Leavenworth, has always taken a great interest in enterprises of this kind, and last year had the banner club in the state, consisting of seven members. One of these has enrolled for this year's work also and one new member has already enrolled with this bank.

The Midland National Bank of Newton assisted a boy to buy a pure-bred Holstein cow which made an exceptionally good record. The calf sold for \$150, and the milk produced in seven months and twenty days sold for \$269.90, leaving a balance, after paying for the cow, \$12 interest on the note, and for all feed consumed, of \$15.59, with four and one-third months of the year still to come.

The First National Bank at Oakley loaned \$300 to a sixteen-year-old boy for the purchase of another pure-bred Holstein cow. This boy paid for his cow in a few days over seven months. He sold his calf for \$150, and to this end the money received from the sale of milk added money made by trapping skunks and selling their hides.

The Oswego State Bank, of which J. W. Marley is cashier, furnished money to a fourteen-year-old girl for the purchase of a Jersey cow, and she now has a whole dairy herd—a cow, yearling heifer, and heifer calf. A boy of the same age borrowed \$100 from the Security State Bank of Ottawa and bought a grade Jersey cow. In eight months he has made a profit of a little more than \$88.

A boy to whom the Citizens Bank of Scott City loaned money last summer finished paying for his \$130 Holstein cow in nine months from the profit made from the sale of milk above the cost of feed. He has borrowed money to buy a Jersey cow and is planning to get a Guernsey also. He still has his grade Holstein calf.

C. R. Hoyt of the Thayer State Bank made loans to two boys last year, one of whom paid for his Jersey cow in six and one-half months in addition to paying for all feed used. This was done entirely from the money made by the sale of the cow's products and from the sale of the calf. The boy has enrolled in the advanced class for another year, and the bank is also helping two new boys this year.

The boy financed by the Bank of Topeka in ten months paid \$125 for his cow, purchased all the feed consumed in that time, and had a balance of \$3.85 to his credit in the bank. He wants to get a pure-bred cow for his work this year and will sell his grade Holstein to a new club member.

The Colony State Bank, the Fort Scott State Bank, the State Bank of Kechi, the State Bank of Leon, the First National Bank of Norton, the Security State Bank, the State Bank of Parsons, the Peabody State Bank, the First Na-



BUYING A DE LAVAL SEPARATOR NOW

Is real thrift and genuine economy

"THRIFT" means saving wisely. "Economy" means spending wisely. There is no economy in going without money-saving and labor-saving equipment.

It is poor economy to try to do without a De Laval Cream Separator—a machine which would not only save you a lot of time-wasting work, but would add from 15 to 25 per cent to your cream crop by putting a stop to your butter-fat losses.

This country is at war. The nation cannot afford, and you as an individual cannot afford, to allow the present enormous waste of one of our most valuable foods—butter-fat—to continue an unnecessary day.

See the local De Laval agent today. Get him to explain to you how the De Laval saves butterfat that is lost by gravity skimming or the use of an inferior or half-worn-out separator. If you do not know the De Laval agent, write to the nearest De Laval office for new catalog or any desired information.

Every New De Laval is equipped with a Bell Speed-Indicator

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50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

Hail

ARE YOUR CROPS PROTECTED?

You know the deadly work of hail. Within a few hours all your crops can be destroyed. Your income is gone. Your labor is wasted.

What a sense of security you have when your crops are protected against hail in a safe and conservative company. Don't risk another day, but insure now in a company whose officers are bonded to the State of Kansas for \$50,000.

THIS IS THE COMPANY

that first put the insurance in force from the moment the application was signed and the premium paid. Always has adjusted all losses, no matter how small. We ask for your application on our past record. Don't wait for the storm, but write us for full particulars or see our agent before you insure your grain.

THE GRAIN GROWERS HAIL INSURANCE COMPANY

Elmer F. Bagley, Secretary, Topeka, Kansas.

Will Your Subscription Expire In July?

We have several thousand subscriptions expiring in July. It would be a saving of much time to us and avoid missing copies by the subscriber if the renewal could reach us before the expiration. The best way to do is to send in \$2 when you renew and have your subscription paid three years in advance.

READ KANSAS FARMER'S CLASSIFIED
ADVERTISING PAGE FOR READY BARGAINS

Schedule of Feed Prices for New Club

IN calculating the cost of feed all members of the second Kansas Farmer Dairy Club are to use the figures here given. If any feeds are used that are not found in this list, write to KANSAS FARMER for the price to use.

GRAINS AND CONCENTRATES		ROUGHAGES	
	Per cwt.		Per ton
Corn chop.....	\$3.25	Alfalfa hay	\$10.00
Kafir meal.....	3.25	Clover.....	10.00
Milo meal.....	3.25	Hay from sorghums	5.00
Feterita meal.....	3.25	Sudan hay	7.00
Corn and cob meal	2.65	Other hay	7.00
Head meal of grain sorghums.	2.50	All stovers	2.50
Oats.....	2.15	Silage.....	4.00
Ground oats.....	2.25	Straw.....	1.00
Wheat bran.....	1.85	Green fodder	3.00
Shorts.....	2.50	Green alfalfa	3.50
Cottonseed meal.....	2.90	Roots.....	4.00
Cold pressed cake.....	2.60		Per month
Linseed oil meal.....	2.90	Pasture.....	\$ 1.00
Alfalfa meal.....	1.60		
Molasses-alfalfa feed	2.25		
Grain-molasses-alfalfa-feed ...	2.80		

tional Bank of Scott City, and the Sedgwick State Bank, have each supplied one boy or girl with the necessary funds to buy a cow. The Halstead State Bank made a loan to one boy last year and to another this year.

Five members of last year's club have enrolled for another year's record work up to the present time, and doubtless quite a number of others will do so as soon as their year's records are finished.

In addition to the banks previously mentioned as co-operating in this work for the ensuing year the following have so far reported from one to three enrollments: The Basehor State Bank, the Emmett State Bank, the State Bank of Meriden, the State Bank of Navarre, the First National Bank of Overbrook, the Farmers and Merchants Bank of Tonganoxie, the State Bank of Walton, and the Peoples Home State Bank of Chanute. Will Wayman, president of the Emporia State Bank, is loaning money to four boys and girls, charging them only four per cent interest. F. C. Newman of the Citizens National Bank at Emporia has provided forty members with cows and promises to send us several more names. This is the club for which three carloads of Holstein cows and heifers were shipped in from Ohio as described in our issue of June 23.

A number of other bankers of the state are interested in this work and are looking for dependable boys and girls to take it up. The Dairy Club work is certainly bringing about increased interest in dairying in many localities and is training the boys and girls in business methods. In the beginning it was somewhat of an experiment, but we feel that the results this year have proven its value.

Feed Prices for First Club

Feed prices have greatly increased since the feed schedule being used by members of the first club was adopted last fall. Since a number of the members are not through with their records, we have decided to make no change in the feed prices. It would not be fair to require those members who started late to charge their feed at the present high prices for the remainder of the year when so many of the members finished their records early and used the lower prices. We do not want any of our club members to fool themselves, however, and get to thinking they have done something which they have not really accomplished. In finishing your records and using the old schedule of feed prices, bear in mind that these figures are to be used comparatively. It would be fine practice for each individual member to figure on the basis of present feed prices just what it is costing to produce milk.

Wants to Join Club

I have been thinking I would like to join the Kansas Farmer Dairy Club and get a cow of my own. C. T. Neihart, president of the First National Bank at Lyndon, has promised to loan me the money to buy my cow. I think I will get a good Ayrshire cow.

We have taken KANSAS FARMER for a long time and I can hardly wait until it comes to see how the Dairy Club is getting along. I always like to read about it. I hope to be a Dairy Club member soon. —HAZEL SHRIVER, Osage County.

Pays Out in Nine Months

The only boy that took hold of the Dairy Club project with us—Lester Kincaid, who bought a Holstein cow for \$300—has paid out in full on same and has been making a nice record. I surely would like to see more of the boys take hold of the business, and would willingly help them.

You may count us in for another year, and we will try to get more boys into the game.—V. JAGGAR, Cashier First National Bank, Oakley, Kansas.

This letter was written only nine months after Lester's enrollment in the Dairy Club. He paid ten per cent interest on his note.

Need for Production Records

Dairymen cannot afford to feed high-priced feed to low-producing cows. At no time during the last ten years has it been more necessary to weigh and test the milk from dairy cows than at the present time. This was the burden of the talk made at the auxiliary meeting of the Kansas State Dairy Association held in Lawrence, June 30, by Prof. J. B. Fitch, in discussing the problem confronting the man milking cows. A great

many complaints are being made that there is little or no money in milking cows with feeds as high in price as they are now. Most of these complaints can be traced to keeping too many of the wrong kind of cows. A few unprofitable cows can easily make the whole herd unprofitable under such conditions. By keeping a check on the production of each cow, the dairyman can tell which ones are earning the right to be well fed.

It is also a great help in feeding cows to have individual records, since cows should be fed in proportion to their capacity. By taking a composite sample of the milk for two or three days some time during the month and testing it by the Babcock test, which gives the per cent of butterfat, it is possible to calculate from the total weight of milk produced by the cow the amount of fat produced for the month.

In feeding a cow in proportion to her capacity for production, Professor Fitch suggested that the milk sheet should be watched closely and the cow, if of the Jersey or Guernsey breed, fed one pound of a good grain mixture to each three pounds of milk produced, and if an Ayrshire or Holstein, a pound of the grain mixture to each four pounds of milk produced. Of course it is always important that milk cows be fed all the good hay and silage they will eat. Many of the low producers will produce milk to their full capacity on roughage alone provided it is of good quality and properly balanced. A well balanced grain mixture to go with alfalfa and silage is four pounds of corn chop, two pounds of bran, and a pound of linseed oil meal, or cottonseed meal. If oats are available, it will cheapen the ration, since oats are now cheaper than corn, to use two pounds of oats and two pounds of corn instead of the four pounds of corn. A cow that is producing more than fifteen to twenty pounds of milk a day should usually be fed in the way indicated.

In case no records are kept, the low-producing cows that would produce to their fullest capacity on hay and silage alone are too often fed the same as the

animal of large capacity. When a whole herd is fed in this way the high-producing cows cannot produce up to their full capacity and the poor cows store the feed as body fat. When cows are on pasture it is frequently necessary to feed grain during the dry part of the summer and fall in order to keep up their milk flow.

If cows are allowed to become thin on account of grain being so high in price, they are likely to cut down their production during the next lactation period. J. W. Bigger, of Topeka, who was present at this meeting, pointed out that in feeding cows according to their production it might easily be possible to feed the cow approaching the end of her lactation period too small an amount. He is a firm believer in feeding good cows well during the dry period. It is his experience that there is little danger in feeding a good cow too much at this time. The fat she puts on her back during this period comes back in the pail when she starts milking again.

This period of high-priced feed may have one good effect on the dairy business in that it will act as an incentive to keeping records so that the low producers can be weeded out. In sections where whole milk is sold there is seldom as much interest as there should be in the forming of cow test associations. Men selling whole milk seem to have the idea that all a cow test association is for is to help increase butterfat production. The facts are, however, that a knowledge of the amount of milk a cow is giving is worth more than a knowledge of her butterfat test. It is in the sections where whole milk is sold that we hear most complaint regarding the profits from the dairy business under present conditions. This would seem to indicate that there are entirely too many cows being milked in these sections that should be discarded. The cow test association is a cheap way of finding out what the cows are doing.

Eighth Dairy Cattle Congress

The important part which the dairy

industry plays in the nation's welfare will be demonstrated more forcefully than ever before at the eighth annual Dairy Cattle Congress to be held October 1 to 7 inclusive at Waterloo, Iowa. A large number of new features, demonstrations and exhibits have been planned to show that it is a patriotic duty for every dairyman and farmer to produce the largest amount of dairy products in the most economical manner.

The exhibition space for machinery, dairy supplies and equipment is being reserved by manufacturers from every section of the country. Those who are interested in equipping their homes and farms in the most up to date manner will find everything they want in the exhibition halls or on the grounds.

The Dairy Cattle Congress is for all dairymen, creamerymen and farmers. It is for those who are interested in better dairy conditions not only in the Mississippi Valley but throughout the nation. Its prize money is open to all breeders in the world and the man who enters cattle will be pleased not only with the treatment accorded him, but also with the success both in the ring and in the stable.

Don't Sell Breeding Animals

Don't sell your breeding animals unless you can replace them immediately with better ones. Don't let the temptation of high prices now being offered for live stock or undue fear of the prices asked for many popular feeds mislead you into selling a cow or sow that will drop the golden calf or litter. Such near-sighted profit-taking or lack of courage, if widespread, would strike at the foundation of the country's live stock industry and cripple it for years to come. As there is a shortage of meat animals throughout the world, we can not hope to import new breeding stock to replace those we foolishly have killed off. Our own breeding animals, therefore, must be regarded as the seed essential to the domestic meat supply of the nation.



Raise Any Crop on Any Size Farm Now Without Horses

YOU can now raise any crop with Avery Motor Power—corn, cotton, potatoes—any crop planted in rows as well as grain crops. Everyone knows that you can raise a grain crop with a Tractor. But how to use motor power successfully for raising a crop planted in rows has been an unsolved problem. Now you can do it. Plow your ground and harrow it with an Avery Tractor—then plant and cultivate your crop with an Avery Motor Planter-Cultivator. See all this work done by Averys at the Fremont, Neb., Demonstration, Aug. 6 to 10.

Avery Motor Planter-Cultivator a Wonder

Plants or cultivates two rows at once. Single front guiding wheel runs between rows—double rear driving wheels outside of rows. Turns short either way at ends to go back on next two rows. Costs less to operate than horses or mules. Less work to take care of. Put through a year's test before being placed on the market. A wonderful success.

Motorize Your Farm the Avery Way

Here's the successful Avery way to motorize any size farm for raising any crop. First, select from the six sizes of Avery Tractors the size that exactly fits your size farm. No farm is too small or too large. The 5-10 H. P. one and two plow Avery Tractor fits the smallest farm and the 40-80 H. P. eight and ten plow Tractor fits the largest farm—four other sizes for medium size farms—8-16, 12-25, 18-36 and 25-50 H. P.

Then, get one or more Avery Motor Planter-Cultivators, as you may need, and you have the most successful combination of motor power built for raising any crop on any size farm.

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The five larger sizes of Avery Tractors are the only make built in five sizes all of one design. Special double carburetor and gasifier make them best kerosene burners. Patented sliding frame makes possible least gears and shafting in transmission. Only tractors with renewable inner cylinder walls.

The 5-10 H. P. Avery Tractor is designed for use on small farms and for light work on larger farms. Intended for pulling about three horse load. Smallest and lowest priced tractor built.

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Tells you facts about motor farming you should know. Clear illustrations of Avery construction. Write now for free copy of Avery 1917 Catalog and name of nearest Avery dealer. Address

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rough or too depleted for cultivation, or permanent pastures which have become thin and weedy, may be improved greatly by drilling in after disking a few pounds of sweet clover seed per acre. Not only will the sweet clover add considerably to the quality and quantity of the pasturage, but the growth of the grasses will be improved by the addition of large quantities of humus and nitrogen to the soil.

Sweet clover has proved to be an excellent pasturage crop on many of the best farms in the North Central States. In this part of the country it is often seeded alone and pastured from the middle or the latter part of June until frost, or it may be sown with grain and pastured after harvest.

Saving Waste Patriotic Duty

Stopping waste will at once place this country on a basis of war-time economy. That act alone would go far towards paying all war costs without interfering in the least with customary expenditures of the people. It is the logical thing to do and if done business will go on as usual.

Production is important. It is an urgent problem, and yet it is no more urgent than the problem of conserving that production in a way that will give to the people the fullest measure of use. Who will say that fire loss is necessary? Who will say that it cannot be prevented? When products on the farm are needlessly destroyed by fire through neglect to construct fireproof buildings, all expenditure in both time and money towards greater production has been destroyed. Stopping this stupendous fire waste is a matter toward which efforts should now be directed. Although fire is always calamitous, in war times it is even more so, for the losses sustained can be ill-borne and the burdens thereby developed are added to the country's war responsibilities.

Barns, elevators, warehouses, canning factories, cereal mills and other places where the raw products are kept until turned into food for ourselves and our allies should be so constructed as to insure the greatest degrees of safety possible. It is just as patriotic to exercise care in the sound construction of these buildings as it is to make our acres produce greater crops.

Waste may be eliminated in other ways. The man who owns eighty acres of land and permits twenty of it to remain idle because of poor drainage is wasting. Drainage would very soon put that twenty acres in crop-producing condition and so increase the production of soil that the cost of the drainage system would soon be paid for by the products of the soil, ultimately placing the twenty acres in a condition to add to the world's supply of food each season. Better drainage will lessen land waste and is therefore a patriotic duty.

Still another way of eliminating waste is by getting a greater amount of food value out of the soil for live stock. The building of a silo on every farm will make one acre of corn feed twice as many cattle and keep them in better condition. The saving from this source alone would amount to millions of dollars annually. If you have no silo, build one; if you have one, build two.

The old-time fence strip is also a source of waste that should be taken into account now when every square foot should be devoted to crop production. Fence strips that have been neglected and allowed to grow weeds and patches that have been overgrown with brush should be cultivated this year. Good fences, and fences on which the expensive repairs are eliminated by good construction at the start, will add their share towards greater crop production.

It is the patriotic duty of every American, farmer or townsman, to take this matter straight home to himself and see where he can stop waste on his property. Putting time and money into buildings that are easily destroyed by fire, or buildings that soon decay, buildings that fail to properly protect grain, is a source of waste which undoubtedly can be stopped by better construction; and better construction is a war-time economy which will add to instead of hinder business.

Bees Are Easily Moved

Farmers who have bees to move will find the following suggestions from Bulletin 138, Missouri College of Agriculture, helpful:

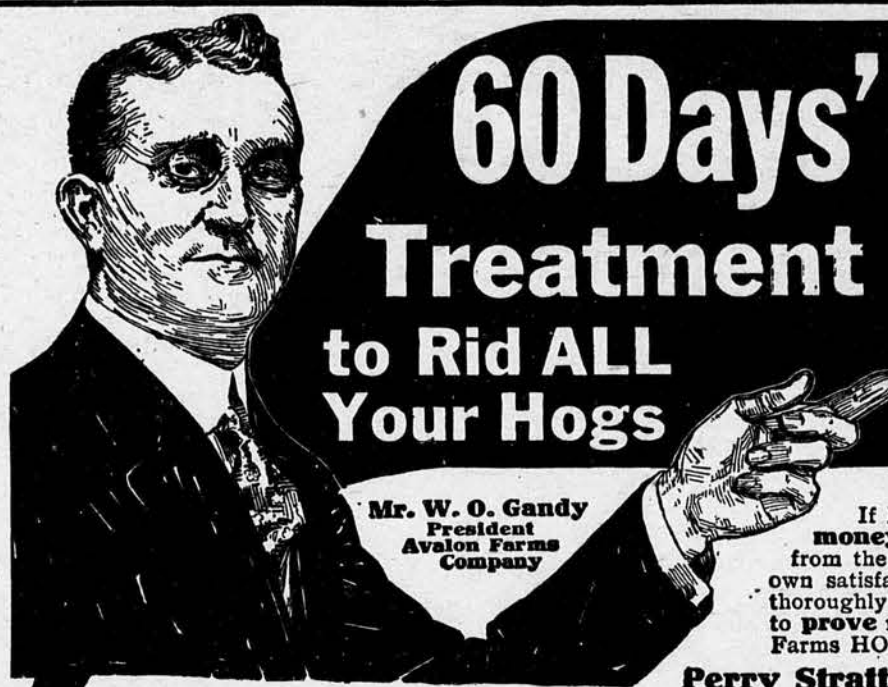
In moving bees, close the entrance with screen wire before day, when all

bees will be inside. Take a strip of screen wire three inches wide and two inches longer than the bee entrance, bend over the ends so that it is exactly the length of the entrance, then bend the strip lengthwise into a V-shape, and push it tightly into the entrance. This closes the entrance and serves for ventilation. Be sure that there are no other openings left. Run a baled hay wire lengthwise around the hive, drawing and twisting it up gently. Run another crosswise in the same way. Have a wagon close at hand with plenty of hay, straw, or small brush to relieve the jar. Set the hives crossways, far enough apart to crowd a partly filled sack of straw, leaves or brush between them and the sides of the wagon bed. When all

is carefully done, hitch the team to the wagon and drive to where the bees are to be placed. Unhitch before doing anything else. Then set all the hives in permanent place as nearly a rod apart as convenient. Take off the baled hay wires. Place a wisp of loose hay, straw, grass or fine brush close up in front of the entrance and open the entrance about two inches at first. The trash in front of the entrance causes every bee to take notice and mark the new location. If the entrance were thrown wide open, the bees would come out too fast and soon find themselves lost in mid-air, and if not too far removed from the original place, would go back and find themselves homeless. Move bees in the cool of the day. Either a single queen

or a carload of stands can be transported with ease and safety.

Late summer gardens may be made to supply the table with fresh vegetables. Turnips and rutabagas should be sown in July after a rain. The ground should be free from weeds. Three to four pounds of seed to the acre is sufficient. These plants require no cultivation. These do especially well on ground which has been carefully prepared after digging potatoes. An application of well rotted manure on this ground will give good returns. String beans do well if the weather is not excessively hot. They should not be planted later than August 15.



60 Days' FREE Treatment to Rid ALL Your Hogs of Worms

Mr. W. O. Gandy
President
Avalon Farms Company

If I don't make your hogs make **you more money**—produce more pounds of pork for you from the same amount of feed and prove it to your own satisfaction—I don't want your money! I am thoroughly in earnest in this offer. I am making it to **prove** my faith in the remarkable value of Avalon Farms HOG-TONE. I want you to accept it.

Perry Stratton, the Berkshire Breeder, Accepted This Offer! So Should You!

did not seem to be doing well and began by feeding them Hog-Tone. In about five weeks' time you would not have believed they were the same hogs! They grew with the other hogs and when feeding time comes they are the biggest scrappers in the bunch."

Mr. Stratton, whose Berkshire farm near Momence, Ill., is famous throughout the land, writes: "Avalon Farms Hog-Tone, being in the liquid form, is so easily fed in the swill that you obtain the desired results without difficulty. I took a couple of shoats that

Accept This Offer! Think What It Means to You!

The price of hogs is going higher every day—and is bound to go higher from now on. There is a **serious** hog-shortage. Especially a shortage of high-grade porkers—**hogs absolutely free from worms—big hogs with sound, clean flesh!** "Nearly every hog is infested with worms," declares the U. S. Dept. of Agriculture. The malignant Thorn Head Worms—Stomach Worms—Liver Worms—Lung and Bronchial

Worms weaken the hogs—affect every sow's litter—make millions of hogs easy victims of cholera, scours, thumps, rheumatism, enteritis, gastritis—rob surviving hogs of nourishment their food should bring, cut down their weight and quality at marketing time. Use HOG-TONE—and rid your hogs of **all** worms—bring them all to market in high-grade, high-weight, worm-free condition.

AVALON FARMS HOG-TONE

The Liquid Worm Killer and Hog Conditioner FOR ALL YOUR HOGS—SEND NO MONEY!

I will ship you one big \$1.00 bottle of Hog-Tone for each eight hogs in your herd—the day the coupon below, filled in, reaches this office. That will be sufficient to treat all your hogs 60 days or more, according to size. This will mean just 12½ cents per hog for all the treatment, and that treatment is guaranteed by me to free your hogs of all worms—to enable them to put on more weight from the same feed—to fill them with strength and vitality—to resist disease attacks. This is the same offer that these men named below grasped—and were glad they did.

"Sometime ago I received your AVALON FARMS HOG-TONE and used it on one pig that I separated from rest of the bunch which was a good average one. Sold the bunch at seven months old which averaged 226½. The one that I used your Hog-Tone on weighed 260 lbs. This hog was sold 38 days before the bunch."

EMERA H. MILBURN, Lapel, Indiana
"Find enclosed check for the Hog-Tone you sent me. It sure did the work on my pigs. The second day after the first dose the pigs began to pass worms—round ones. I tried out two hogs and they got awful fat. I am well satisfied with Hog-Tone." J. T. LEECH, Pampa, Texas

I Don't Want You to Send Me a Cent!

Simply tell me how many head of hogs you have—write down your name and address—and mail to me. I will immediately ship you enough Avalon Farms Hog-Tone to treat your hogs for 60 days! You simply pay transportation charges. Treat your hogs according to directions. If at the end of the treatment you are not completely satisfied—simply return the labels to me and you don't owe me a cent.

Avalon Farms Co.

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FREE
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Name _____
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Name and address of my Dealer _____

"I have purchased six bottles of Hog-Tone and am feeding it to my hogs. Have not been feeding it very long, but am sure surprised at the results. I can see a great change in their appearance and the way they eat. I never had Fall pigs do so well. HOG-TONE will do all you claim for it." (Signed) GEO. BRASFIELD, Swayzee, Ind.
Avalon Farms Hog-Tone is a highly concentrated liquid medicine for hogs only. It contains highly important medical ingredients which are liquids and which cannot be combined in Medicated Salts, Stock Foods or Condition Powders of any kind. Avalon Farms Hog-Tone is safe. It is easily mixed with any slops, with drinking water or dampened feed. It is only given every third day for the first six weeks and after that only once a week. 100 per cent strong.
It cleans out every kind of worms that infest hogs. By doing so, it gives protection to your hogs from easily contracting Cholera, Rheumatism, Scours, Thumps, caused by worms and indigestion, Enteritis, Indigestion and other diseases that destroy literally millions of hogs. A simply wonderful tonic and conditioner—gives hogs voracious appetites, aids digestion, helps them thrive, grow and put on fast increases of flesh. Splendid for pregnant sows—the litter is stronger and thrifter, too.

W. O. Gandy, President, Avalon Farms Co., 694 Rand McNally Bldg., Chicago, Ill.

There is no charge for shipping. Ship me immediately enough AVALON FARMS HOG-TONE to treat them for 60 days. I am to pay nothing now except transportation charges. I agree to report results to you at end of 60 days and pay for the Hog-Tone as then due if it has done all that you claim. If it does not, I will return the labels to you and you agree to cancel the charge.

SEND NO MONEY—TAKE NO RISK

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make the house.
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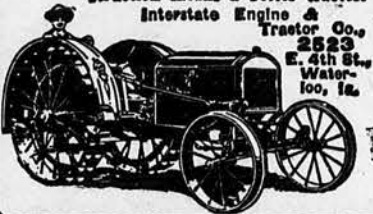
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EARLY PLOWING Makes Bigger Crops

PLOW MAN \$1255
1330 ALL-STAR TRACTOR
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Records prove early plowing produces larger yield. Hard ground or hot weather often prevents early plowing with horses. But a real tractor like Plow Man or Plow Boy does the work regardless of such conditions. It solves your labor problem—reduces farming cost per acre—permits working more acres—furnishes ample power for all farm purposes. Write today for Power Farming data and learn why All-Standard construction means a better tractor.



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HOG SURVEY IN KANSAS

THE Kansas State Board of Agriculture is conducting an exhaustive investigation of the hog industry of Kansas, and as a part of that investigation they are mailing out thousands of blanks to hog raisers throughout the Sunflower State, also to packers and live stock commission firms in all the great markets of the middle west. Information and data will be drawn from every available source, and will be carefully analyzed, compiled, and published in the form of a report probably of several hundred pages, suitably illustrated.

It is the purpose of this investigation to cover the subject from every angle, and to secure complete and thorough information on every phase. It is to be hoped that much new and previously unappreciated information will be brought to light, and that the report will be of such value as to have a powerful and far-reaching effect for the good of the industry.

As a reward for filling out the blanks, hog raisers will be furnished, free, with a copy of the report. It is to the interest of every Kansas hog man who does not receive a blank for filling out, to write for one to J. C. Mohler, Secretary of the State Board of Agriculture, Topeka, Kansas, in order that he may be assured of a copy of the report when complete.

Kansas hog men are urged to get behind this investigation and to help and aid in every way they can to make it a success, for their mutual benefit and profit. They should put their shoulders to the wheel for the common good of all. In matters of this kind—in fact in all the business of agriculture—farmers must join hands, must co-operate and exchange ideas and experiences, just as do men in other businesses, if they are to advance and improve. The Kansas Board of Agriculture is placing a rare opportunity before the hog raisers of that state.

Summer Care of Colt

It is during the first summer that the colt is most subject to scours. This disease can easily be checked if treated immediately, but if allowed to run its course it may prove serious and even fatal.

The colt should never be allowed to suck while the mare is warm and sweaty as the milk at this time is apt to cause scours. If the mare has gone for some time without suckling her colt she should be partially milked by hand before the colt is allowed to feed. Overheating or excitement on the part of the mare is likely to cause digestive disorders in the colt and anything that interferes with his normal growth at this time detracts from his size at maturity.

Don't take the colt to the field and wear him out following his mother, but keep him in the barn in a well ventilated box stall that has been darkened to protect him from the flies. Feed him

liberally and in case he does get the scours cut his milk and feed in half and give him a two-ounce dose of castor oil followed by a teaspoonful twice daily of a mixture of one part salol and two parts subnitrate of bismuth.

Feeding Barley to Pigs

I have never written to you since I have been receiving your paper, but I want to say that it is a fine paper for the farm and we like it very much. The articles on hogs and alfalfa interest me a great deal.

I am sending you a picture of an eight-foot self-feeder that I built myself at a cost of \$9.50, including everything—paint, nails, lumber, and hinges. The bottom is made of two-inch planks. The self-feeder is filled with ground corn, shorts and tankage, all mixed together. I also feed the pigs a little soaked corn twice a day, with plenty of good slop. They have oats for green pasture with self-water, stock powders, and an oiler handy by the feeder.

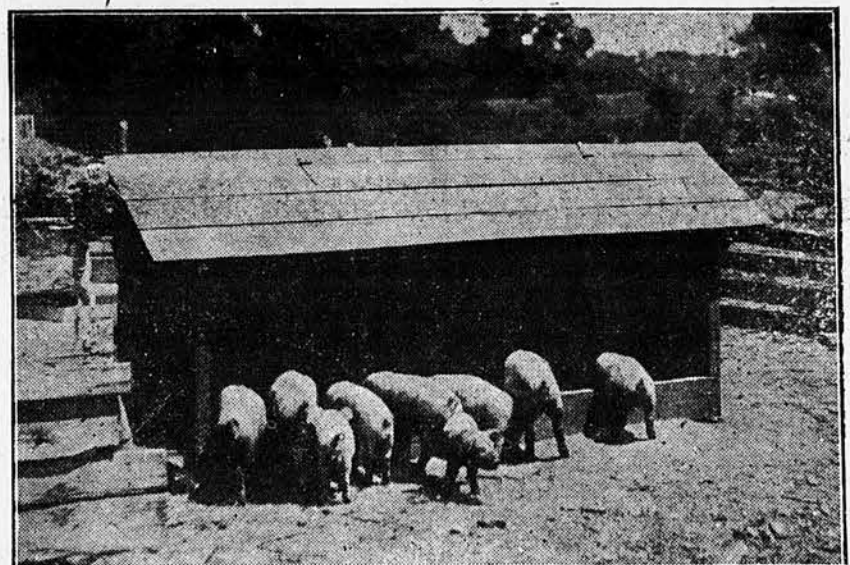
I believe there will be good money in hogs this fall, but of course feed is high. I have twelve acres of barley on bottom land that will be ready to cut soon. I will grind it and mix shorts with it and put it in the feeder in about three weeks.

I am going out after the prizes this fall if my luck continues.—C. E. Rose, Washington County.

Three Years of Lamb Feeding

For three years the Kansas Experiment Station has been conducting tests to determine the relative value of Kansas feeds for fattening lambs. Three hundred lambs have been fed each year, or nine hundred in all. Western range-bred lambs have been purchased for this work. They have averaged fifty-eight pounds in weight when put into the feed lot in the fall. The feeding period the first year was sixty days, the second eighty days, and the third forty, or an average of sixty days for the three tests.

A comparison of corn and kafir has been one of the problems studied. In the tests where corn, cottonseed meal, alfalfa, and silage were fed in comparison with kafir, cottonseed meal, alfalfa, and silage, the cost of a hundred pounds of gain in the lots receiving a corn ration was \$6.38. In the lots receiving the kafir ration the cost of a hundred pounds of gain was \$6.80, the corn ration thus making one hundred pounds of gain forty-nine cents cheaper on the average than the kafir ration. It should be noted, however, that the feeds in each test have been charged at prevailing market prices. Ordinarily kafir sells for about ten per cent less than corn, but in one of the tests the kafir cost more than the corn. Kafir is grown on land somewhat lower in price than corn land, and for that reason the ordinary expectation would be that it could be produced somewhat cheaper than corn.



PIGS ON FARM OF C. E. ROSE, WASHINGTON COUNTY, EATING MIXTURE OF GROUND BARLEY, SHORTS, AND TANKAGE, FROM A SELF-FEEDER

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Kansas Farmer, Topeka, Kansas.

Gentlemen: Please find enclosed \$.....for which send me

KANSAS FARMER.....year.....
One year for \$1.00; two years for \$1.50; three years for \$2.00.

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Are you already taking KANSAS FARMER?

Such is the case over much of Kansas, and normally kafir will not sell for quite so much on the market as corn.

The average gain per lamb in the lots fed corn was 21.7 pounds, and in the lots fed kafir, 20.7 pounds. The small difference in the gains made by the two different rations is an indication of the relative value of the two grains. In these tests the average profit per corn-fed lamb was \$1.37. This is actual profit, since feeds were charged at exactly the cost price on the market. It is evident from these figures that sheep make good use of kafir and that it is very close to corn in feeding value when properly supplemented.

Observations were also made in these tests on the effect of using silage in the

ration for fattening lambs. The average cost of a hundred pounds of gain in the lots fed corn, cottonseed meal, alfalfa, and silage, was \$6.37, and in the lots where the silage was left out, the ration being corn or kafir, cottonseed meal, and alfalfa, the cost of a hundred pounds of gain was \$6.60. The lambs fed silage made cheaper gains, but the gains were not as large as where alfalfa hay was the only roughage fed.

A bunch of range lambs has been fed the past season at the experiment station, and the results of this test will soon be available. This experimental work in feeding lambs will be of great value to feeders in Kansas, many of whom have had little or no experience in handling sheep.

Dairy Products and Food Supply

NO industry is of greater importance than dairying in supplying the world's food requirements. At no time in history has this fact been so vividly brought to our attention. The present world's crisis has brought out in startling form many conditions affecting the existence of the human race, not only as individuals but as nations. Many fundamental principles of food conservation have been brought into prominence, and the relationship of the dairy cow to these questions stands out with most pronounced clearness.

In a recent statement W. B. Munn, president of the American Jersey Cattle Club, pointed out that the terrific destruction of human life now going on affects most immediately the present generation of the European countries, but the reports being made public, little by little, showing the fearful mortality of infant life in European countries affects the world's welfare for generations to come, and it is here that the vital necessity of preserving and developing the milk supply of the world is most strikingly displayed.

These reports show that in many countries in Europe, now engaged in warfare, the death rate of children under two years of age ranges from 48 to 98 per cent, owing largely to the lack of milk supply for food. Never in the world's history has the importance of the food contents of milk and its need for the sustenance and building up of the human race been brought to the attention of humanity so forcefully as today.

These things are of interest to the man on the Kansas farm because they show so clearly the importance of dairying as a world industry. In view of these facts it should be considered almost a crime to permit a good dairy heifer to go to the shambles. In fact the conditions are such that every young female breeding animal is almost worth its weight in gold and should be retained.

All of the questions relating to the dairy industry and its numerous relationships to agriculture and human life will be discussed in all its phases at the National Dairy Show at Columbus this year. Every feature relating to the success and value of this industry will be pictured in words, charts, machinery and exhibits—in fact in every form as far as known today. Every patriotic citizen who desires to help in the development and preservation of this tremendously important industry should attend the National Dairy Show and acquire every possible form of knowledge or information obtainable in order that he may do his or her share at this critical time.

Cool Your Cream

It is of the greatest importance to keep dairy products cool during the summer months. A satisfactory cooler for the milk and cream can be made at a small cost.

If the milk house is near the windmill or hand pump all that is necessary to keep the milk or cream cool and in good condition is a large barrel with pipe connections from the pump to the stock tank. A kerosene barrel, deodorized by burning, will answer the purpose. The inlet pipe from the pump should be near the bottom and the outlet pipe near the top of the barrel. This should lead to the stock tank.

The cans may be hung in the water so that the top of the cream or milk in the can is well below the surface of the water. It is necessary, however, to stir the contents of the cans so that the milk or cream will be evenly cooled. Thick cream should be stirred every fifteen minutes or half hour for two hours. The new cream should be cooled before it is mixed with the old cream.

If you are building a new milk house you will find it convenient to build the cooling tank of concrete. This may be set two feet in the ground and eighteen to twenty-four inches above the ground. It is not necessary for the windmill to keep pumping continuously in order to keep the dairy products cool enough with this arrangement. If the water is changed a few times each day they will keep.

Surtax on Idle Land

In addition to the emergency of food bills in Congress, the country is in need of a land program that will permanently insure maximum use of our food resources. The farmer's greatest difficulty has been inadequate facilities for marketing and distributing his products. The new legislation will go far toward solving these problems, but there is another side to the food problem.

Millions of acres of farm land are being held out of use and other millions of acres are being cultivated on a wasteful and inefficient basis. Land values have risen at an unprecedented rate. They are based not upon what the farm will earn at the present time, but on an expectancy of what it will be worth in the future. The farmer's son or the tenant farmer, with little or no capital, cannot hope to acquire possession of a farm when the price of land is so high that his earnings would not pay the interest on the investment. The result is that land remains idle or in the hands of tenants and thousands of farmers' boys desert the country for the city.

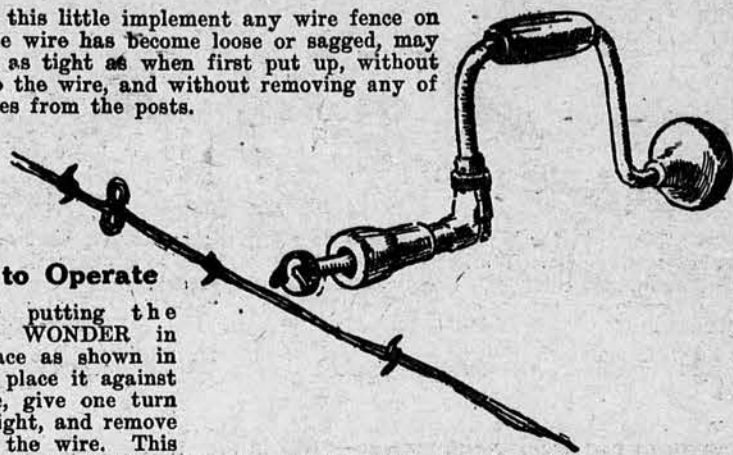
We cannot expect to get them back on the land unless we hold out to them the hope of becoming farm owners. The economic condition of many farm tenants is below that of the skilled or semi-skilled day laborer of the industrial centers.

What we need, and need badly, is a program of taxation which, without throwing additional burdens on the bona fide farmer, will place land now idle within the reach of men of limited means who possess the ambition and the ability to cultivate it.

A proposal has been introduced in

THE LITTLE WONDER

With this little implement any wire fence on which the wire has become loose or sagged, may be made as tight as when first put up, without injury to the wire, and without removing any of the staples from the posts.



How to Operate

After putting the LITTLE WONDER in your brace as shown in the cut, place it against the wire, give one turn to the right, and remove it from the wire. This will leave a double loop or figure 8 in the wire, thereby taking up the slack without injuring the wire in the least.

THE WIRE CAN BE TIGHTENED AND A HALF MILE OF FENCE REPAIRED IN A FEW MINUTES

THE LITTLE WONDER sent postpaid for 50 cents. Agents wanted.

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The practical "Food Training Camp" for all people.

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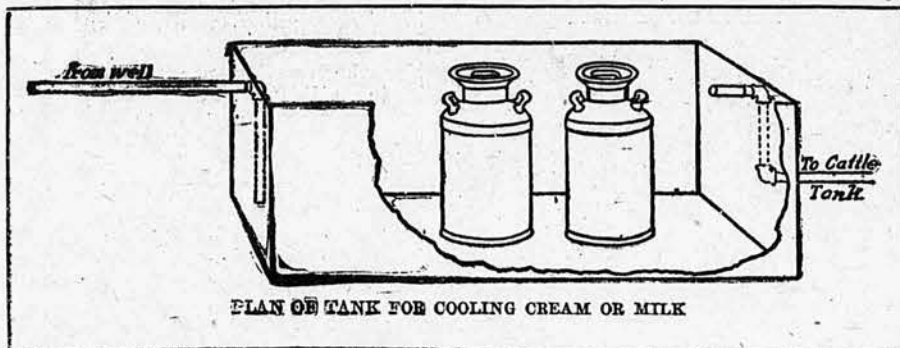


Congress by Senator Kenyon to direct an investigation by the Federal Tariff Commission or some other competent body into additional sources of revenue, including the possibility of levying a surtax on idle land and other natural resources held out of use.

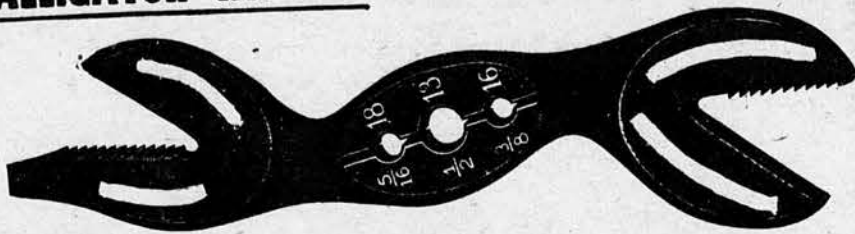
A doubt exists as to the possibility under the constitution of a Federal surtax on idle land. There is a sharp difference of opinion as to whether or not such a tax could be levied. The situation should be clarified by an investigation and a report from some competent body. If a constitutional amendment is necessary it should be initiated without

delay. In the meantime, state and local governments should direct their attention to this phase of the food problem and take what steps are wise and practicable to place unused land within the reach of all who are willing and able to cultivate it.—CARL VROOMAN.

Young people who contemplate attending business college or auto training school this fall or winter will find it to their advantage to write us. KANSAS FARMER has some information that will be of genuine interest to you. Address DESE D, KANSAS FARMER, Topeka, Kan.



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SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

HELP WANTED.

RAILWAY MAIL CLERKS WANTED. Men, 18 or over. Commence \$75 month. Every second week off with pay. Education unnecessary. Sample examination questions free. Write immediately. Franklin Institute, Dept. A-82, Rochester, N. Y.

FARMERS, 18 OR OVER, WANTED (men-women) U. S. Government jobs. \$90 month. Hundred vacancies. Common education sufficient. Write immediately for free list of positions. Franklin Institute, Dept. E-82, Rochester, N. Y.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and helpers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

REGISTERED HOLSTEIN BULL READY for service. Two of his dams averaged 100 pounds milk in one day and 35 pounds butter in seven days officially. \$100. Wisconsin Live Stock Association, Appleton, Wis.

FOR SALE—VERY CHOICE HIGH- grade Holstein calves, either sex, three to six weeks old, at \$20 per head, crated for shipment. Or if you want dairy cattle of any age, I will buy them at a commission from the best herds in Southern Wisconsin. Albert M. Hanson, Whitewater, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. \$23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

TRACTORS.

40-50 AVERY TRACTOR AND FLOW rig. Shidler Brothers, Lake City, Kansas.

HORSES AND MULES.

JACK FOR SALE OR TRADE—FIVE years old, gray, 14 hands jack measure; excellent breeder. Sacrifice price. Harry Blason, Eureka, Kansas.

Bathing the Baby

Baby should have his own tub, towels, soap, and wash cloths for his daily bath. A bath thermometer is inexpensive and convenient. During the first few months the temperature of the bath should be about ninety-five degrees Fahrenheit. By the end of the year it may be lowered to ninety or eighty-five degrees. If a thermometer is not available, test the water with the elbow. When the water is pleasantly warm to the elbow, it is just right. If tested with the hand for temperature, it will probably be too hot. The temperature of the room should be about seventy-two degrees, and all drafts should be carefully avoided.

If given properly, baby's bath is a pleasure to both mother and child. As nearly as possible the bath should be given at the same time each day. In order to gain speed and dexterity, follow a regular routine, doing it in the same way each time. Do not frighten the infant, but handle him gently. Avoid all unnecessary delays which exhaust his small store of strength and patience. The whole set of clean clothing should be laid out ready to be put on as soon as the bath is completed. If you are

going to weigh the baby, have the scales at hand.

As baby lies on a large bath towel folded on the table, or on an apron of soft toweling in your lap, he is ready for the first step in bathing. With a soft cloth wash his face and head before undressing him. Just a little soap is needed, which should be completely rinsed off. Do not rub the delicate skin, but pat it thoroughly dry with a soft towel. Talcum powder is not necessary, but if it is desired only the best quality should be used.

Now baby must be undressed. Take his clothes off over his feet. Then soap him thoroughly from neck to toe. Lift him gently into the tub, supporting his back and head with the left hand and arm. Lift his feet with the right hand.

Baby's back must not be strained. Keep it supported by the left hand while you sponge with the right hand. Rinse off every particle of soap, as it irritates his tender skin. Lift baby out and pat his body gently with the towel until dry.

A bran bath soothes baby in sultry weather. Put several cupfuls of bran in a thin cloth, wet it, and squeeze the bag into the water until it becomes milky. A soda bath is cooling and comforting for prickly heat.—EDNA L. BOYLE.

DOGS.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons. Large instructive list. Sc. W. R. Watson, Box 128, Oakland, Iowa.

WANTED

WALNUT LOGS WANTED, FOURTEEN inches and up. Give number and size first letter; distance to R. R. W. A. Schwartz, Louisville, Kansas.

THE STRAY LIST.

TAKEN UP—BY BARNEY McCABE, residing seven miles north of Iola, Allen County, Kansas, June 12, 1917, one bay mare, about twelve years old. The mare has a white face, black mane and tail, three white feet and some harness marks. Appraised at \$40. Geo. Seymour, County Clerk, Allen County.

ALFALFA.

ALFALFA SEED, \$8 PER BUSH. Good purity and germination but dark color. Better grades for more money. Write for free samples and prices. Henry Field, Shenandoah, Iowa.

MISCELLANEOUS.

FERRETS—FEMALES, \$2.50; MALES, \$2; pair, \$4. H. G. Hardy, Wellington, Ohio.

MAIL YOUR BROKEN GLASSES TO REG- ester Bros. Optical Co., Norton, Kansas. Any lens duplicated promptly.

MAKE YOUR LAUNDRY SOAP. MY recipe makes 25 pounds beautiful white soap for 50c. Price, 25c. C. V. Liggett, Pueblo, Colo.

HONEY.

HONEY—NEW CROP. SEND FOR PRICE list. Bert W. Hopper, Rocky Ford, Colo.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Little things are little things,
But faithfulness in little things
Is something great.
—St. Augustine.

We are in such haste to be doing, to be writing, to be gathering gear, to make our voice audible a moment in the silence of eternity, that we forget that one thing of which these are but the parts—namely, to live.—ROBERT LOUIS STEVENSON.

Rubber rings! You'll need good ones while the jars are still hot.

Let empty cans and jars wait for fruit. Don't try to make fruit wait long for containers.

When the white shoe laces become soiled, wash them in soap and water. They will look like new ones.

If the grown-ups think canning is a difficult process, the children will show them how.

Value of Recreation

A friend who is a busy farm woman recently recounted the duties of one day upon our questioning her on this subject. After breakfast she helped her husband hitch the binder and ran the machine while he got the automobile out of the shed. She then did her outside work for the morning and her house work and was soon on her way to town in the car, for more binding twine. Upon returning, dinner was the thing that claimed her attention first, and when the meal had been prepared she went to the field and ran the binder while her husband ate his dinner. When her dinner work was finished she dressed and attended the meeting of her home improvement club. After preparing supper she again took charge of the binder while her husband ate, and when the supper work and chores were finished the two went to the wheat field and by the light of the moon shocked wheat until ten o'clock.

Many farm women have as full days as this one, but the remarkable thing about this young woman's story is that she took the time to go to her club in the afternoon. Undoubtedly there were things at home to be done, but neglect of them was not harmful as they could be done at another time, and the club meeting was very helpful and refreshing. While there, her tired body was resting and the heart-to-heart talks of her neighbors on home improvement "fell on fertile soil," the effort made by her to hear them being proof of her interest in the subject.

Many will say this story will do to tell, but they could not follow this woman's example, for the chickens must be watered two or three times during the afternoon and there are other things that must be done. We agree that there are times when work cannot be left, and we have no doubt our friend recognizes such times, but she is not forming the habit of allowing her work to crowd into every minute of her day and her life. Later when she told us she felt she could not be happy any place but on the farm, we could not help wondering if an hour or two each day to be spent in recreation would not increase the happiness of many other farm women.—JANETTE LONG.

Home-Made Refrigerator

A refrigerator can be made of two dry goods boxes, one placed inside the other. The outside box should be considerably larger than the inside one. A good size for the outer box is 36 inches wide, 48 inches high, and 20 inches deep. The inside box should be 14 inches wide, 32 inches high, and 14 inches deep.

Place the smaller box inside the large one. Fill the space left between the two with fine pine shavings pounded tightly into it. This disposes of the spaces at the top, bottom and two sides of the in-

side box. The entire chest should then be turned over, a board removed from the back, and the space there packed snugly with shavings. Place the chest on legs six inches high, made of 4 x 4 lumber.

The next step is finishing the interior of the inside box. If the pieces fit well, this may be given several coats of enamel. If not, line the interior of the box with tin or galvanized iron and enamel heavily so that a hard, smooth surface may be obtained. A partition for the ice should be placed in one of the upper corners, in order to insure a good circulation of air. The floor of this partition should slant toward the back for disposing of water, which may then be carried to a drip pan at the bottom of the refrigerator by means of a small tin pipe.

The efficiency of the refrigerator depends as much on the fitting of the doors as on insulating material in the walls. After packing, the space between the two boxes should be closed and the surface made smooth to receive the door, which should be made with double walls, and packed as the walls of the box. Some sort of fastening to hold the door tightly against the box is essential.

Cooking in Large Quantities

Did you ever cook for threshers or hay balers? If so you have wished for recipes that give ingredients in larger quantities than does the home cook book.

No book is to be found on the market that gives large recipes in a satisfactory manner. Foods prepared by simply multiplying the amounts given in the small recipe often fail.

When it devolves upon the housewife to prepare for several times the usual number, convenience in preparation is as important as correct proportions. The following recipe for corn pudding can be recommended:

3 quarts canned (cooked) corn
6 tablespoons sugar
2 tablespoons salt
3 quarts milk
12 eggs beaten slightly
3 quarts stale or dry bread crumbs,
broken or crumbled, not ground
or rolled
1/2 cup butter
1 teaspoon pepper.

Mix. Bake in buttered pans one hour or until knife comes out clean. Serve in baking dishes or in side dishes. Makes forty servings.

An economical and convenient meat dish may be prepared by purchasing fifteen pounds of beef, ground as for hamburger steak, and making meat loaf as follows:

15 pounds meat
6 tablespoons salt
2 quarts cracker crumbs
2 tablespoons sage
3 whole eggs or 5 yolks
3 quarts milk.

Mix seasoning. Work in gradually. Add milk, eggs, and crumbs alternately. Make into 24-ounce loaves. Pack into oiled one-loaf pans. Bake one hour. This makes eight loaves or seventy-two slices, keeps well, and is good cold.

Plain paste for nine one-crust pies may be made as follows: Use three quarts flour, four teaspoons salt, three cups lard, and enough cold water to handle. Cream filling for nine pies:

8 cups sugar
8 pints milk
6 tablespoons butter
2 1/2 cups cornstarch or 3 1/2 cups flour
14 yolks.

Mix the cornstarch or flour and the sugar and stir into the milk, heated almost to boiling. Stir until it thickens and cook in a double boiler one-half hour. For the frosting use fourteen whites beaten stiff to which has been added somewhat gradually, when nearly stiff, fourteen tablespoons sugar.—MARY M. BAIRD.

Can Beet Tops

None of the young beets that are pulled for thinning should be allowed to go to waste, but should be canned for use next winter. The beets and the tops can be canned together. They should be washed thoroughly before steaming.

For steaming they can be tied in a clean cloth and set on a false bottom in a vessel in which the water is boiling, and should be left there for fifteen minutes after the water again begins to boil. When taken out they should be plunged into cold water and then packed in the jars. Beets and beet tops in pint jars should be sterilized two hours in the hot-water bath and when packed in quart jars require two and one-half hours.

Vinegar may be added at the time of canning if this is desired—one tablespoonful to one quart of tops.

For beet greens, the beets should be used when they are about the size of the end of a finger. If the little beets are canned with the tops, they should be skinned after they have been steamed and plunged. The tops may be cut in lengths ready for serving.

Germ middlings recently were highly recommended to us as breakfast food. The friend telling us about this wheat product and who has used it exclusively for eight years, cooks it as she would oatmeal. If started at night in a double boiler and covered well, it will be necessary only to reheat the food in the morning. Care should be taken to have the water in the outside vessel boiling

hard and the middlings should be stirred into water that is boiling. After cooking a short time it can be set back and the steam will finish the cooking.

One-Egg Cake

1 1/4 cupfuls butter
1 cupful sugar
1/2 cupful milk
1 egg, well beaten
1 1/2 cupfuls flour
1 1/2 teaspoonfuls baking powder
Cream butter and sugar and add other ingredients in order named, sifting baking powder and flour together.

Baked Ham and Potatoes

Place slice of ham and potatoes in covered roaster. Put in enough sweet milk to cover ham. Bake in slow oven until potatoes are cooked. When ham and potatoes are taken out, thicken milk with flour.

If ham is very salty, potatoes will need none.

An old-fashioned hair net with a rubber in it makes comfort possible for a woman when riding in an automobile. Use the net as a veil, letting it come just below the nose, and see to it that it covers the hair. This will keep the hair out of the eyes and will add greatly to the enjoyment of the ride.

FASHION DEPARTMENT—ALL PATTERNS TEN CENTS

This department is prepared especially in New York City, for Kansas Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering, all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want, and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our fashion book, "Every Woman Her Own Dress-maker," for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to Kansas Farmer, Topeka, Kansas.



No. 8293—Ladies' Waist: Cut in sizes 34 to 42 inches bust measure. The point which distinguishes this waist from all others is that the back and front are in one. This is done in order to have the two tucks in a straight line. The fronts are slightly gathered at the shoulders. An interesting note which lifts the blouse out of the commonplace is the plain vest which gives the new square neck outline at the top. No. 8288—Children's Pajamas: Cut in sizes 2, 4, 6, 8 and 10 years. To keep the young hopeful of the family in good health as well as good spirits it is essential that we have the right kind of sleeping garments. The pajamas shown are sensible and practical because of the fact that the coat and pants are united in a single garment. The back is finished with a belt and has an opening on both side seams. No. 8297—Ladies' Shirtwaist: Cut in sizes 36 to 44 inches bust measure. This waist would be worthy of notice for its clever collar, if for no other reason. It is as wide as the shoulders in the back, and gradually slopes in until it reaches the revers in front, where the ends form pointed tabs which slip through slots. The revers are cut in one with the fronts of the waist. No. 8295—Misses' Dress: Cut in sizes 14 to 20 years. This charming little frock has more than one good point and they are all emphasized by tassels. It is so simple and the directions for making are so clear that any girl may safely attempt to make it herself. Long sleeves are used. The waist is without fullness across the back, but the gathers in front are concealed by two narrow belts. The skirt has three gores. No. 8294—Ladies' Skirt: Cut in sizes 24 to 32 inches waist measure. It seems almost incredible that this is nothing more than a straight one-piece skirt, but such is the case. It is a welcome addition to the skirt family because of its simplicity. The material is plaited to form four panels, each one stitched down to the hip line. The rest of the skirt is gathered to the slightly raised waist line between panels. No. 8299—Misses' Dress: Cut in sizes 16, 18 and 20 years. What girl can resist the appeal of this little frock, with its simple but effective braiding? The loosely fitting waist in this case extends several inches below the regular waist line and is given a trim appearance by the shallow plaits which hold the soft girle in place. The one-piece skirt may be plaited or gathered.

We Need Your Help In a Critical Time

KANSAS FARMER READERS CAN BE OF GREAT HELP TO THEIR FAVORITE FARM PAPER NOW

KANSAS FARMER comes to you through the mails. It is distributed under the jurisdiction of the Post Office Department, which has made some new rulings which the publishers of KANSAS FARMER must observe in respect to the procuring and continuation of subscriptions. During these critical times the rulings may be changed at any time, at the option of the Post Office Department.

The Postmaster General has made a ruling which makes it necessary that certain classes of subscriptions may not be carried after expiration. It has always been customary and permissible for the publisher to carry, at his option, subscriptions for a short time after they expire, in order that the subscriber might have an opportunity to renew his subscription and thus prevent his missing any copies of the publication.

The new rule, however, requires that this practice must be stopped.

We feel that you want KANSAS FARMER, because it is strictly a Kansas paper and is striving to help you in your work, and you certainly do not want to miss the good things that this old paper carries each week for the betterment of farm conditions. We do not want to discontinue your paper. We are very anxious to retain every one of our subscribers. In order to do so, we must urge that you send us your renewal subscription at once.

Here are four distinct offers which we submit to you. We will greatly appreciate your acceptance of any of them:

1. May we immediately have your renewal for one year at \$1.00?
2. If you send us \$2.00, we will renew your subscription for three years—a saving of \$1.00.
3. If you will send us the subscription of two of your neighbors for one year for \$1.00 each—\$2.00 in all—we will renew your own subscription one year without additional charge in appreciation of this service rendered.
4. If you will send us the subscriptions of four of your neighbors at \$1.00 each—\$4.00 in all—we will extend your subscription for a period of three years without additional charge.

We have provided a special blank below to be used in sending in your renewal subscription or the subscriptions of your neighbors. May we again urge you to co-operate with us by accepting one of the offers provided?

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I enclose \$.....for.....subscriptions to KANSAS FARMER for one year each. For this service I am to receive KANSAS FARMER for { 1 year } without additional charge. { 3 years }

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(To be used in case Club Offer is not accepted.)

KANSAS FARMER, Topeka, Kansas.

Enclosed please find { \$1.00 } to pay for my renewal to KANSAS FARMER for { 1 year } { 3 years } as per offer above.

Name

Post Office

R. F. D..... Box..... State.....

Patriots and Loyal Citizens Will Want to Show Their Colors



"Your Flag and My Flag"

*"Long may it wave
O'er the land of the free
and the home of the
brave"*

The big demand, the scarcity of good dyes and the high price of cotton have made it hard to secure flags. We have been fortunate enough to secure a few high-grade printed flags 3 feet by 5 feet with canvas heading and brass grommets, colors fast.

**You May Have One of These
Flags If You Act Promptly
HERE IS OUR OFFER**

For only \$1.50 we will enter your subscription or extend your subscription for one year and send you this beautiful flag, postpaid. Or for \$2.00 we will renew your subscription for one year and one new subscription for one year and send you one flag postpaid.

Don't Delay—Send Your Order NOW, Before It Is Too Late

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DESK D, KANSAS FARMER, TOPEKA

Real Estate For Sale

Will Trade Iowa Farm for Cattle

We will exchange a good Iowa farm for a top quality herd of Hereford cattle. Write, giving full particulars, to
AMOS BURHANS, Waterloo, Iowa

STOP, LOOK and LISTEN!

Deal direct with the owner. Half section improved and half section unimproved, Eastern Elbert Co., Colorado, well located at a bargain. Guarantee full and accurate details in first letter.
F. E. JANKS - STRATTON, COLO.

If you would buy a farm for less than value of crops raised this year, write us. Corn, oats, and wheat, almost perfect crop.
SOUTHERN REALTY CO., McAlester, Okla.

TOPEKA HOME
1½ lots, 8-room modern house, good barn, \$6,000. Address
Mrs. W. A. Sproat, 518 Topeka Ave., Topeka

SHETLAND PONY FOR SALE

Shetland pony mare, not registered, coming three years old, bred to a registered Shetland stallion. Broke to ride. Will sell at a bargain if taken soon. Address

D. CARE KANSAS FARMER.

PURE BRED POULTRY

PLYMOUTH ROCKS.

WHITE ROCK EGGS, \$4 PER HUNDRED. Nora Lamaster, Hallowell, Kansas.

BARRED ROCKS — SEVENTY-THREE premiums. Breeders for sale. Eggs half price. Mattie A. Gillespie, Clay Center, Kansas.

SEVERAL BREEDS.

FIVE LARGE FLOCKS UNDER ONE sale management, R. C. Reda, Barred Rocks, Silver Wyandottes, White Wyandottes and White Leghorns, all on separate farms and specially bred by experts. Prize winners in all breeds. Eggs, \$5 per hundred, \$1.50 per setting. Order from ad. Address E. H. Hartenberger, Route 4, Box 1, Newton, Kan.

POULTRY WANTED.

ALWAYS QUICK RETURNS FOR EGGS and poultry. Coops and cages loaned free. The Copes, Topeka.

JERSEY CATTLE.

B. C. SETTLES

Jersey Cattle



Pedigrees Public Sale

Catalogs Management

Palmyra - Missouri

120 Jersey Cows and Heifers

Pure-bred and high grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. BERRY & SON, Jewell City, Kansas

REDHURST JERSEYS

Grandsons of Golden Jolly and Noble of Oaklands for sale. Also a few fancy cows and heifers of same breeding. Write.

REDMAN & SON - TIPTON, MISSOURI

JERSEY CATTLE

One four-year-old cow, milked 35 pounds 5 per cent milk with second calf. Will freshen in December to service of our great son of Sans Alois. Also four splendid Finance Interest bulls from four to six months old. Write for pedigrees and descriptions.

BISON FARM - LAWRENCE, KANSAS

Jersey Calf Bull dropped January 4, 1917, out of a rich-milking good-type dam. A bargain. **W. T. Ballagh, Nevada, Missouri.**

Registered Jersey Bulls, butter-bred, from high producing cows. Photo furnished. Maxwell's Jersey Dairy, Route 2, Topeka, Kan.

Jersey Cows For Sale

Eighteen head of choice, young, registered Jersey cows fresh and coming fresh. Priced for quick sale.
N. L. DUCHESNE, GREAT BEND, KANSAS

The old hen's body is over sixty per cent water. The body of the growing chick ranges as high as seventy-two per cent water. During these long hot days a liberal supply of water should always be provided. Do not expect the hens to go to the horse trough to drink. Each dozen eggs contains one pint of water. Here, too, is a demand for plenty of water.

If you will keep the poultry house clean, and provide a proper dust bath, the hens will enjoy making their toilet and keep their bodies clean and free from vermin. Dry, sifted coal ashes on the floors of the poultry houses is one of the best things for this purpose. Dry earth is also very good, and is preferred by the hens to the ashes.



A Small Beginning in Poultry

AS AN illustration of what can be accomplished with a very small beginning in the poultry business, it might be interesting to our readers to have the story of how Mrs. E. B. Gilliland of Wichita started in last year with one hen and one rooster. She writes as follows in telling how she started in raising poultry and producing eggs:

"On the first of March, 1915, my sister was moving from Wichita to Iowa. She had one particular pet hen which she could not bear to sell with the rest of her flock. I was not keeping chickens at the time, although I had an excellent place in my back yard. She offered to give me the hen—may, she even begged me to take her—not for my sake nor the hen's sake, but just so she would be able to sleep nights without dreaming that someone was making a pot-pie of 'Blackie.' Well, I confess I didn't want the hen and it was with very luke-warm thanks that I accepted the gift, and then only conditionally, the condition being that if I took the hen she would give me a rooster, too. She did, and the next job she had on hand was to persuade her brother—my husband—that it was his duty to make a martyr of himself and lug those two chickens in a sack four miles on the street car to their new home. It wasn't an easy job, either. It took a lot of diplomacy and persuasion, but she has a winning smile and generally gets whatever she wants, so after many mutterings and maledictions, from the man on all chickens in general and those two miserable black chickens in particular, they were finally deposited in a shed in my back yard.

"The next evening when the man came home I proudly exhibited the most beautiful, great big, snow-white egg I had ever seen. 'Hm!' He wasn't interested. White eggs didn't taste as good as brown eggs, anyway, and as for a black chicken, they were an abomination. You couldn't dress one so it would look fit to eat on account of the black feathers leaving a black deposit under the skin.

"Well, at the end of five days I had five eggs, none having been sacrificed to the frying pan because we bought brown eggs to eat. The sixth day Blackie missed, then five more eggs, another miss, and then five more. Then I bought a setting hen from a neighbor, put those fifteen eggs under her and began to save up for another setting. I kept the eggs in the cellar and turned them every evening when I added that day's egg. The first setting hatched fifteen of the prettiest, liveliest little coal black chickens I had ever seen, and the best part of it was that the hen raised every one of them—five pullets and ten roosters. The next hatch was fourteen chicks out of fifteen eggs with twelve raised to maturity. The next setting—two hens at one time—I got twenty-five chicks out of thirty eggs, only raising nineteen of them. I lay this to the fact that I gave all twenty-five to one hen and I think she had more than she could well take care of. The next hatch came off June 21 and only eleven out of fifteen eggs, the next one July 12 and only ten out of fifteen eggs, the next and last one August 4 and only eleven out of fifteen eggs. The eggs were all fertile and some of those which did not hatch had fully developed chicks in the shells. I think the hot weather was the cause of the poor hatch. Out of 105 eggs set I hatched eighty-six chicks and raised seventy-four of them. Most of the chicks were roosters but I saved seventeen fine pullets out of the lot. I could have saved more, but that was all that I had room to keep through the winter.

"As I only had this one hen on the place I could easily keep track of the eggs she laid. She never once offered to set. The hens which I bought to raise the chickens were Buff Orpingtons and Rhode Island Reds, so I had no trouble to know Blackie's eggs from the others when they began to lay after weaning their chickens. From March 1 to October 1 that one hen laid 143 eggs. Then she took a rest and I could not say

when she began laying again, for the first of November the pullets from the first hatch began to lay and as the eggs were all alike I could not tell one from another. As I have not time to use trap nests, I cannot tell whether the daughters equal the mother's egg record or not, but I do know that I seldom get less than fifteen eggs a day from the eighteen hens, and that record has been kept up since March. Some of the pullets did not begin laying till March, as they were hatched very late.

"These chickens are White-faced Black Spanish. We are entirely reconciled to black chickens and white eggs. I found that it was no more trouble to dress a black chicken so it would look fit to eat than it was to dress a white one. The only thing necessary was to have plenty of water to wash them after picking and to press out the black secretion either with your fingers or the handle of a spoon. Don't use a knife or you will tear the tender skin.

"Last August my rooster went blind. He had such a heavy white face that it grew over his eyes and as he could not see to eat, we had to kill him. I tried to get another this spring but could not find anybody who kept this breed, so I did not raise any young chickens this year. This fall I intend to hunt up someone who has pure-bred White-faced Black Spanish and get a good cockerel and mate him with six of the best pullets—and of course old 'Blackie' goes into that breeding pen, too. Next year I am going to fill incubators instead of setting the hens with the eggs I get from these pullets and 'Blackie.'"

Cheap Winter Eggs

Here is a story of what a town man did last winter in producing eggs for his own use. While most of his neighbors were paying from thirty-five to forty cents a dozen for eggs, H. L. Kempster, who is poultryman at the Missouri College of Agriculture, was producing his for eighteen cents a dozen.

He had a small poultry plant in his back yard. His chicken house, six feet square, was built for less than four dollars. The laying flock, consisting of ten White Leghorn pullets, was placed in the new house November 1. No male bird was included in the flock. No space was available for a yard, but the confinement, which is not advisable for breeding stock, did not seem to reduce egg production.

The ten hens produced 409 eggs from November 1 to March 31. Mr. Kempster considers this production good since only two of the hens were old enough to lay before January 1. Only forty-four eggs were laid the first two months, while 365 were laid during January, February and March. Even then the 409 eggs were produced at a food cost of seven dollars, or less than eighteen cents a dozen. At market prices which averaged thirty-five cents a dozen, the eggs were worth \$12.13. In other words, the hens returned a profit of fifty cents a bird above cost of feed. During March the feed cost of a dozen eggs was less than nine cents. It is thus seen that the longer the hens are kept, the lower the feed cost of a dozen eggs will be. By July 1 it will be not more than thirteen cents a dozen for the whole period. The test has demonstrated that laying hens can be kept on any back yard, no matter how small, without becoming an objection to the neighbors, and that eggs can be economically produced.

The birds may be used for meat as soon as they become broody and cease laying. The market value usually increases until June so that the initial investment with interest can be obtained at any time by selling the birds.

If your hens are compelled to roost in tight, poorly ventilated houses these hot nights, they will not be in fit shape to lay heavily. Hens that set on the roosts half the night with their wings spread out and panting for breath, are not going to get a good night's rest. Consequently they are not ready for a day of activity in gathering feed from which to manufacture eggs.

EDGEWOOD FARM
REGISTERED ANGUS BULLS. HAVE FIFTEEN STRONG YEARLING BULLS FOR SALE.
D. J. White, Clements, Kansas

POLAND CHINAS

POLAND CHINAS.

Faulkner's Famous Spotted Polands
The world's greatest pork hog are raised exclusively on
HIGHVIEW BREEDING FARMS
The largest registered herd of old, original, big-boned, spotted Polands on EARTH.
Spring Boars Now Ready to Ship, Pairs and Trios No Kin.
Spring Pigs Now Ready to Ship, Pairs and Trios No Kin.
H. L. FAULKNER - BOX D - JAMESPORT, MISSOURI

OLD ORIGINAL SPOTTED POLANDS
Choice March and April pigs of both sexes.
H. A. MATTOX, Route 2, Burlington, Kan.

Langford's Spotted Polands. Gilt bred for fall farrow. Future herd boars. Satisfaction guaranteed. T. T. LANGFORD & SONS, Jamesport, Missouri

POLAND CHINA HOGS 150 HEAD IN HERD
Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see me.
V. O. JOHNSON - AULINE, KANSAS

TOWNVIEW HERD BOARS
Ten big stretchy fellows farrowed in June. Every one a good one. Two choice fall yearlings. I ship my boars and gilts any place on approval. They make good. Prices are right. CHAS. E. GREENE, Peabody, Kan.

POLAND CHINA BOARS
Twenty-five choice spring boar pigs sired by Caldwell's Big Hog, Big Hadley Jr., King Price Wonder, Columbus Defender, Big Bob Wonder and Fessy's Tim. Some fine prospects and priced reasonable. Immune.
BERT E. HODSON, ASHLAND, KANSAS.

OLD ORIGINAL SPOTTED POLANDS
Stock of all ages, sired by seven of the very best boars of the East and West. Priced right. Write your wants to the
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

Henry's Big-Type Polands
Spring pigs, either sex. June delivery. Sired by Mammoth Orange, King Price Wonder, Big Wonder. Choice of lot, \$35. Trio, \$100. Others, \$25. First check, first choice.
JOHN D. HENRY, LECOMPTON, KANSAS

DUROC JERSEYS.

JONES SELLS ON APPROVAL
February, March and April Durocs, pairs and trios and herds unrelated. First class pigs at reasonable prices.
W. W. JONES, CLAY CENTER, KANSAS

LONE TREE DUBOC FARM
Herd Boar Graduate Prince by Graduate Col. Sows, Ohio Chief, Tatarax, Model Top and Good Enough Again King blood lines. Spring pigs, two for \$35.00, three for \$45.00; not related.
GEO. J. BURKE, LITTLE RIVER, KANSAS

IMMUNE DUROC-JERSEYS
Forty-five head spring boars and gilts, March and April farrow, by Gano Pride 2d by Gano Pride, out of a Graduate Col. sow. Herd sows best of breeding. Write for prices. T. F. DANNER, Winfield, Kansas.

McBRIDE'S DUROCS
Bred gilts for September farrow and boar pigs for sale from four to six months old.
W. T. McBRIDE - PARKER, KANSAS

IMMUNED DUROCS
With size and bone. Bred sows and males a specialty. 150 early pigs, pairs and trios, no kin. All immune. Satisfaction guaranteed. C. G. Dittmars & Co., Turney, Mo.

GALLOWAY CATTLE.

GALLOWAY BULLS
SIXTY yearling and two-year-old bulls, strong and rugged; farmer bulls, have been range-grown. Will price a few cows and heifers.
E. E. FRIZELL, Frisell, Pawnee Co., Kansas

AUCTIONEERS.

Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere. CLAY CENTER, KANSAS
Write for date.

LESTER B. HAMILTON Live Stock Auctioneer
Write for terms and date. Clarksdale, Mo.

BERKSHIRE HOGS.

KING'S BERKSHIRES - Twenty good Berkshire fall boars. One good yearling boar. E. D. KING, Burlington, Kansas.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

POLLED DURHAM CATTLE.

FOR SALE—Two red and white bull calves, 10 months old, sired by Chief, a son of True Sultan. Priced to sell.
D. C. VAN NICH - RICHLAND, KANSAS
(On Mo. Pac. Ry., 17 miles S. E. of Topeka)

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Holsteins.
Oct. 16—The Nebraska Holstein Breeders' Consignment Sales Co., Omaha, Neb.; Dwight Williams, 103 Bee Bldg., Omaha.

Poland Chinas.
Aug. 15—H. L. Faulkner, Jamesport, Mo.
Oct. 4—Dr. J. H. Lomax, St. Joseph, Mo. Sale at farm near Leona, Kansas.
Oct. 5—U. S. Byrne, Saxton, Mo.
Oct. 16—H. B. Walter & Son, Birmingham, Kansas.
Oct. 17—Walter B. Brown, Perry, Kansas.
Oct. 24—Fred G. Laptad, Lawrence, Kansas.

Red Polled Cattle.
Sept. 4—Milton Pennock, Delphos, Kansas.

Durocs.
Oct. 24—Fred G. Laptad, Lawrence, Kansas.

Hampshire Hogs.
Oct. 12—Kansas Hampshire Swine Breeders' Association and Halcyon Hampshire Pig Club sale at Valley Falls, Kansas. George W. Ela, secretary and manager.

O. I. C. Hogs.
Sept. 4—Milton Pennock, Delphos, Kansas.

R. I. Little, of the Illinois Horse Company, of Walford and Des Moines, Iowa, report the demand for choice stallions increasing. Mr. Little has been engaged in the draft horse business for years and has many winnings to the credit of his show herd. A feature of the herds at the farm near Walford, Iowa, and in the barns at Des Moines, is the choice lot of stallions including prize winners.

Dr. B. P. Smith, of Miltonvale, Kansas, has collected together a small herd of registered Holstein cows and heifers that are very promising. A number of the cows have A. R. O. tests and the ten head of two-year-old heifers are a feature of the herd at this time.

W. W. Jones, of Clay Center, Kansas, is making great success with his Durocs. He has a number of herd sows that come from Ira Jackson's herd and are of the O'Brien, Cherry Chief and Illustrator breeding. About fifty spring pigs are coming along fine. Among them is a choice lot of herd header prospects.

T. R. Maurer & Co., of Emporia, report their big herd of Holsteins doing well and a steady demand for the high class kind. A feature of their herd at this time is a large number of choice heifers closely related to the world's champion, Segis Fayne Johanna. A lot of them have been bred to their great herd sire, Canary Mercedes Sir Wadnah, whose dam produced 26.90 pounds butter and 541.70 pounds milk in seven days.

Breeders of pure-bred swine should not overlook the present opportunity to sell their surplus breeding stock. The prospect for an unprecedented demand was never brighter than at this time. Market hogs are high and hogs are scarce and all reports now are favorable to continued high prices for fat hogs. This condition never fails to create a demand for breeding stock. The use of a little space in Kansas Farmer will reach a very large number of prospective buyers and the breeder who advertises will be the first to sell his breeding stock. The advertising locates the stock for the buyer. This saves him time and trouble and he naturally goes to the herd he has located instead of losing valuable time in an endeavor to locate other herds. Reports from the corn belt in Kansas—in fact from the entire corn belt—are at this time very favorable for a big corn crop, and this always means an additional demand for breeding hogs even when hog prices are far below the present figures and prospects for continued demand and high prices not near so promising.

The National Duroc Jersey Record Association has just purchased Liberty War Bonds to the extent of \$1,000, and has authorized the further purchase of bonds to an equal amount when the second issue is made. This action illustrates in a practical way the attitude of the members of the National Duroc Jersey Record Association in the present crisis.

A treatise on hog raising from the viewpoint of the packer has been compiled and is being sent out to the swine raisers of the country by Armour & Company. The booklet is the work of E. R. Gentry, general hog buyer for Armour & Company, assisted by Dr. R. J. H. DeLoach, director of Armour's Bureau of Agricultural Research and Education. It is not intended to supplant the excellent treatises on swine breeding put out by the government and by other learned authorities; on the contrary it is designed to make those works more valuable to the

HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS
BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING
of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

In order to clear our pastures for our grade cows and heifers that will soon arrive for fall trade, we are offering sixty-five head of pure-bred Holsteins, with the choice of breeding from calves to mature cows, at bargain prices. Many of our heifers are closely related to the world's champion, Segis Fayne Johanna, and a lot of them have been bred to our herd sire, Canary Mercedes Sir Wadnah 145366, whose dam produced 26.90 pounds butter and 541.70 pounds milk in seven days, while his sire's dam holds the world's milk and butter record as a ten-year-old, producing 1,300 pounds butter and nearly 30,000 pounds milk in a year. We have some fine bull calves sired by a son of Rag Apple Korndyke 8th and by a son of Pontiac Korndyke, with record dams. Also a few good grade cows and heifers. Do not delay, but write or wire when we can expect you. Farm located a mile west of town on Sixth Avenue. Phone 688.

T. R. MAURER & CO - - - EMPORIA, KANSAS

PECK'S HOLSTEINS We have a choice lot of extra large high-grade Holsteins, including fresh cows, heavy springing cows and heifers, and young calves. Registered bulls. Come and see our herd. We meet you at train and guarantee satisfaction.
M. E. PECK & SON, SALINA, KANSAS

HOLSTEINS AND GUERNSEYS

Purebred Registered
HOLSTEIN CATTLE

Prof. Carlyle of the Wisconsin Experiment Station asserts that "It will be readily seen that the Holstein cow has the ability to digest coarser feeds and work them over to a better advantage than Jerseys and Guernseys and this is a strong point, in which I contend that the Holstein has a great advantage over any of our smaller breeds, and it is a point which is going to appeal to the farmer in the future far more than it has in the past." There's big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklets.
The Holstein-Friesian Association of America
F. L. Houghton, Sec'y. Box 114, Brattleboro, Vt.

Breeders' Directory

RED POLLED CATTLE.
Mablon Greenmiller, Pomona, Kansas.
JERSEY CATTLE.
J. B. Porter & Son, Mayetta, Kan.
DOBSET HORN SHEEP
H. C. LaTourrette, Route 2, Oberlin, Kan.

HORSES AND MULES.

PERCHERONS, BELGIANS, SHIRES.
Too stallions ready for heavy stand; also yearlings and two. Young fillies, also mares with colts by side and bred again. All registered. One hundred individuals of first rank for sale.
FRED CHANDLER, R. 7, Chariton, Iowa
Just above Kansas City

Born Full of Percheron Stallions and Mares.
Twenty-five mature and aged jacks. Priced to sell. AL. E. SMITH, Lawrence, Kansas.

Choice young Belgian and English Shire Stallions, also mares, Percheron and Coach stallions. Many first prizes. Long time 6% notes. Illinois Horse Co., Good Block, Des Moines, Iowa.

SHORTHORN CATTLE.

Sycamore Springs Shorthorns

Master of Dale by the great Avondale heads herd. A few young Scotch bulls and bred heifers for sale.

M. M. HILL - LAFONTAINE, KANSAS

Sunflower Herd of Shorthorns

A few good cows and heifers for sale, also choice bull calves. Come and see my herd.
A. L. HARRIS - OSAGE CITY, KANSAS

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man who desires to raise hogs for the market. It describes the various classes and grades which are standard at the various big markets and explains the types which the packers are most anxious to get and for which they will pay the highest prices. The various cuts and the dressing percentages from the different grades are described and their bearing on the market values shown. The booklet is in no sense aimed to induce the farmers to turn toward certain breeds of swine, the intent being merely to acquaint the hog raisers with the needs of the pork packer. The losses borne by farmers as the result of disease among the droves is dwelt upon and advice is given on how to minimize this loss. A chapter is devoted to the matter of government inspection and another to the interesting by-products phase of the industry.

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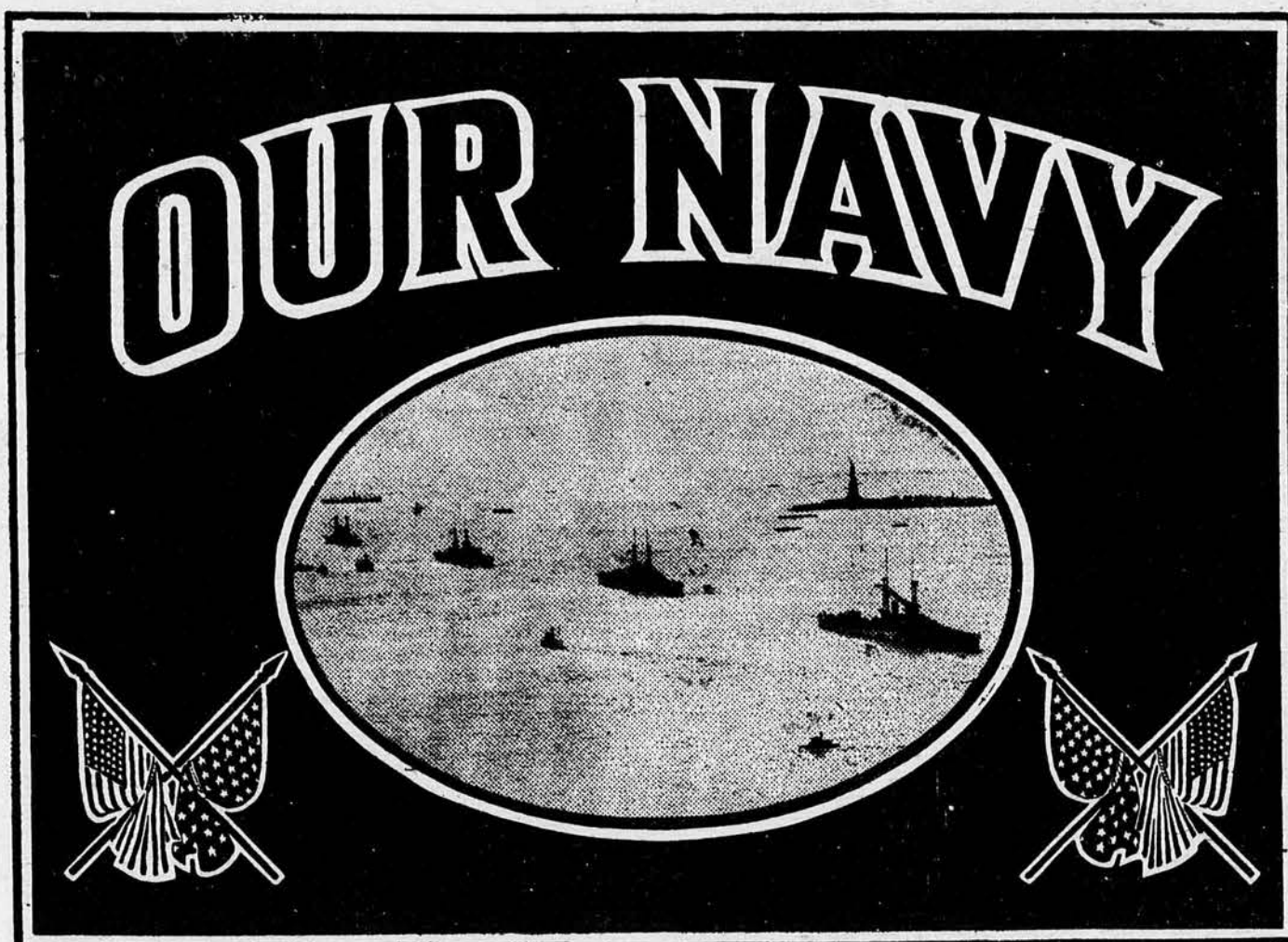
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