

KANSAS FARMER

For the improvement  of the Farm and Home

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A WRONG-DOER is often he who has left something undone. The farmer is more dependent upon his hired help than is the manufacturer or merchant, because his harvest is a crisis; and upon his treatment and example will depend the loyalty of the men more than upon the size of the pay check.

When the hired man comes to dinner with unclean boots and sweaty clothes; when he washes in the horse trough and hates to break in a clean towel; when he eats with his knife and gulps his coffee with a noise like the exhaust of a bath tub, the blame may rest with master as well as man.

When Moses put his ban on pork he had no hogs to sell. No great man is great all the time, but there is a level of civilization which the master should have that the man may acquire.

A steady job is the great civilizer, but precept and example count.

—I. D. G.



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in the Hired Man's Work and Loyalty*

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Ask your dealer for Barnyard shoes. If he has none in stock write us for trial bottle non-rotting shoe preparation, giving dealer's name. It will benefit any shoe but is made especially for Barnyard shoes.
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FARM AUTO

For the Farm Auto Owner
Inquiries and Suggestions Solicited

"Horse, Truck, and Tractor."

This is the title of a new book written particularly for horse owners, though all farmers will find it interesting if not useful. The book presents some startling facts in regard to the horse industry and the comparative expense of horse-farming as compared to the new motor farming. L. W. Ellis, formerly of the Federal Department of Agriculture, is one of the authors. The book sells at \$1.50 per copy net, and may be had by addressing the publisher, F. G. Browne, Transportation Building, Chicago.

New Auto License Law.

H. M. K., Douglas County, asks how he will go about getting a state automobile license and tag.

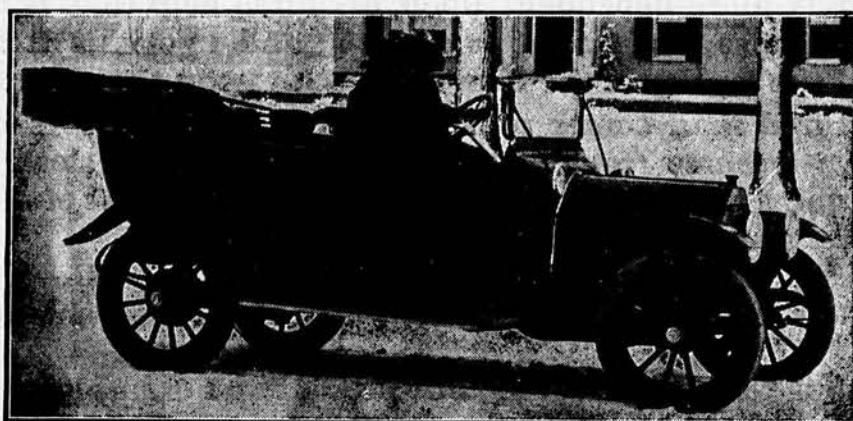
It will not be necessary for owners of automobiles or motorcycles to go to the county clerk to get tags and state licenses. Charles Sessions, secretary of state, is sending blank applications to every motor car dealer and garage in the state, both in the county seats and

standardized in manufacture and built in large enough quantities to guarantee the minimum cost for such quality.

Buy a car, then, which is built by a strong company, backed by ample capital and having a large and thoroughly equipped factory.

Such a company cannot afford to jeopardize its investment—usually of five or six million dollars—by selling you a mistake or an experiment. The future success, the permanence of the company, depends on satisfied users. Such a company is building for the future, else it would not build up a great factory and made a tremendously large investment. Buy your car of such a permanently established manufacturer.

And finally, do not buy even this car until you have looked up its record with the people who drive it. See the owners in your own vicinity. Find out if they are satisfied. Then look up the experience of users elsewhere. Ask the people who have driven cars of this make for four or five years. Find out if these cars, which have seen several seasons' use and tens of thousands of



SELF-STARTER MAKES WOMAN MOTORIST INDEPENDENT.

in the towns away from the county seats. Any motor car owner can get the blanks free and make his application.

This blank, when properly filled out, is to be sent to the county treasurer, not the county clerk or the secretary of state. With it there must be a check for \$5 for a motor car and \$2 for a motorcycle. The county treasurer will send the owner a receipt for his money and the secretary of state the application for the motor car license and number plate. When the application reaches Topeka a license is made out, corresponding to the car number allotted to it, and a permanent record of the car and its owner made. The license and number plate will be mailed at the same time and direct to the owner of the car.

The motor car and motorcycle owner should not want to forget one important provision of the law. The license issued by the state in connection with the car number tag must be carried with the car and by the driver. A man cannot have a license with one number and drive a car with another number. Any policeman or constable may arrest him for doing this. Any law officer has authority to stop the car and demand the license and compare the license with the car number any time he desires, so that the license must be kept handy at all times.

How to Choose Automobile.

Here are a few simple rules, backed by real experience, for use in selecting a motor car. Never buy a cheap car. Cheap does not necessarily mean low in price. You cannot buy a well tailored all wool suit of clothes as cheaply as you can get a ready made semi-wool suit. The same rule applies to motor cars. A really high quality car costs a few hundred dollars more than a cheap car, but the difference in value is much greater than the difference in price. That few hundred dollars extra, spread over a large production, enables the manufacturer of the higher priced car to use materials and refinements which are impossible at the lower price. Our advice is to pay the difference and get a car which you know is right.

On the other hand, do not go to the other extreme. Do not pay a lot of money for superficial luxuries. A few cars offer the maximum motor car value,

miles of driving, are still giving satisfaction.

When you have found the car that answers these requirements, you may make an investment secure in the thought that you are not buying costly automobile experience. Such a car is worth the price asked, and you may be sure it is never sold at a cut price. Such a car will be a good car, even better relatively after four or five or even more years of use than it is when you buy it.

Gasoline Economy by Manufacturer and Driver.

Gasoline is retailing now at a price per gallon about 10 cents higher than before the automobile made such a demand upon the supply. This advanced price, however, can be offset by care on the part of the driver, and is being offset by the manufacturers of automobiles. On this latter point Clement Studebaker, Jr., of the Studebaker Corporation, says:

"As a matter of fact, we have all wasted gasoline; it has been so cheap. A little economy will hurt none of us."

"Automobile manufacturers have built wasteful cars—cars with motors much larger than necessity demanded; cars that lacked efficiency. But the manufacturer is seeing the light. The recent New York show emphasized a new tendency—a tendency toward motors that yield more in miles per gallon. But these cars will fail to save gasoline unless their owners do their part."

"Just as a wasteful car raises the cost of gasoline, so every motorist who fails to make his car efficient, makes fuel cost more. Owners of automobiles owe it to each other to start a united effort, keeping track of gallon-miles, watching carburetion, learning the art of controlling a car more by the clutch and less by the brakes. A campaign along this line will save enough gasoline to more than balance the recent increase in cost."

"Our office files contain hundreds of letters from tourists whose cars have averaged from 15 to 25 miles per gallon on ordinary country roads, and a car should yield at least 10 miles a gallon in city traffic where there are many more starts and stops. If motorists generally would regard these averages as standard, and would strive to exceed them, the condition would be immediately relieved."

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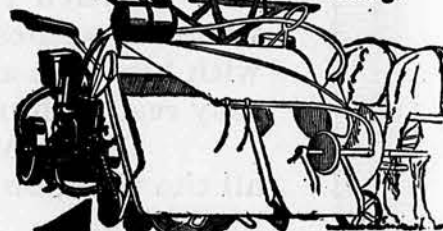
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KANSAS FARMER aims to publish only the advertisements of reliable persons or firms, and we guarantee our subscribers against loss due to fraudulent misrepresentation in any advertisement appearing in this issue, provided, that mention was made of KANSAS FARMER when ordering. We do not, however, undertake to settle minor claims or disputes between a subscriber and advertiser, or be responsible in case of bankruptcy of advertiser after advertisement appears. Claims must be made within thirty days.



OPPORTUNITY COURTS EMBRACE.

Not long since the editor was talking with two gentlemen—live wires—from Goodland, Kansas. Be it remembered that Goodland is in Sherman County, which is in Northwest Kansas, on the west line of the state and but one county from the north line. These gentlemen remarked that for several months scarcely a week had passed but that two or three carloads of dairy-bred stock had passed through Goodland on the way to Utah.

We have known that Utah was importing dairy-bred animals from the dairy sections of the East by the thousands. The Utah farmers are realizing the necessity of dairying. They have the same sort of market for their dairy products as have Kansans. The Utah farmer is an irrigation farmer and alfalfa is his big crop. He has found that he cannot grow and market alfalfa hay, profitably. He must feed it, and he is feeding it to dairy cows.

The two gentlemen in question were deploring the fact that the farmers of Northwest Kansas did not see their way clear to use some of the same kind of cattle. It was the contention of these men that their county grows the feed necessary to properly nourish the dairy cow, and that such feed is much more certain of growth than are grain crops, and that by the use of the silo it is thoroughly practicable to carry feed over from year to year and so with an absolute certainty feed the cows.

It is almost unnecessary to remark that these were business men of Goodland. They were thoroughly conversant with conditions in their county. The only trouble is that the merchant of the western towns knows the things for which his county and locality is adapted better than the farmers of the same county seem to know them. The merchant as a rule does know the conditions, and is more far-seeing than is the western farmer. This, because the vision of the merchant is broader. He gets farther away from home more frequently and so sees and learns what other people are doing.

The western farmer is not to be blamed for the view he takes. Perhaps he was induced to buy his land from a man who coached him on the growing of wheat and corn and the adaptability of his land thereto. The training of such farmer, if he came from Illinois or Missouri or Iowa, had in all probability been along the same line. Had he bought his land and located in the West with a thorough understanding of the situation, he could have engaged in live stock farming as easily as in crop farming. Having engaged in the latter and not having been successful, his resources are depleted and he is not now in position financially to do the thing he knows as most necessary and most likely to insure his success.

There should be some way by which the business interests of the western towns could be closely and effectively associated with the interests of the country. The best interest and in fact the prosperity of the towns is inseparable from that of the country. Bankers, merchants, doctors and lawyers should in some way or other be able to demonstrate to the farmers of their community the correctness of the ideas they advocate. We have in mind several plans by which this may be done. However, as a rule, the townsman is long on advice and short when it comes to a practical means of putting his ideas into practice. In the meantime the western farmer must help himself to the greatest extent possible, and a good way to begin is by getting around him eight or ten cows, growing the feed for these, milking the cows, selling the cream, taking care of the calves, and fattening such hogs as kafir, milo and barley grown on the farm will permit.

While we are talking about the shipment of dairy cattle clear across the state of Kansas, on the way from Wisconsin to Utah, why is it that Kansas farmers could not reap the benefit of Utah's purchase by breeding these cat-

tle? The dairy cow not only pays her own way and yields a profit, but she produces a calf which if from a good cow and from a good sire, the heifers of which will sell as milkers for more money than steer calves at any age in any condition. This breeding of dairy animals and the growing of the same to milk producing age, requires comparatively little grain. Kansas could as well as not dispose of several million dollars' worth of dairy cattle a year and western Kansas could get her share thereof.

SOIL BLOWING LAW.

The commissioners of Pawnee County have recently been called upon to prevent the drifting of soil from a certain piece of land to protect the growing crops of an adjoining farmer. It is believed that this is the first call on commissioners to enforce the new law empowering commissioners of counties under ten thousand population to devise ways and means to prevent the drifting of soil and the expense of which may be taxed against the owners of land whose soil is drifting. This instance will give the commissioners of Pawnee an opportunity to show what they know about agricultural methods. The southwest corner of Pawnee is in the district of Demonstration Agent Thompson. Thompson can give the Pawnee County commissioners the necessary information as to how to proceed and such opportunity would enable the farmers of Pawnee to know one of the advantages of the competent demonstration agent. We hope that farmers who suffer from the blowing of adjoining lands will avail themselves of the new law.

In our judgment, an enforcement of the law will avail more in bringing about a method of farming that will conserve the soil, and at the same time increase the prosperity of the western farmer, than any other one thing now at our command. The methods for preventing the blowing of soil have been pretty well understood for years, and the plans submitted to the commissioners in their enforcement of the law will not be new. The enforcement of the anti-blowing law will ultimately work a radical change in the agriculture of those districts in which there is a tendency of the soil to blow, and the quicker this change is brought about the better.

The soil surveys for Reno and Shawnee counties, this state, have been completed. Mention of these surveys has several times been made in KANSAS FARMER. The maps and accompanying explanatory matter for the two counties are now available. Address Bureau of Soils, U. S. Department of Agriculture. Surveys of several other Kansas counties were undertaken last year and were partially completed. It is our understanding that the survey work will not be continued this year, and the incomplete work will not be finished, because the legislature at its last session failed to appropriate money for this purpose. Be it understood that the expense of the survey was being borne by the Federal Department of Agriculture in co-operation with the Kansas Agricultural College and Kansas Experiment Station. At some future date in KANSAS FARMER sufficient attention will be given the completed survey of the two counties named above to show the practical value of such work.

DEFINITE UTTERANCE.

President Wilson's reference to banking and currency reform in his first message is the most important utterance yet made on the subject. Its significance is practical and promising. It is, he said, a reform "which should press close upon the heels of tariff changes, if not accompany them."

This is the first promise of definite action—of serious effort to secure legislation which means more when reduced to terms of business solidity and industrial stability than tariff revision or trust destruction or regulation. If the proposed law is well devised it will be

more important to wage earner and farmer than to banker and capitalist. It will free business from the menace of depression or panic created by an inadequate currency system. It will permit prosperity to be real and not a means whereby it destroys itself. It will remove the monetary system from the list of contributing causes to business difficulties. There may be business reactions; there will be fluctuations in trade; there will be lean years and fat years, but there will not be a constant fear that business reactions, or industrial crises, will upset the banks and add financial disaster to business difficulties. A sound banking system will stand as a bulwark against distress and an aid against depression. Banking reform cannot come too soon.

Fraudulent health certificates covering shipments of cattle from Illinois and New York have recently given the Nebraska State Veterinarian much trouble, and the innocent purchasers of such cattle have suffered much inconvenience and financial loss. The animals shipped into the state were accompanied by certificates purporting to have been the result of the tuberculin test given such animals and showing that the animals were free from tuberculosis. It was later discovered that many of the animals were affected with tuberculosis and the certificates fraudulent and the entire shipments were placed under quarantine and the tuberculin test applied. These occurrences should have the effect of causing all Kansans who purchase cattle outside the state to examine carefully their purchases and be sure that the animals are free from tuberculosis before buying. State veterinarians can well afford to give this matter their attention. Kansas purchasers, whether dealers or farmers, cannot afford to take chances on the purchase of tubercular-infected animals. To be sure, the disposition is to ship infected animals into states where examination is lax or ineffective. So to do, however, is a crime and robbery because the money paid for a tubercular animal is lost and the danger of infecting whole herds is an important consideration. The tuberculin test is a reliable test and by its proper use tuberculosis in cattle can be detected almost to a certainty.

For some months the counties of Allen and Harvey have been organized for county farm demonstration agents. Not until last week, however, were agents secured. Allen County will have the services of W. E. Watkins, a graduate of the Agricultural College in 1906, and who has had wide experience in dairying and general farming in Harper County, this state, and in Colorado. During the last year he has been doing demonstration work for the Department of Entomology of the Agricultural College of Colorado. His headquarters will be at Iola. Harvey County has secured the services of F. P. Lane, who has been an instructor in the Agricultural College of Oklahoma. His headquarters will be at Newton. Mr. Lane was reared on a farm in Coffey County. He is a graduate of the Kansas State Normal School and of the agricultural course in the Oklahoma Agricultural College.

As a result of the existence of glanders in several sections of Kansas, Live Stock Commissioner Graybill has announced that all horses brought into Kansas must be free from the disease before they cross the state line. This ruling applies to every horse imported into Kansas for private use or for sale. To such horses before entering the state, the Mallein test must be applied and a certificate of freedom from glanders must accompany the animal. This order was issued because in tracing the source of the numerous cases of glanders reported in Kansas it was shown that the disease was brought to Kansas from other states. The State Live Stock Department is to be commended for its order as above.

CHINCH BUG SITUATION.

By all the rules of the game, Kansas farmers can look for great damage from chinch bugs this season. Last year the bugs were plentiful and did much damage, it being estimated that the damage was at least 17 million dollars. No one can tell what the damage was, but it is certain that it was a plenty. At least 90 per cent of these bugs remained alive during the winter and these assure an abundant bug population to perpetuate the ravages with increased vigor on this year's growing crop.

Several methods may be used successfully to arrest their migration. These should be put into force before the early crops have matured. After the bugs have once entered the small grain fields there is no way to prevent injury, but it is entirely possible to keep them from passing into the corn, kafir, and sorghum.

The dust barrier and the road-oil barrier are methods commonly used to destroy the bugs. The first is useful in dry weather and the latter when the soil is wet. A dust barrier is made by plowing a strip of ground about ten feet wide between the infested and the non-infested fields and then working this strip into a fine dust. Two deep parallel furrows are made by dragging with a double trough. A single-furrow barrier may be made by listing a deep furrow and then dragging with a heavy log. The bugs fall into these furrows when they pass from one field to another and may be destroyed by a gasoline torch or by dragging a log through the furrows. The torch is more effective.

The road-oil barrier is constructed by plowing a sharp back furrow between the fields and working up a ridge on this by dragging a trough over it. In the bottom of the trough a pole is placed which will leave a groove on top of the compact ridge. No. 7 road oil is placed in this groove in sufficient quantity to make a line one-half to three-fourths of an inch wide. After the bugs have fallen into the groove they may be destroyed by the gasoline torch. Coal tar can be substituted for road oil, but it is more expensive and must be renewed more frequently. The road-oil barrier is for use in wet weather when the dust barrier is useless. It should be placed between the dust barrier and the non-infested fields.

The migration of chinch bugs from wheat to corn fields usually last from one to two weeks, and during this time men should be stationed with torches along the barriers at the time when the migration is heaviest. One man can tend to one-half to three-fourths of a mile barrier. The bugs usually begin to cross about 4 o'clock in the afternoon and reach the maximum between 5 and 6 o'clock. On cool days the movement begins earlier. A few bugs are sure to get across the barrier and infest the adjacent fields. These may be destroyed by a soap spray of eight pounds of laundry soap dissolved in 50 gallons of water, or by flaming the infested plants with the gasoline torch. These methods have been effective on the college farm.

It is time for KANSAS FARMER readers to begin thinking about these combative measures. In our issue of June 29, 1912, was fully illustrated and described the construction of the several barriers. These illustrations and descriptions will be repeated in an early forthcoming issue. Be it understood that the bugs are now feeding in wheat, rye and oats and will not begin movement into corn, kafir and cane fields until the first named crops begin to ripen and are cut. There is plenty of time in which to get ready to meet the bugs in their travels, but you must be ready.

Five hundred dollars for a cow means that the animal's merit is considered. This was the price recently paid for Miss You, one of four Hereford cows sold by the animal husbandry department of the Kansas Agricultural College. Lady Brown, of the same breed, sold for \$400. Two other Hereford cows from the college herd brought \$372.50 each.

CHINCH BUG CONTROL

Outlook Indicates Serious Damage—Dean and McCullough Give Control Methods



FIRST PICTURE TO THE LEFT SHOWS METHOD OF MAKING SINGLE-FURROW BARRIER.—SECOND, FLAMING SINGLE-FURROW BARRIER.—THIRD, FLAMING DOUBLE-FURROW BARRIER.—FOURTH, MAKING A DOUBLE-FURROW BARRIER.

ALL conditions make it almost certain that the farmers of Kansas are facing the most serious outbreak of chinch bugs ever known in the history of the state. The number of bugs that went into winter quarters last fall was much larger than that of the previous fall. The dry, mild winter enabled fully 90 per cent of them to pass through the winter successfully, and now since enormous numbers have made their way into fields of wheat, oats and rye, it renders it almost certain that the brood of young bugs, which will develop in these fields, will assume very dangerous proportions.

After harvesting time these bugs will be approaching maturity, and since they will be deprived of food by the ripening of the wheat, oats, and rye, they will migrate to the nearest fields that may afford them food. Any field of corn or other grain adjacent to an infested wheat or oats field will be attacked at harvest time unless a prompt and vigorous effort is made to put in operation the methods which are effective in keep-

allowing them to mature in the wheat fields before moving to corn. In such cases harvest should be hastened and the field should be thoroughly disked to destroy all food for the bugs, and thus hasten the migration.

THE DUST BARRIER.

There are two types of dust barriers, namely, the double furrow and the single furrow. The first is made by plowing a strip about 10 feet wide between the infested and non-infested fields and then reducing the soil to a fine dust by harrowing and dragging with a brush drag. Two troughs about four feet long are made of heavy lumber and held about a foot apart by a couple of 2 x 4-inch pieces nailed firmly across the top. This double trough, heavily weighted down, is dragged back and forth on the plowed strip until two deep parallel furrows are formed, the sides and bottoms of which are covered with a deep, fine dust.

The single-furrow barrier is made by plowing a deep lister furrow between the infested fields and the non-infested fields. The sides and bottoms of this furrow are reduced to a deep, fine dust by dragging back and forth a heavy log wrapped with a log chain.

The double-furrow barrier requires a little more time to construct, but demands less attention while the bugs are moving. Either type of barrier can be renewed readily by redragging.

After the bugs are caught in these furrows they may be destroyed by either burning with a gasoline torch, crushing with the drags, or by trapping in post holes. The most successful of these methods is to destroy them with a gasoline torch. This is done by flaming the sides and bottoms of the furrows at regular intervals with a strong gasoline torch. Although many bugs may be destroyed by continuous dragging while they are moving, this method has not been found successful, as many bugs are forced out of the furrow. The post-hole method has been found the least satisfactory of all. Holes are dug at intervals of 10 feet in the bottoms of the furrows, and the bugs that are caught in these holes are destroyed by pouring kerosene over them. These holes have to be rebored after each dragging of the furrow, and the kerosene makes it hard to work up a dust.

The gasoline blast-torch method has proved itself to be admirably adapted to our needs, for not only are we able to destroy the bugs by simply passing the flame along the furrow, but the furrows can be repaired as often as necessary by dragging the log or trough through them. The most efficient torch that we have used is known as the "Locust torch," and is manufactured by the Turner Brass Works of Sycamore, Ill.

ROAD-OIL BARRIER.

The efficiency of the road-oil barrier was first demonstrated by Prof. S. A. Forbes of Illinois. In giving his results he says: "The most satisfactory results, considering both cost and protection, have been obtained from the line made of No. 7 road oil. This material, when properly applied, caught all the crawling bugs and was easy to maintain. It has been fully demonstrated that, by means of the road-oil line, with traps, and the soap spray, chinch bugs from whatever source can be rendered harmless." In his summary Professor Forbes says: "Its (the chinch bug's) escape from infested fields to other crops can best be prevented by sur-

rounding each field with a line of thick, viscid road oil (No. 7 of the Standard Oil Company), with post holes beside it some 30 feet apart. Such a line can be made and kept effective long enough to catch virtually all the bugs in a field at a minimum expense of 35 cents a mile per day."

Road oil No. 7 is manufactured and sold by the Standard Oil Company at \$3.50 a barrel, and can be obtained from the Standard Oil refinery at Whiting, Ind. Professor Forbes found it very advantageous for commercial clubs, local dealers, or distributing agents to handle the oil in carload lots, thus saving much on freight rates and at the same time making sure of having a supply when it is needed.

The road-oil barrier is constructed by plowing a sharp backfurrow between the infested fields and the non-infested ones. Two 2-inch planks, about 8 feet long and 12 and 14 inches wide, are nailed together, hog-trough fashion. The front end of the trough is rounded off like a sled runner, and in order that it may slip well the inside of the trough should be lined with galvanized iron. A smooth pole, about 2½ inches in diameter, is nailed into the bottom in such manner that it extends from the front end to a point eight inches behind the rear of the trough. A narrow, rectangular platform, running the length of the trough and extending 10 inches beyond the rear end, is then constructed on the ridge of the now inverted trough. This platform is intended for carrying the driver and any additional weight that is needed. By means of a strong wire or chain, an attachment is made to the clevis and the inverted trough is ready for work.

This trough is dragged up and down the backfurrow until a compact ridge is formed with a groove along the top of it. The oil is poured along this groove from a sprinkling can, the nozzle of which has been removed, in a stream of sufficient size to make a line one-half to three-fourths of an inch in width.

The bugs are destroyed by flaming along the oil line with the gasoline torch, the same as in the dust barrier. They may also be destroyed by digging post holes at the bottom of the slope on the bug-infested side.

Where it is not possible to obtain road oil, coal tar can be substituted. The high price and scarcity of tar, and the fact that it has to be renewed more frequently, makes it rather objectionable for barriers.

OPERATION OF BARRIERS.

The farmer should keep in touch with what the bugs are doing in the small-grain fields, especially about harvest time, and should have his barrier materials ready for use when the time comes. A small strip between the infested and non-infested fields should be kept free from weeds so that when the barriers are constructed the ground will break up nicely and be easily pulverized. It is necessary for the farmer to plan to use both types of barriers. At the first signs of migration the dust barrier should be constructed, if the weather is dry, and the ridge for the road-oil barrier should be prepared. The road-oil barrier should be placed between the dust barrier and the field to be protected, but the oil should not be placed on the barrier until, owing to wet weather, it is impossible to hold the bugs in the dust barrier.

Harvest should start as early as possible so that the bugs will have to pass

without delay. During the migration of the bugs there must be one person for each one-half to three-fourths of a mile of barrier in the field constantly burning or otherwise destroying the bugs that are caught in the barriers. Ordinarily the migration of chinch bugs from wheat to corn fields covers a period of from one to two weeks, depending on the amount of food left in the wheat field after harvest. We have found in our barrier work that for the most part the bugs move during the afternoon. Generally they begin passing about 4:00 P. M., reach the maximum between 5:00 and 5:30 P. M., and cease entirely about 7:00 P. M. During the entire period of migration in 1912 it was necessary to attend the barriers on an average of about four hours per day. On one or two cool days the bugs began migrating about 9:00 A. M., but the real migration did not begin until afternoon.

DESTROYING BUGS THAT CROSS BARRIERS.

It is impossible to keep all the bugs from getting over the barriers, and these



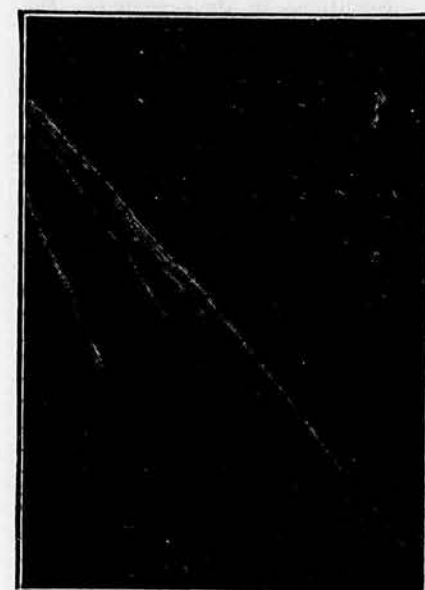
TROUGH OR BOAT FOR SHAPING BACK FURROW.

ing them out. To explain the measures by which this may be effectively accomplished is the object of this article.

SUMMER MEASURES OF CONTROL.

After the bugs leave their winter quarters and become established in the small-grain fields, there is no method of preventing injury to these crops, but by diligent work the corn, kafir, and sorghum crops may be saved from any injury. The problem of summer destruction involves not only the necessity of getting the bugs to pass from the small grains while yet immature, but the necessity of maintaining efficient dust barriers during dry weather or road-oil barriers during wet weather, and the destruction of all bugs that succeed in crossing the barrier and congregate on the first few rows of corn.

Ordinarily the small-grain fields ripen before the bugs are yet mature and they are thus forced to migrate on foot to other fields. Some years, however, the wheat is so delayed in ripening that the bugs are mostly mature before harvest, and in such cases they migrate on the wing and nothing can be done to destroy them. At times, the wheat is so thin on the ground that a growth of grass and weeds furnishes the chinch bugs with food after the wheat ripens, thus



BACK FURROW READY FOR TAR OR OIL—NO POST HOLES DUG.

begin work on the first rows of corn. In our work during the last two years we have found it possible and practical to destroy these bugs by spraying with a soap spray or by flaming the corn with the gasoline torch.

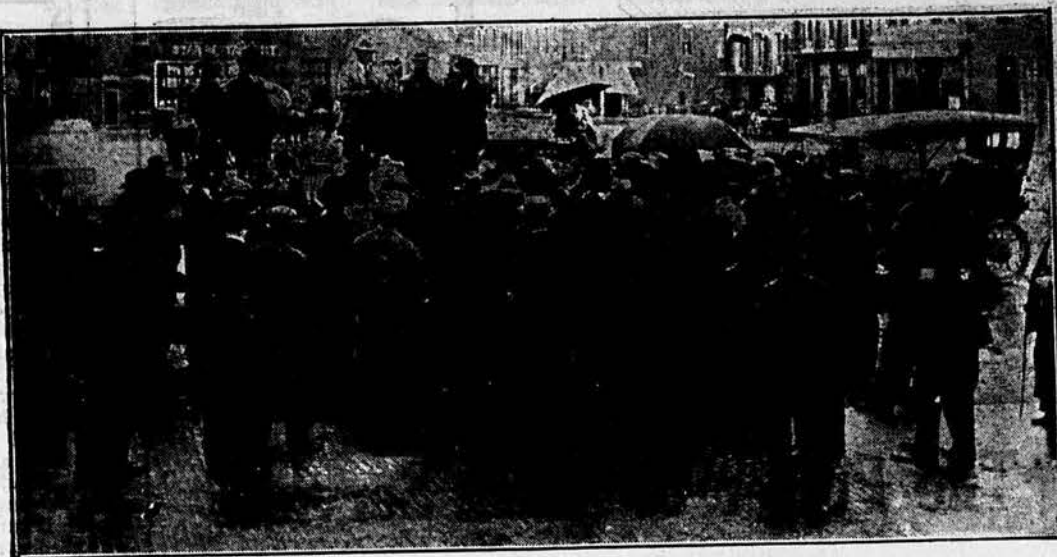
The soap spray is made by dissolving eight pounds of laundry soap in 50 gallons of water, and may be applied with any form of sprayer. In our work we have found the small knapsack sprayer very satisfactory for spraying corn. Since this spray kills the bugs only when it comes in actual contact with them, it must be applied in such a manner as to thoroughly wet the bugs. To do this it is necessary to fill the pockets formed by the leaves and the stem by drenching the plant, but care should be taken to keep the liquid out of the growing curl. The bugs must be destroyed shortly after they cross the barrier or they will soon distribute themselves over the field.

Where it is impossible to spray, the flaming of the infested rows with the gasoline torch is recommended. Careful tests have shown that practically all the bugs on the corn plants can be destroyed by flaming the plants, but the corn is badly injured by this treatment.

CHOLERA PREVENTION



AT THE LEFT, PERFORMING VACCINATION—AT THE RIGHT, FARMERS WITNESSING DEMONSTRATION.



Forewarned is to Be Forearmed—Ross's Demonstration and Lecture Timely

THERE is no use wasting time repeating statistics showing the great losses that occur from this disease every year. Every farmer knows that it is one of the most destructive diseases and one by which he loses more than by almost any other. What we are interested in is eradicating this disease, and in order to understand how to do this we should know something of its nature.

Hog cholera is a germ disease and the germ can easily be carried from one place to another. It is carried by dogs and crows, by the farmer himself passing from one farm to another, and can even be carried by the wind on straw or on rubbish. In order to prevent this spread all the rubbish in the yard should be frequently raked together and burned and the yard disinfected by some strong disinfectant. Strong cresol dip followed by slaked lime is very good for this purpose. The quarters in which the hogs are kept should be sunny and dry and they should have at all times plenty of good pure water. But even where these conditions exist if the germ of hog cholera is introduced the hogs will die of the disease.

Many forms of so-called preventives are on the market and many of them have their merits as a tonic and an appetizer, but none can prevent hog cholera if the hogs are exposed to the disease.

SERUM ONLY KNOWN PREVENTIVE.

The only known way to prevent hog cholera is by the use of serum, and the use of this is no longer in the experimental stage. In the year 1911 there were something over 250,000 hogs vaccinated in Kansas. Of these, 32,000 were reported to the veterinary department. These were vaccinated in three different ways by what is called the serum alone, the simultaneous method, and the double method. In the serum alone method 69 per cent recovered in herds diseased at the time of vaccination. In herds not infected at the time of vaccination, by the use of this method over 99 per cent were saved. By the use of the simultaneous method the percentage saved in herds disinfected and not diseased at the time of vaccinating was over 95 per cent, and where the double method was used 89 per cent of all hogs vaccinated were saved. This was used only in infected herds, while the simultaneous method was used only in healthy herds. Taking all the methods we find that there were 83 per cent of the hogs recovered. Any farmer who has had experience with hog cholera will know that this does not occur ordinarily, but must be due to the methods used to prevent the disease.

SHOULD BE ABLE TO KNOW CHOLERA.

In order to use the serum intelligently the farmer should be able to recognize hog cholera. There are many other ailments resembling hog cholera, but can be easily told from it by a person who knows. Here is where the services of a veterinarian would often save the farmer a great deal of money by informing him as to the nature of the disease with which his herd is afflicted.

A hog suffering with cholera first loses its appetite, refuses to leave his bed, shows an offensive diarrhea, has a wheezy cough, and the eyes are some-

times watery and sometimes stuck together with a gummy substance. But other diseases, as has been said, may show these symptoms. A post mortem examination may reveal the presence or non-presence of cholera which occurs in two forms, the acute and chronic. The acute shows the signs as mentioned above and the animal dies within a short time after the signs of illness appear. In this form we find that parts of the lungs are found solid and dark, or there may be bright spots on the surface. The kidneys also often show dark spots on the surface. In the chronic form, large ulcers are usually found in the inner lining of the large intestines. All these symptoms may not show in each case, but where the spots on the kidneys and the ulcers inside the intestines are present it is almost certain that the hog died from cholera.

VACCINATE BEFORE HOG GETS SICK.

The time to vaccinate, of course, is before the hogs get sick. The serum will save a large percentage of the hogs after they become sick, but if used before will almost certainly save the whole herd. If cholera is present in the neighborhood close at hand, the time for vaccination has arrived, and it should be done as soon as possible. Successful vaccination depends on good serum, healthy hogs, and the proper administration of the serum. The veterinary department at the Agricultural College manufactures this serum and sells it at cost, and uses every known means to produce clean, potent serum. This serum sells at 1½ cents per cubic centimeter. The dose varies with the weight of the hog, from a cubic centimeter per pound for pigs below 20 pounds up to 100 cubic centimeters, which is about the maximum dose. All utensils to be used in vaccinating should be thoroughly disinfected just before using. The hypo-

dermic needle should be boiled 15 minutes. A solution of liquor-kresolis strong enough to make a soapy appearance should be used as a wash for the part of the pig where the needle is inserted. This part should be thoroughly washed with disinfectant and the needle inserted deep within the muscle. Be sure to avoid running the needle into bone or into any fatty part. The serum is then forced into the muscle, and when the needle is withdrawn the part should again be thoroughly washed with a disinfectant.

HOW TO HANDLE A PIG OR HOG.

A pig of light weight may be held clear of the ground by the hind legs by an assistant, with the belly of the pig toward the operator. It is then an easy matter to insert the needle properly in the muscle of the ham. Heavier hogs may be thrown or held by the snout, as for ringing. The needle may be inserted in various other muscles of the body just as satisfactorily as in the ham.

USE OF VIRULENT BLOOD.

Great care should be taken when using the virulent blood, although the same general conditions obtain when using the serum, and the need of greater care is the fact that the smallest drop of the virulent blood contains enough cholera germs to infect the whole premises. Between each insertion of the needle it should be placed in a strong disinfectant. After the vaccination of the herd is completed all virus not used should be burned.

Just preceding the following vaccination the hog should be kept on light diet, the amount of corn fed especially should be cut down in order to prevent as far as possible a feverish condition. The serum itself produces a feverish condition, and every possible precaution should be taken not to augment this.

THE advantages of the county demonstration agent were never more clearly shown than on the occasion of a demonstration by Agent Ross of Leavenworth County, given on the market square in Leavenworth a few weeks ago. At that time he demonstrated to the farmers of that county how to vaccinate hogs against the ravages of cholera. The demonstration, although given in the rain, was witnessed by no less than 200 farmers. The work of vaccinating was so thoroughly explained and demonstrated that it is certain that those witnessing the operation can now successfully perform the vaccination.

This is an illustration of the manner in which a man who gives his whole time to looking after the affairs of a county can prove himself worth much more to the county than he costs. The county having a live, wide-awake farm demonstration agent, is forehanded. It is the county agent's business to think of the things that are to be done—to think of them before necessity and loss make the demands. There is an old saying that "an ounce of prevention is worth a pound of cure." The county farm agent, if he be worthy of his hire, is always ready to give the ounce of prevention. We wish that the saying might be observed literally and to the fullest extent its wisdom justifies.

Leavenworth County, like other counties, has suffered to the amount of thousands of dollars from hog cholera. The pig crop in that county is this year good. The pig is much more cheaply and easily vaccinated than when older. The pig of such weight is usually in good health, too, and at this age vaccination is timely.

The illustration to the left shows Demonstration Agent Ross performing the vaccination. The pig is held by J. H. Roach, Lowmont, a KANSAS FARMER reader, who furnished the pig for the demonstration. The third of the trio is the editor of KANSAS FARMER, who took this opportunity to learn something about the administration of the serum and to get the pictures here shown, and to obtain the lecture given by Mr. Ross and which is reproduced on this page.

The serum alone method is as the name implies, the use of serum only. This produces only temporary immunity and can be used to advantage where a man has a herd which he intends to sell within a short time. But where permanent immunity is desired, one of the other two methods should be used. In the simultaneous method a small amount of cholera blood is injected at the same operation as the injection of the serum, but in a different place. In the double method the serum is injected as in the serum alone method, and 10 to 20 days later the simultaneous method is used. The latter has proven to be the most satisfactory and safest method, although it is more expensive than the others.

Should Be Ten Times Greater.

The Utica Enterprise says the cream output of its town was last week 41 cans and continues that the shipments of cream could easily as not be increased ten times that amount. The Enterprise says:

"There is a whole lot in that item to show where we as a community are missing out on our opportunity, where the locality is failing to realize on its resources, and wherein individually we are letting a nice bit of revenue slip by us that we might as well grasp. The cream production at this time, if the resources of the country were being utilized as they should be and to the best advantage, might as well be ten times that amount, which would have a very noticeable effect on business and would be manifested in the improvement of the country; that is a condition to be worked up to and just a hint at its possibilities and effect on the community. But just as things stand now, this production might as well be doubled and the fact that it isn't indicates that someone is letting something slip by them that they might as well reach out and pull in that would add to the comforts they might enjoy or help build up a bank account. The old cow will do a good deal more for our people, just what people there are here now and situated as they are, than she is now given a chance. She can hardly be called a royal road to wealth or anything of that kind, but her trail leads directly away from penury or want and accumulated and unpaid expense accounts, that lie in wait and pounce upon and devour whatever in the way of profit may come to the man who lets them pile up against him."

Growth of Guernsey Interest.

No better index of the growth of the interest in Guernseys can be had than by a comparison of the number of sales recorded of Guernsey cattle for the last twenty years. During the fiscal year ending April 30, 1913, there was a gain of 164 per cent over five years ago, 390 per cent over ten years ago, and 849 per cent over twenty years ago. In its report of credits for cows producing over 50 pounds of butter fat in 30 days, appears Bernice's Countess, owned by the Kansas Agricultural College, which in the month produced 966.2 pounds of milk and 54.88 pounds of butter fat, with a test of 5.68 per cent.



The Power of Silent Service

If the crowd on the stock exchange kept quiet and let one man talk, that man could be heard in every corner of the room. But the shouting members produce a composite of sound, so that no one trader is understood except by a small group around a particular trading post.

If everyone were able to shout twice as loud, the result would be only a greater noise, and less intelligible.

For communication to be universal there must be silent transmission. In a noisy stock exchange where the voice, unaided, cannot be understood across the room, there are hundreds of telephones which carry speech half way across the continent.

The telephone converts the spoken words into silent electrical impulses.

In a single Bell telephone cable, a hundred conversations can be carried side by side without interference, and then distributed to as many different cities and towns throughout the land. Each conversation is led through a system of wire pathways to its proper destination, and whispers its message into a waiting ear.

Silent transmission and the interconnecting lines of the Bell System are indispensable for universal telephone service.

Without such service, our cities would be slow of speech and the States would be less closely knit together.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

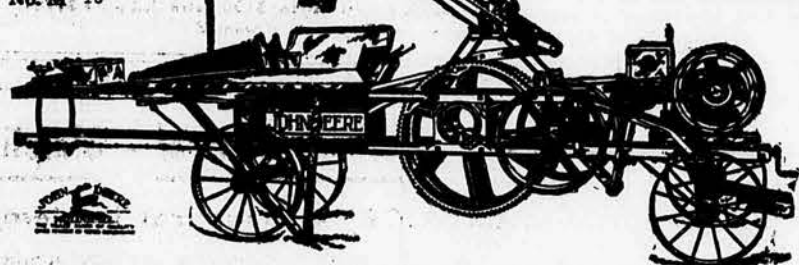
Every Bell Telephone is the Center of the System

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Sulky and Sweeps, all sizes

DAIN STACKERS

In all styles and sizes

The line is complete and is without exception of the well known high-grade John Deere Design and construction.

Attractive folders will be sent free.

Be sure to mention the kind of machine in which you are interested so that we will be sure to send you just what you want.

ECCENTRIC gears give 25 per cent more power on working stroke than is possible on ordinary presses.

Double drive with straight belts eliminates wear on belts, press, and engine bearings.

Plunger head has a prying instead of butting action, applying power to better advantage and relieving press of jar and shock.

No back gears, no fly wheel, no clutch means fewer parts, less friction, less wear and tear, and less repair expense.

Improved block dropper prevents crushing of blocks or breaking feeder head.

Baling case is bridge trussed and will stand enormous strains.

High grade steel frame is continuous throughout, no joints or splices. Made of angle steel with heavy plates.

Press mounted on substantial all-steel truck.

The John Deere Motor Press is a complete, self-contained power baling outfit, always ready to move and quickly set for work. Spend your time in baling—not in moving and setting.

JOHN DEERE PLOW CO., Moline, Ill.

THE FARM



Bermuda Survives Overflow.

Subscriber E. E. W., Lyon County, has a piece of creek bottom he desires to set to Bermuda. The land overflows occasionally, and he wants to know if Bermuda will stand an occasional flooding.

To this query F. A. Mitchell, the Bermuda man of Oklahoma, writes that for overflow land Bermuda has no equal. It will live under water for two weeks. If covered by sediment 18 inches deep it will grow through, and thus continue to lift its head above deposit after deposit until it grows luxuriantly upon made land above the overflow mark.

Mr. Mitchell says: "We are busy, practical, successful farmers, and write about Bermuda from experience. We will gladly answer all inquiries through the paper. Write to us that we may know what instructions to give."

Several Methods for Destroying Ants.

Subscriber J. S., Brown County, asks for a method of destroying ants.

There are three species of ants, each of which infests houses—the little red ant, the little black ant, and pavement ant. Where the nests can be found in the yard, the ants may be destroyed by pouring boiling water into the nests or by saturating the nests with kerosene, or by making several small holes in the nest with a stick, pouring into each hole an ounce or two of bisulphide of carbon and quickly closing the hole and throwing an old sack or carpet over the nest. The fumes from the bisulphide of carbon thus confined permeate every part of the nest and destroy the ants. When the nests cannot be found, an efficient method for catching the ants in the house or pantry consists in placing small sponges moistened with sweetened water where they will be found by the ants, and at intervals immersing the sponges in hot water, killing the insects.

Feterita and Milo.

Subscriber E. E. W., Lyon County, writes: "If you have a closer reader of KANSAS FARMER than myself, he is a good one. For 25 years or more I have read your paper, and for the life of me I can not see how any one can find fault with its teachings. I want to try a couple of acres of feterita on an old clover field and feed lot which has been heavily manured. Will feterita and milo grow in this climate on this land?"

Feterita and milo will grow in Lyon County, and should do extremely well on this field. We assume that the heavy coating of manure is well rotted. If so, deep plowing should prepare the field. If the manure is not well rotted, the field should be plowed deep just the same, but unless the season should be unusually wet the field will dry out rapidly and the crop so suffer. We have seen the time in Kansas when some farmers thought the plowing under of manure was damaging to crops, and this is so when a thick coating of unrotted manure is plowed under and a crop is immediately planted.

Chronically Inclined to Colic.

Subscriber A. J. S., Johnson County, writes: "I have a mare which seems to have chronic colic or indigestion. Every time I turn her on pasture she gets what I think is the colic. The mare and colt are both well and hearty. This is the second season I have had this experience with her. In the daytime I put her on pasture and at night give her dry feed. When she is fed exclusively on dry feed she does not get colicky. What can I do for her?"

The above inquiry was referred to George F. Babb, D. V. S., Topeka, who writes: "From the information you give I am led to conclude that your pasture is abundant and your mare overeats. When animals have been dry fed for a time they should be given pasturage gradually, provided, of course, the pasture is luxuriant and a large quantity of grass is easily obtained. We think there is little trouble ordinarily from colic from overeating on pasture in this state for the reason that the pastures are usually used when the grass is short and the animal cannot obtain large quantities. However, when the pasture is abundant the animals should be turned on to the pasture gradually, increasing, of course, to full time. Some animals are susceptible to colic at-

tacks to a greater extent than are others and this seems to be the peculiarity of your mare. We believe if you will follow the above suggestion with reference to gradual pasturage, you will have no more trouble."

Coarse Soil Mulch Essential.

Subscriber A. L. C., Kingman County, writes that he does not believe in the dust mulch in the preservation of soil moisture, his reasons being that as a result of working up a dust mulch on his wheat field last fall the wheat has been badly damaged by blowing and that his neighbors who did not have the surface of their ground in such fine condition now have a much better prospect for a wheat crop. The fact is that we in Kansas have little use for a dust mulch, particularly so in the central and western one-third of the state. The dust mulch is objectionable because it blows early and a wheat field is especially susceptible to damage. The mulch should be coarse and coarse enough to prevent blowing. It is dangerous to prepare a dust mulch on the so-called light soils or such soils as we have in the two sections named above. We suspect that our subscriber prepared his wheat field by continuous harrowing. The drag harrow, if used persistently, will create a dust mulch. The safest method of preparing wheat land and maintaining the surface mulch, is by the use of the risk or surface packer, the latter being better than the disk. These implements will not produce a fine surface. What we should seek is a granular mulch. It is quite out of the question to give a plan for the handling of land and the results of which would be infallible under the varying conditions of soil and climate. The general application of the mulch as a conservator of moisture, is well known. The farmer himself must conclude as to how he can best provide this. The literal following of many of the recommendations made, is responsible for many mistakes. Recommendations, with good judgment in their application, are the essentials to success.

Destroying Melon Insects.

Answering Subscriber E. P., Marshall County, George A. Dean, entomologist of Kansas Agricultural College, writes: "A watermelon, muskmelon, or cucumber patch may look in perfect condition, and yet be harboring the beginning of a serious outbreak of plant lice. During the early spring the lice suck the juices of various weeds, but with the growth of the melons and cucumbers the winged forms make their way to the patches. These winged forms seek the under surfaces of the leaves and there begin to suck sap, and in a very short time to bear living young. Thus, unless the grower is watching his plants closely, the lice may get a start and do much damage before he knows that anything has happened.

"As soon as the injury or the lice are discovered, and that should be shortly after they arrive, the infested plants should be so thoroughly sprayed that every louse will be actually soaked by the spray. Of the many mixtures thoroughly tested by the department of entomology, two have been found very satisfactory. One is composed of eight pounds of common laundry soap dissolved in fifty gallons of water. The other is composed of one part of Black Leaf Forty, a strong tobacco decoction prepared by the Tobacco Products Company of Louisville, Ky., to 500 parts of water, to which soap is added at the rate of four pounds to 50 gallons. These mixtures should be applied by the use of a spraying apparatus, and for patches of a half acre or more, a common knapsack sprayer is best. The extension rod furnished with these sprayers should be replaced by one long enough to reach from the hand to the ground without stooping. The lower end of the extension rod should be turned up at an angle of from 45 to 90 degrees and capped with a fine-holed Vermorel nozzle. With this spraying outfit the spray can be easily and rapidly applied to the under sides of the leaves where the lice are congregated. The treatment must be repeated as often as the lice appear on the plants in sufficient numbers to do serious harm."

MENTION KANSAS FARMER WHEN YOU WRITE.

Mexican Bean for Dry Land.

A New Mexico subscriber asks how the Mexican bean compares in feeding value with cowpeas and soy beans, having reference to the use of the bean as a feed for live stock. The agricultural experiment station of Arizona has given considerable attention to the cultivation of the Mexican bean, also known as frijoles, and our subscriber should obtain Bulletin No. 68, addressing the experiment station at Tucson, Ariz. These beans are grown to a considerable extent in Colorado and New Mexico and are well adapted to dry land conditions. The Kansas Experiment Station reports these beans as being far superior to the ordinary garden varieties growing in the western one-fourth of Kansas, experiments with these beans in this section having been conducted in 1911 and 1912.

C. C. Cunningham, assistant in co-operative experiments of Kansas Agricultural College, writes:

"According to the best information available the comparative feeding value of Mexican beans, cowpeas, and soy beans is as follows:

	Nitrogen, Free	Protein, Extract	Other Extract
Cowpeas	20.80	55.70	1.40
Soy beans	34.00	28.80	16.90
Mexican beans	24.60	56.10	1.11

"The above figures are for the hulled seed. It will be noted that the Mexican beans are rich in protein and compare favorably with cowpeas, but are not equal to soy beans in food nutrient. I have been unable to find data relative to the value of Mexican bean hay for forage. However, I am confident that it is somewhat similar to the straw of the navy beans and other garden varieties.

"Those statements emanating from this station regarding Mexican beans treat the subject from the standpoint of their value in the human dietary and not as a feed for live stock. It seems to me that every farmer in Western Kansas could avail himself of this opportunity to produce enough beans for his own use throughout the year, thus cutting down his grocery bill. Mexican beans are excellent for use on the table, both as string beans and in the dry condition, and for this purpose many prefer them to the ordinary garden varieties.

"I do not have sufficient data to warrant a statement as to the value of Mexican beans as a forage crop. For this purpose I doubt if they will prove to be superior to the cowpea."

Carrying Over Silage.

J. C. B., Jewell County, writes: "I still have half of my silage, and as good grass is now plentiful, I wish to know how I can best keep the remaining silage from spoiling. I will need this along late in the summer when the pastures get dry."

It must indeed be comforting to this subscriber to know that he has in his silo a quantity of succulent and nutritious feed in reserve for the short pasture season. This inquiry illustrates how it is possible to absolutely insure against a feed shortage. If this subscriber had two silos instead of one, he would now have one silo full and which would supply his stock with good feed next fall and winter, even though he did not this year grow an acre of crops for silage. We are confident the time will come when a considerable proportion of the farmers in Kansas will in silos be carrying on hand feed sufficient for one season. The silage situation is much improved in Kansas as a result of recent knowledge to the effect that cane and kafir are to all purposes the equal of corn silage. This makes feed insurance doubly certain, and we in Kansas find ourselves more favored than we thought, or in fact had dreamed of, in the final solution of the feed situation.

To keep the silage the subscriber now has in best condition for feeding in July and August when pastures are short and dry, he should level off and thoroughly tramp the surface. After a few days the silage will begin to mold on the surface, and at the end of a week or ten days the surface will have become sealed. This will result in the loss of not to exceed eight to ten inches of the top. To be sure, this in a large silo is a considerable loss, but in many sections this loss is not regarded as consequential. It is possible to in a measure overcome this loss by placing over the top of the silage a covering of tar paper weighted down with boards, thus excluding the air. Another plan is that of placing on top of the silage a layer of 12 to 15 inches of wet straw thoroughly tramped and which straw will settle and mold and so exclude the air.

The principle of preventing loss to the surface of silage is that of excluding the air, and the ingenuity of the silo user

and the material at hand for accomplishing this purpose might result in the successful use of a half dozen or more arrangements not here mentioned.

Spraying to Destroy Dandelions.

T. E. L., Dickinson County, says he has somewhere read of an effective spray for the destruction of dandelions and asks if we can give him the formula for the spraying mixture.

The New York station reports that it has had good success in destroying dandelions with a mixture made by dissolving two pounds of copperas in a gallon of water. The spray must be fine, in fact a mist, and should be applied four or five days after the grass has been cut and at a time when there is no likelihood of rain for at least twenty-four hours. The spray should be repeated five or six times during the season. The spray does not injure the grass although it does slightly change its color. The trouble we see in the use of the spray, is that it will not be applied with the frequency necessary to insure success.

Too much care cannot be taken to keep the cellar in good condition. Keep it free from rubbish and have it clean and well ventilated. A cement floor is easy to keep clean and will not hold dampness.

A Real 1913 Car

By R. E. Olds, Designer

Here are some things which you should look for in a 1913 car. A car without them lacks things you should have.

New Features

The leading cars of this year have the left-side drive. They have electric dash lights—set-in lights—not the old projecting lamps.

They have - oversize tires. Skimpy tires, which double one's tire bills, are quite out-of-date.

All cars, in such things, follow the leaders. So don't get features which the best makers have abandoned.

New Ideals

Then men today are buying cars for keeps. So the best makers now are building cars which will run for years like new. And cars which cut down upkeep.

Reo the Fifth, my latest car, shows what such cars require.

It is built of steel made to formula, and analyzed twice. The gears are tested in a 50-ton crushing machine. The springs are tested for 100,000 vibrations.

Every driving part, as a margin of safety, is given 50 per cent overcapacity.

We use 15 roller bearings, though they cost five times as much as common ball bearings. We use 190 drop forgings to avoid the risk of flaws.

We use a \$75 magneto, a doubly-heated carburetor, a smokeless oiling system.

We build slowly and carefully—grind parts over and over—watch them through endless inspection.

Each engine is given five long tests, lasting 48 hours altogether.

We could save in our building about \$200 by using less care and less costly parts. But it would cost you in upkeep, in years to come, several times \$200.

So we give you the best we

know. Then we save you about 20 per cent on our cost by confining our output to this single model.

Thus we give you a car, built as we describe, at this matchless Reo price.

Rod Control

Reo the Fifth has our new control. All the gear shifting is done with one center rod, entirely out of the way. It is done by moving this rod only three inches in each of four directions.

There are no levers to clog the way of the driver. Both brakes are operated by foot pedals. So the driver enters from either side.

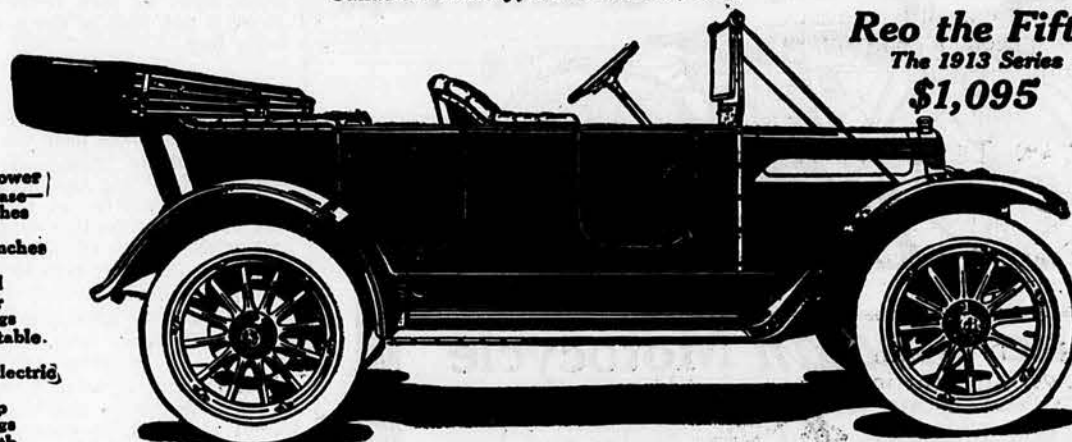
You will want this feature in your car when you see how much it means.

After 26 years spent in car building, Reo the Fifth marks the best I know. If you want the best, please see it.

Write for our catalog and we will direct you to the nearest Reo showroom. They are everywhere.

R. M. Owen & Co., General Sales Agents for Reo Motor Car Co., Lansing, Mich.
Canadian Factory, St. Catharines, Ont.

Reo the Fifth
The 1913 Series
\$1,095

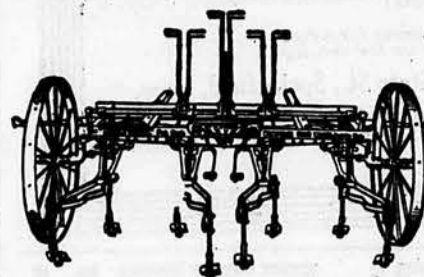


30-35
Horsepower
Wheel Base—
112 inches
Tires—
34 x 4 inches
Center
Control
15 Roller
Bearings
Demountable
Rims
Three Electric
Lights
190 Drop
Forgings
Made with
B and Z
Passenger
Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, Prest-o-Lite gas tank for headlights, speedometer, self-starter, extra rim and brackets—all for \$100 extra (list price \$170). (Gray & Davis Electric Lighting and Starting System at an extra price, if wanted.)

Strength - Economy - Perfect Control - Simplicity

Are combined in "BEATRICE" Agricultural Implements

**Send for Free Catalogue**

We have a free catalog that we'd like to send you. It tells all about agricultural implements and how they should be made. It describes fully the "Beatrice" line. You should have a copy. We'll be glad to mail it to you free, and without any obligation, if you'll just send a postal.

Or Ask Your Dealer

The "Beatrice" line is guaranteed by an ironclad contract. That's why you will find that most of the better implement dealers carry the "Beatrice." Ask your dealer. If he doesn't carry the line and can't give you the information you want, write us for full information.

All "Beatrice" implements are designed from practical farming experience; the material is selected by experts; and the work is done by skilled mechanics. Every implement is guaranteed to be all we claim for it. The original "Beatrice" implement is the

"Beatrice" Two-Row Cultivator

Users of this cultivator say that it is easiest to operate, that it requires practically no repair, and stands up well under the most severe strain. The axle arm is so attached that perfect balance is maintained at all times. A feature to be found only in "Beatrice" cultivators is the entire elimination of neck weight and side draft. This is very important. The eveners are most carefully designed and constructed. The shovels can be set to any pitch. The lifting device is arranged to operate the gangs singly or in pairs, at your will.

You should investigate the "Beatrice" line before buying any other implement. Write today for a copy of the Free Book.

BEATRICE IRON WORKS
202 Court St. Beatrice, Nebraska

DE LAVAL

CREAM SEPARATORS

No Excuse for any Cow Owner Being Without One

There is no reason why any cow owner who sells cream or makes butter should be without a cream separator, and there is no excuse why he should not have the best separator.

Any creameryman or experienced dairyman will tell you that a good cream separator will give you a great deal more and a great deal better butter than you can make with any gravity setting system, and equally, of course, more and better cream, if you are selling cream.



The DE LAVAL is acknowledged by creamerymen and the best posted dairy-men the world over to be the "World's Standard" and the one and only separator that always accomplishes the best results possible and always gives satisfaction.

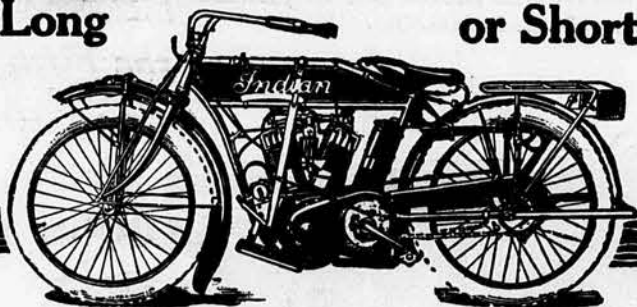
You cannot make the excuse that you can't afford to buy a De Laval, because it will not only save its cost over any gravity setting in six months and any other separator in a year, but is sold for cash or on such liberal terms that it will actually pay for itself.

A little investigation will prove to you that the truth of the matter is that you really can't afford to make cream or butter without the use of a DE LAVAL cream separator.

The nearest De Laval local agent will be glad to demonstrate this to your own satisfaction, or you may write to us direct.

THE DE LAVAL SEPARATOR COMPANY
NEW YORK CHICAGO SAN FRANCISCO SEATTLE

For Long or Short Trips



The Indian Motorcycle

BRINGS your farm close to town. Makes you independent of train, trolley and long distances. Upkeep cost next to nothing.

You can go anywhere, over any kind of road, at any pace from 4 to 50 miles an hour. Two comfortable riding positions. Always ready for instant use.

The Indian Motorcycles for 1913 are marvels of comfort and utility. Safe, powerful, fast and reliable. Eleven important improvements over 1912 and 29 minor "refinements." The new Cradle Spring Frame has done away with vibration. No increase in prices.

Prices { 4 H.P. Single, \$200 } f.o.b. Factory
 { 7 H.P. Twin, \$250 }

Ask any of our 2000 dealers for a free demonstration or write us for catalog

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SIZES
6 TO 14 FT.

APPLETON

Appleton-Goodhue Windmills will pump your water economically, work whenever the wind blows and keep at it for years. For a nominal sum we will **insure for 5 years** against cyclones, tornadoes, anything but neglect.

Why experiment? Buy a simple, sturdy, safe, self-oiling, self-governing Appleton Goodhue outfit.

FARM POWERS

When the wind don't blow you will need an Appleton Gasoline Engine and pump jack. You can belt on to the pump, when needed, or run your churn, hand sheller, etc. For heavy work, running the husker or silo filler you have your pick up to 18 H. P. Hopper cooled, speed changing device, single side rod; a perfect engine. Write us today.

APPLETON MFG. CO., 319 Fargo St., Batavia, Ill.

1 1/2 TO 18 H.P.
SKIDDED-PORTABLE

DAIRY



If the calf is to become a big cow it must be made a big calf. The way to do this is to keep the calf growing. This requires feed of such kinds and in such proportions as will build a large frame. Fat-making feeds will not suffice.

Most farmers admit that there is money in dairying but the real question is that of getting money out of the dairy, and this is what bothers most people. The question is easy of solution, however, when a bunch of good cows are gotten together.

Wasted feed represents a loss of money; the acres required to produce the feed wasted and the labor involved in its growing and saving has produced nothing. The whole effort is lost motion. There is too much lost motion in farming in general.

The dairy editor of an exchange in his plea for the better treatment of the dairy cow, demands that the cow be protected from the cold summer rains. The state for which this editor is writing has about the same climate as Kansas. This is an example of a lot of foolish advice given dairy farmers. The rains we have from now on through the summer will not hurt the milch cows if there is plenty of grass in the pasture for their use after the rain is over.

An exchange questions the statement of a writer who says that the silo would double the amount of milk produced on the farm per acre. If the correspondent meant that an acre of feed in the silo would produce two times as much milk as the same acre of feed saved in dry or fodder form, he was correct insofar as the reference applies to cane, kafir or corn fodder. The statement is not true in the case of good alfalfa hay.

A farmer recently replied to our question, that his luck with his dairy cows had been good the past year. We asked him if he meant "luck." He reflected and said "No," adding that in years past it had been a matter of luck but in the last two years feeding from a good silo and with plenty of alfalfa hay in the barn, he did not believe that it was luck. The fact is that "luck" on the farm hinges on good planning and systematic work.

The amount of work a man is able to do in a day does not count for much except the work he does is efficient and produces results. There are enough cows working at this dairy job in Kansas to increase the receipts from dairy products two or three times. A larger per cent of the time of these cows is wasted and it is not so much the fault of the cow, either, but because she is not given the right kind of feed to work with and so the Kansas cow does not produce as much milk as she might.

An exchange says that the man who makes the most money from his dairy considers keeping his cows a pleasure rather than a burden. This brings up the point on which we have commented heretofore, namely, that an undertaking is burdensome or becomes drudgery only in the proportion that it fails to give proper returns for the time and energy expended. Ordinarily, cow keeping is considered drudgery, but the feeding and handling of a dairy returning \$80 to \$100 per cow, has gotten past the drudgery stage and has become a pleasure.

We say again that the breed of dairy cows selected is not at all important. The Kansas farmer who selects either one of the four dairy breeds will succeed with the breed he selects if his judgment is good and his methods of handling are as they should be. Usually there is some inexplicable reason which causes a farmer to select animals of a particular dairy breed for his foundation stock. It matters little what those reasons are. If the breed he selected is believed by the farmer to be the best dairy breed, this feeling in itself means success.

"I think the milch cow, the silo and the manure spreader will prove the salvation of our country," writes G. M. Curnutt, Montserrat, Mo. He says that in his section both dairy and beef cattle are in large demand, and that the supply is not equal to the demand.

Every KANSAS FARMER reader should observe the records of the Pioneer Cow Testing Association of Dickinson County as those records are published in these columns. The members of this association are delighted with their undertaking. They have just cause to be for the reason that some superior cows have been discovered in these farm herds. More than this, as a result of the association's work, they are learning what it actually costs to feed their cows and this is worth a great deal when it comes to computing the profits from dairying.

It is not unusual to hear slighting remarks with reference to the constitution of dairy-bred cows. Not long since we discussed this subject with a reader of KANSAS FARMER who said that he believed that the every-day farmer was not justified in keeping pure-bred stock, that three-fourths or seven-eighths grades were about as highly bred as a farmer should own. Further inquiry developed the fact that this man believed that as dairy animals approached pure breeding their constitution became weakened and so required the very best care and even then were short-lived. He gave it as his opinion that the large, husky, fat beef animal possessed the most rugged and vigorous constitution. We asked the question as to whether or not this applied to the human family. The gentleman immediately saw the point and began to side-step. Beef animals belong to what is known as the lymphatic temperament. This temperament is exemplified in the case of fleshy humans. Some of such persons, as well as some of such animals do have vigorous constitutions, showing that the constitution does not follow or depend upon the size or the amount of flesh carried. The dairy cow belongs to what is known as the nervous temperament and which corresponds with the same temperament in humans. Such temperament does not indicate nervousness but is the temperament applied to humans as well as to animals, spare in physical make-up. Humans built on this plan are often extremely vigorous. The size or the amount of flesh carried is not at all an indication of constitution. There is only one test of constitution and that is the amount of work the animal is able to do and stand up under the strain. In the case of the beef animal, this is the amount of flesh it is able to put on as a result of the amount of feed he consumes. If the beef cow is a vigorous animal, eats heartily, grows fat, and so is not susceptible to disease, we may say she has a vigorous constitution. If, on the other hand, she is not anxious for her feed, is finicky in the selection of her feed, she is regarded as lacking in constitution. The same condition applies exactly to dairy cows, the size of the frame or the quantity of meat on that frame not being a consideration. The fact is that the dairy cow in the production of dairy products has a strain on her animal body which is in no manner equaled by the beef animal. If she were weak constitutionally she would not be able to withstand this strain. The life of the dairy animal is as long as that of the beef animal and there is no evidence whatsoever to show that dairy animals do not have a constitution in every respect equal to beef animals. It is a fact that in the very make-up of the dairy animal she is not able to resist cold rain and sleet to the same extent that the animal clad with a thick coat of fat and beef, is. This will be seen, too, in the case of the human family, fleshy persons not finding it necessary to dress as warmly as thin persons. If in the handling of the dairy herd it is the intent of the farmer to expose his cows to the rigor of the elements, then he will find that his thin and spare dairy animals will not resist the elements as do the beef animals. He will find at the same time, too, that he will not get milk from the dairy animals kept under such conditions.

LIVE STOCK

An encouraging report comes from Hewitt & Sons of Andrew County, Missouri. These gentlemen say that the spring pig crop has been good and that about 75% of the pigs have been saved. Probably more important than this statement is this to the effect that hog cholera in that section of the country has entirely died out.

P. E. H., Cowley County, Kansas, writes that he has been spending the greater part of his time in Texas the past few years, but having for years engaged in the live stock business in Kansas, he cannot help but keep in touch with general live stock conditions. He says that everywhere he finds a great shortage of beef and stock cattle and that orders for stock cattle are hard to fill. It would seem that there was no better time than now for the farmer to increase his cattle stock.

Our subscriber, John Sumner of Franklin County, Kansas, writes that he is out of the live stock business at present, having moved to Manhattan to put his boys through the Kansas State Agricultural College. He adds, "I hope you will continue to camp on the trail of Governor Hodges and his new board of administration, and so be able to prevent their curtailing the usefulness of the Kansas Agricultural College. The farmers of Kansas are certainly entitled to having their college enlarged rather than curtailed in any of its departments."

C. A. Dawdy, Jewell County, writes, "Yes sir, I do handle pure-bred stock." He writes the words "yes sir" in capitals, too. We believe that, generally speaking, the man who has pure-bred stock is proud of such ownership. If the keeping of pure-bred stock had no other effect on the farmer than to make him feel proud of his vocation, such kind of stock would be well worth while. Further along the same line he writes that in his judgment he has the best dairy cattle on earth. That statement pleases us, too. He thinks the Guernseys are the best cattle. He has recently established his Guernsey herd of 3 cows, 1 heifer and 2 bulls. He says that there is a great demand for dairy cattle through his section. He also states that the silo is growing in popularity. He built the first silo in his county. He takes an optimistic view with reference to the demand for all kinds of improved live stock in his county, and while he is not breeding cattle, horses or mules, he says that the demand for each is strong.

W. L. Maddox, Barber County, Kansas, writes that there is a growing sentiment in favor of dairy cattle in his county, and that the demand is inclined principally toward Jerseys. He says, too, that a good many silos are being built in that county. He states also that there is a strong demand for pure-bred beef cattle. It would seem from the letter of Mr. Maddox that the farmers of his county were taking up either improved dairy cattle, or improved beef cattle. It is a fact that many farms are better adapted to the maintenance of a dairy herd than are others. On such farms dairying with dairy cattle should be the principal issue insofar as live-stock is concerned. There is another character of farms best adapted to beef cattle, and it is gratifying to know that the owners of such farms recognize the fact that they can handle beef cattle to a better advantage and with greater satisfaction to themselves than dairy cattle. In other words, there are certain conditions under which it is advisable to engage in dairying, and certain other conditions in which it is advisable to engage in beef production. Mr. Maddox is himself an Aberdeen Angus cattle breeder. He says that a wave of sentiment for better live stock of all kinds has taken possession of the county. He says that even the women are more interested in better poultry than ever before.

Readers will recall that KANSAS FARMER has been insisting that the demand for good stock of all kinds was now greater in Kansas than ever before in the history of the state. Within the last month or six weeks we addressed not less than 3,000 letters to farmers and stockmen throughout Kansas, Oklahoma, Missouri, Iowa, Nebraska and Colorado. To these, fully 80% of the replies have been received, and almost without exception replies indicate an extraordinary demand for the very best of stock in all sections. If pure-bred live-stock offers to the farmers advantages over scrub live stock, it is certain that the farmer cannot afford to grow



CATALOG NOW READY

The Detroit Tractor is controlled by REINS and one man operates both the Tractor and the Implement drawn by it. Can be used more hours per year because it is adapted to every farm implement.

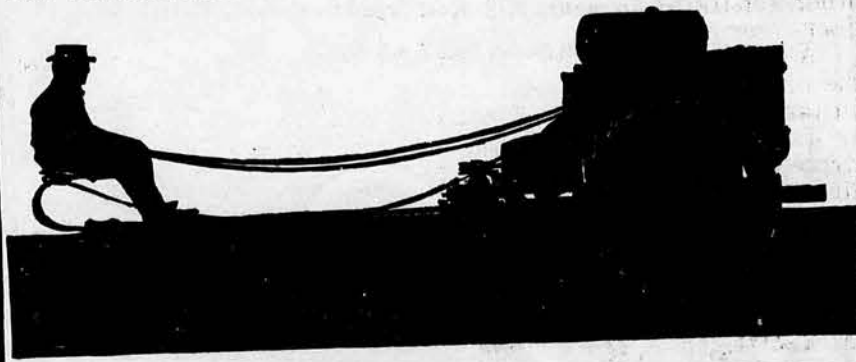
The Result of fifteen years experience with tractors on our own farm.

Designed by famous Detroit automobile engineers.

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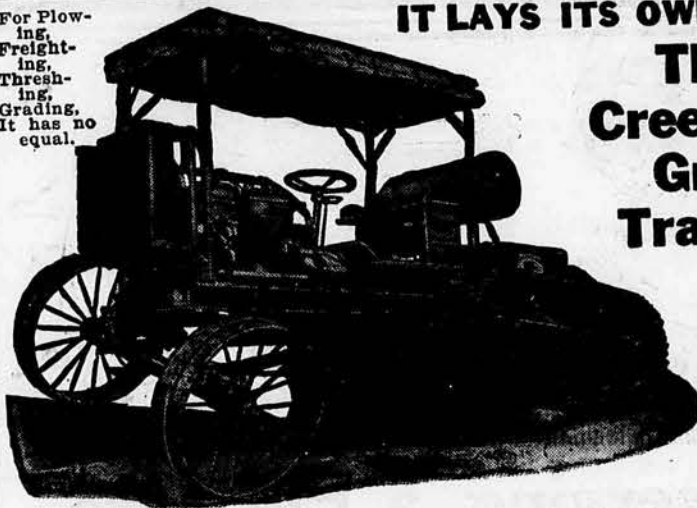
DETROIT, MICH.



For Plowing, Freight-ing, Thresh-ing, Grading, It has no equal.

IT LAYS ITS OWN TRACK

The Creeping Grip Tractor



Good Roads, Rough or Swampy Ground are Alike to This Powerful Tractor. It Will Go Anywhere.

Motor Operated with Kerosene, Distillate or Gasoline

The "Creeping Grip" delivers at the draw-bar in pounds pull a greater percentage of the power generated by the motor than any other tractor made. Remarkable fuel economy and low cost of upkeep are its strong features. We absolutely guarantee the crawler shoes or tractor bands for the entire life of the machine.

The "Creeping Grip" Tractor has the strongest warranty of any tractor on the market. Three sizes: 40 Brake H. P.—30 Draw-Bar H. P.; 60—45 H. P. 75—55 H. P.

The "Creeping Grip" Tractor makes our customers our friends. Send for catalog and testimonials.

WESTERN IMPLEMENT & MOTOR COMPANY

Dept. T-6.

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DO YOUR OWN REPAIRING

WE MAKE A SPECIALTY OF FURNISHING

Machine Tools Lathes, Drills, Shapers, Milling Machines And All Small Tools Used in Repairing Automobiles

And other machinery. Careful information and prices given on request.

THE ENGLISH TOOL & SUPPLY CO., 410 W. 5th St., Kansas City, Mo.

poor live stock and is justified in at once beginning to grade up. The advantages of the best of all kinds of live stock are no longer in doubt. It is certain that the well-bred dairy cow will produce dairy products in large quantities and more economically than cows not bred for the purpose. On the other hand it is equally certain that the well bred beef animal will produce beef in

greater quantity and at less cost than the animal not so well bred. Since the object of live stock is to furnish a market for the grain of the farm, it is certain that the better the live stock, the better market such stock will furnish. To feed good grain to poor hogs, cattle or cows, would be like selling that grain to an elevator which could not or did not pay the highest price.

\$25 to \$40
SAVED



Here's the machine that fits in with my idea of what a separator ought to be—the right price and the right quality. The Beatrice stands alone on the separator market as the one high-grade separator at a fair-play price. Instead of paying \$100 to \$110, I paid \$75 for 1000 pounds capacity. I have yet to find a more efficient and durable machine.

BEATRICE
Cream Separator

It's no trouble at all to keep it as clean as a new pin and perfectly sanitary. The patented device will clean the machine and make it spotless in less than 2 minutes.

The close skimming it does is surprising. My skimmed milk doesn't show a particle of cream. The occasions I have had to put my hand in my pocket for repairs have been exceptionally few and far between.

—Farmer Onswon.

600 lbs. Capacity \$55
800 lbs. Capacity \$65
1000 lbs. Capacity \$75

If you don't know the Beatrice, it will pay you to get acquainted. If your dealer can't introduce you, just write

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CREAMERY
CO.,

Topeka, Kan.
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Kendall's Spavin Cure
The Old Reliable
Horse Remedy

THOUSANDS of farmers and horsemen have saved money by using Kendall's Spavin Cure

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Read the letter of Dr. MacLagger, Parish, N.Y. We have hundreds of other letters to prove everything we say about Kendall's Spavin Cure. Let us send you some other letters. But in the meantime get a bottle from your druggist. Bear this advertisement out with you to remind you to get Kendall's Spavin Cure. Price \$1.00 per bottle or 6 bottles for \$5.00. Get our valuable book "Treatment of the Horse"—Free at your druggist or write to us. DR. E. J. KENDALL COMPANY Enosburg Falls, Vermont, U.S.A.


Dr. J. E. MacLagger, Parish, N.Y. writes: "In justice to your valuable medicine 'Kendall's Spavin Cure' I wish to say in my practice of veterinary science I have found it efficient and safe."

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THIS OFFER IS NO CATCH. It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for \$15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Gears thoroughly protected. Western orders filled from Western points. Whether your dairy is large or small, write us and obtain our handsome free catalog. Address:

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K-R-I-T

The K-r-i-t-Farmer drives a low-priced car of high-priced efficiency

That's what 4000 K-r-i-t-Farmers tell us. They satisfied themselves on the power of the K-r-i-t motor, the durability of the K-r-i-t transmission and the strength of the K-r-i-t axle. They have proved for themselves that the motor is the heart, the lungs, the very life of any motor car; the transmission, its muscles and nerves; the axle its backbone and legs.


No farmer would buy a horse with weak legs or a weak back. The K-r-i-t-Farmer knows the strength and safety of the K-r-i-t Axle. He enjoys that feeling of security afforded by the knowledge of extra braking surface. Here's how intrinsically good the K-r-i-t Axle really is:

The K-r-i-t axle is of the semi-floating, split housing type. The malleable iron and tube construction give a rigid support to the gear bearings, maintaining an exact alignment of the gears at all times which is essential to quiet running and long life. The centre housing casting is so constructed that the metal required for the bearing supports also carries the stresses of the load on the axle. This construction is actually lighter in weight than a corresponding pressed steel full floating axle and is used by most of the higher priced cars and almost universally on the best foreign cars.

Once the gears are set and are satisfactory and quiet under test it is impossible for them to get out of alignment. It requires great accuracy to make axles of this type so they can be assembled economically. This we are enabled to do as we make our own gears within our own organization. We have used this type of axle on K-r-i-t cars for the past three years and never have we had returned to us a broken axle shaft and repairs are practically nil. The spring suspension on the K-r-i-t car helps the axle in that it is flexible and does not bind the axle or put any undue strain upon it. Let us tell you what 4000 K-r-i-t-Farmers say of the K-r-i-t axle. Send for the name and address of the nearest K-r-i-t dealer and he will be glad to bring the K-r-i-t to your farm. Write us today—now.

Krit Motor Car Company, 1678 East Grand Boulevard, Detroit, Mich.

All Models \$900 f. o. b. Detroit




Preserving, a Pleasure —with Parowax

Dip tops of jars and catsup bottles in melted Parowax. Or pour this pure paraffine directly on top of contents of each jelly glass. Result—a perfect, air-tight, mould-proof seal that keeps canned vegetables, catsup, chow-chow, preserves and jellies indefinitely.

No Tins or Tops Needed

It is even simpler than it sounds. It is as cheap as it is easy. No bother with tops that will not fit. Not even paper covers need be used. The direct contact of Parowax with the jelly cannot affect its taste or goodness.

Parowax is tasteless and odorless. It is so thoroughly harmless

that it can be chewed like food or gum.

Indispensable in the Laundry

Parowax cleans and whitens clothes in the wash. It imparts a beautiful finish to them in the ironing. And Parowax has a hundred other household uses. No home should be without it.

Your druggist and grocer both keep Parowax. Order it today.

Mrs. Rorer's Recipe Book

Ask your dealer for this valuable free book by this celebrated culinary expert. Or send direct to us.

STANDARD OIL COMPANY, Chicago, Ill.
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READ KANSAS FARMER'S CLASSIFIED
ADVERTISING PAGE FOR READY BARGAINS

HOME CIRCLE

Soy is the national sauce of Japan, made from the soy bean. It is used in most of the popular dishes of that country.

The "zest" of lemon is the very thinnest possible grating of the yellow outer rind; if any of the white underneath is added, the whole will become bitter.

Olives stoned and chopped and mixed with fresh butter or heavy cream and cream cheese make one of the most delicious of sandwich fillings.

Stale macaroons, which can be bought cheap at the baker's make the most delicious additions to pudding and custards if pulverized and sprinkled over the top.

A simple and excellent way to remove dirty marks from a raincoat is to cut a raw potato in slices and rub it well on the marks. It will also remove mud stains from dress skirts, children's coats and men's trousers.—Pittsburgh Sun.

When ironing handkerchiefs, begin in the middle. When the edges are ironed first the middle of the handkerchief is apt to swell up like a balloon, making it difficult to iron the whole properly.

To dampen fine clothes to iron, wring a coarse towel out of warm water, wrap articles to be ironed in this, let lie over night and they are ready to iron; they will all be damp alike; no wet spots and dry ones.

When a wall is so soft that it will not hold a picture nail, mix a little plaster of Paris in a teacup; enlarge the hole to a fair size and insert the plaster—and, a minute after, the nail—and let it dry, says the St. Louis Republic. The nail will be perfectly secure after it has dried.

In cooking, many odors are very offensive and must be removed from the kettles before they can be used again. Salt on the dishcloth is good; but if a little cornmeal is sprinkled on the stove and the utensils inverted over it for a few seconds the odor will vanish.

Crust With Egg.

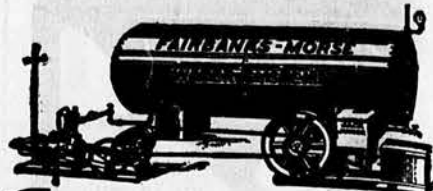
To prevent the gravy from soaking through the bottom crust of meat pies brush over the crust with white of eggs, says the Hartford Courant. After frying onions pour a little vinegar into the frying pan, let it get hot and it will remove all smell from the pan.

Ants.

The best way I have ever found to get rid of the troublesome little ant that haunts the safe and kitchen cabinet, is to follow the little soldiers, as in line, they march away laden with supplies. Somewhere near the house you will find their headquarters. When you get them located get a kettle of boiling water and scald them out. You will not be bothered any more unless another bed of them locates near your kitchen, in which case all you have to do is to repeat your tactics.



No. 6225—Girls' Balkan Dress. The foundation of this very stylish frock is a one-piece skirt, attached to a sleeveless underwaist. Over this is worn the Balkan tunic, a plain long blouse with diagonal closing gathered in at the lower edges and trimmed with a wide band. A handsome collar trims the neck, and elbow sleeves complete the garment. The pattern, No. 6225, is cut in sizes 4, 6, 8, 10 and 12 years. Medium size requires 3 1/2 yards of 27-inch flouncing, 1 1/2 yards of 36-inch lawn, 3 1/2 yards of edging, and 2 yards of insertion. Price of pattern, 10 cents.



Improve the sanitary conditions in and about your home. Safeguard the health of your family and lessen the labor of household duties by installing a

Fairbanks-Morse Pneumatic Tank System

Pure water under pressure always on tap in kitchen, bathroom, laundry, etc. Installation cost reasonable; operating cost but a trifle. Outfit shown is easily set up in basement of ordinary residence and can be operated by hand, engine or motor. From our complete line you can select an outfit especially adapted to your needs.

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all over the country are riding the big 1913 YALE Motorcycles. The YALE is the biggest and strongest built motorcycle on the market, bar none. The motor is the best cooled and best oiled, with power and speed to meet every requirement.

"BUILT LIKE AN AUTOMOBILE."
You will want our "Big Y" literature.

**J. C. HARDING CO., 106 E. Sixth St.,
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I am interested in the big YALE.

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Send us this ad with \$10.00 Money Order and we will ship you one first-class new 40-pound Feather Bed; one pair 6-pound new Feather Pillows, worth \$2.50; one 6-pound new Feather Bolster, worth \$2.50; and one pair full size Blankets, worth \$3.50, all for \$10.00. All new goods and no trash. Biggest bargain ever offered. Satisfaction guaranteed. This offer is good for a short time only. Mail money order now or write for circular and order blanks. Reference, American Exchange National Bank. Address **SOUTHERN FEATHER AND PILLOW CO., Dept. 55, Greensboro, N. C.**

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Your Profits will be INCREASED by that Most Economical Producer **THE GUERNSEY COW.** If you want such, write **The American Guernsey Cattle Club, Box K. F., Peterboro, N. H.**

FREE! A \$65 Instrument



No strings tied to this offer. If you have an instrument or not, you cannot overlook this. State if you are a band leader or need an instrument.

Agents for Holton
Band Instruments.
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placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, can't tip or tip over; will not soil or injure anything. Guaranteed effective. Sold by dealers, or 6 sent by express prepaid for \$1.

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Bees for the Farm

Need little attention and pay big profits. If you are interested in them send for a sample copy of *Gleanings in Bee Culture*. Also a bee supply catalog. **THE A. I. ROOT CO., Medina, Ohio.**
Box 320.
ALFALFA, \$6; SWEET CLOVER, \$11; cane, millet, timothy, \$1.50. Pigs \$11. Cholera serum, 2 cents. Farms for sale and rent on crop payments.
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FOR SALE—Scotch Collie Pups. Sable and White stock farm.
U. A. GORE, Seward, Kan.

When writing advertisers, please mention *Kansas Farmer*.

The Trouble.

A fond mother who was entertaining friends at tea was mortified beyond measure to see her little son crowding food into his mouth with a knife.

"Eldon," she finally remonstrated, "what did I tell you about using your fork?"

"I know mamma," confessed the youngster, "but this one leaks awfully."

The Jayhawk
HAYING TOOLS.

MADE OF
Wood or Galvanized Steel

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F. WYATT MFG. CO.

Salina, Kan.
102
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Also a full line of implements on which we can save you money. Sold direct. Write for big free bargain book.

Save \$50 to \$300

I absolutely guarantee to save you \$50 to \$300 on any Galloway gasoline engine. Made in sizes from 1 1/2 h. p. to 15 h. p. My famous 5 h. p. engine—without an equal on the market—sells for \$99.50 for the next 60 days only! Buy now! Same size costs \$225 to \$300 through your dealer. Think of it! Over 80,000 Galloway engines in use today. All sold on same liberal, free 90 Day Trial Offer I make you—and all giving satisfaction. Isn't that proof enough?

Get My Catalog and Low Direct Prices

Write me before you buy any other style or make. I will send you my catalog and low direct price on the famous Galloway line of frost-proof, water-cooled engines. Free Service Department at your disposal. My special 1913 offer will help you get an engine partly or wholly without cost to you. Write today. Do it now. Get cost to you. Write today.

WILLIAM GALLOWAY COMPANY,
210 Galloway Station, Waterloo, Iowa

Shinn
Lightning Rods

SOLD UNDER \$75,000 BOND

Because they are absolute protection against lightning. Every Shinn Lightning Rod is an expert on erecting Lightning Rods. Our state inspectors follow the dealer and inspect work, then you are absolutely safe. INVESTIGATE CAREFULLY.

There is a difference in lightning rods. Shinn rods are best made, most highly improved. See your dealer. Catalog free. W. C. SHINN, 109 1/2 St. Lincoln, Nebraska

LIGHTNING PROTECTION

Everyone admits the necessity of lightning rods. They are recognized by insurance companies as being a great factor in reducing the fire risk.

"Made-Right" Lightning Cable is of the best quality copper and is extra heavy, as shown by the illustration. Sold direct to 8 1/2¢ the user, freight prepaid, foot 8 1/2¢.

Don't wait. We save you 50% of the cost of rodding your buildings and give you full directions for putting them up so that you can do it as well as anyone. Write for regular giving particulars. IOWA LIGHTNING ROD CO., 218 E. Second St., DES MOINES, IA.

AUTO FEDAN POWER PRESS



The best and cheapest power press on the market. Ask for Catalog 64.
THE AUTO-FEDAN HAY PRESS CO.,
1564 W. 12th St., Kansas City, Mo.

Tells Why Chicks Die

J. C. Reefer, the poultry expert of 1684 Main Street, Kansas City, Mo., is giving away free a valuable book entitled "White Diarrhea and How to Cure It." This wonderful book contains some new scientific facts on white diarrhoea and tells how to prepare a simple home solution that cures this terrible disease over night and actually raises 98 per cent of every hatch. Everyone interested in poultry should certainly write Mr. Reefer for one of these valuable FREE books.

Hopper & Son, Manhattan, Kansas
Builders of

Concrete Silos

Write for list of silos we have built. Ask our customers about them.

White Plymouth Rocks

Again prove their superiority as egg layers in the National Egg-Laying Contest, one White Rock hen laying 281 eggs; 645 hens competing. I have bred White Rocks exclusively for 20 years and have them as good as anybody. Eggs from three high-scoring pens, \$2.00 per 15; \$5.00 per 45, delivered free by parcel post or express. Safe delivery guaranteed. A limited number of eggs from a specially fine mated pen, \$5.00 per 15. You will get what you order, or money refunded.

Station B. **THOMAS OWEN,**
Topeka, Kansas.

POULTRY

It is time now to be on the lookout for lice. Don't wait till the chicks get droopy before applying a remedy. Dust the hen and chickens right now, and save lots of chicks, for after they once begin to droop it is very difficult to revive them.

In answer to an inquiry, give fowls that are suffering from looseness of the bowels, drinking water in which has been dissolved several tablespoonfuls of common baking soda. If very bad, give one-grain quinine pill each night for three nights in succession. For limber-neck give a tablespoonful of turpentine and water, equal parts.

The wing feathers of young chicks frequently grow so fast as to weaken them. Particularly is this so with the smaller breeds of fowl. Some poultrymen pluck out these long feathers, but there is danger of weakening the chick by this method, for they are apt to bleed. The better way is to clip the tips of the wing feathers when the chicks are about 10 days old. This will send the strength back to the body.

Some poultry experts are claiming that the cause of white diarrhea in chicks is a chill taken when transferring them from the incubator to the brooder. The temperature in the incubator is supposed to be 103 degrees, and the chicks are put into a brooder where the heat is only 60 or 70 degrees. There is too great a difference in this, and the result is a chill and cold, causing a serious digestive disorder. The brooder should not be less than 90 degrees in temperature for the first few days, gradually reducing it as the chicks get older.

Post mortem examinations have shown that the death of chicks during artificial incubation and rearing can be laid to four causes: First, to heredity or to environment during the period of incubation. Successive alternate periods of heat and cold during incubation are responsible for a very large portion of abnormalities. Second, to overcrowding in the brooders, resulting in death by suffocation, trampling, etc. Third, to imperfect sanitation, lack of ventilation, lack of sunlight, etc. Tuberculosis flourishes in the dark, poorly-ventilated brooders. Fourth, to improper feeding. For the continued maintenance of health there must be a definite proportion between the amount of carbohydrates, fats and the nitrogen-containing proteins. The Rhode Island Experiment Station says that a ration wholly vegetable is almost certain to contain too low a percentage of nitrogen, while a ration exclusively animal is very sure to be deficient in carbohydrates.

Feeding Ducks and Turkeys.

I am a reader of KANSAS FARMER and think it fine. Would some one kindly tell me how to raise Indian Runner ducks, also turkeys? Tell of the kinds of feed, how much, and how often, and what to do for lice. I am green on these subjects and would like some one to write in KANSAS FARMER as soon as possible, as I have both kinds of eggs set.—A READER.

If "A Reader" will look in KANSAS FARMER, issue of March 22, he will find a splendid article on the care and feed of turkeys, by Mrs. Clyde H. Myers, Fredonia, Kan., one of the most successful turkey raisers of the state. In the issue of May 10 he will find an exhaustive article on the raising of ducks. Better or fuller information on these subjects he could not find anywhere, but we cannot reprint these long articles every time a request is made for the same. If you are out of these numbers, copies can be procured from the office of KANSAS FARMER by remitting 5 cents per copy.

Remarkable Success With Chicks.

Dear Sir: I sold eggs to several neighbors last year and they, like myself, had good success with their hatches. But I raised 60 per cent more chickens than they because I used Walko. I sent to the Walker Remedy Co., E-10, Lamoni, Iowa, for a 50-cent box of their Walko Remedy and never lost a chick from bowel trouble. 300 chicks brought me over \$200 and I owe much of my success to Walko. It's the greatest little chick saver I ever used.—MRS. NORMAN FORSTER, Alpha, Ill.—(Adv.)

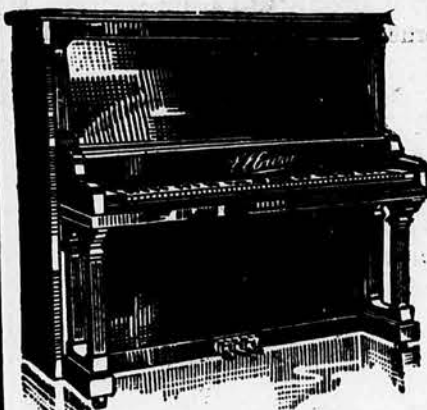
By adding a small bit of sugar to the water in which fresh flowers are placed the water will keep sweet and fresh.

Half the Rubbing taken out of Scrubbing

Old Dutch Cleanser

Many Uses and Full Directions On Large Sifter Can 10¢

Just as Easy to Buy a Good PIANO!



What They Think of Good Pianos.
Gentlemen—I feel that I am indebted for a great many courtesies in connection with my piano contract and I am very appreciative. Trusting to have further pleasant business relations with your house and assuring you that my piano is still in most excellent condition—Prof. D. F. Conrad, head of the piano department of Central College of Lexington, says it is the best Vose piano he ever played on. I am
(Signed) B. M. LITTLE, Supt.
Lexington Public Schools, Lexington, Missouri.

It's so simple and so satisfactory too when you buy it at Jenkins. You will never need apologize for the quality of the piano you buy at Jenkins. You'll never feel that you paid too much. You'll never hear that someone bought the same piano for less. The JENKINS ONE PRICE, NO COMMISSION PLAN IS YOUR PROTECTION.

Quality--Reliability--Economy

These positively go with every piano bought of Jenkins. We make the lowest prices in the United States on standard high class pianos. WE'LL SEND YOU A PIANO ON APPROVAL. If it is not satisfactory in every way, send it back.

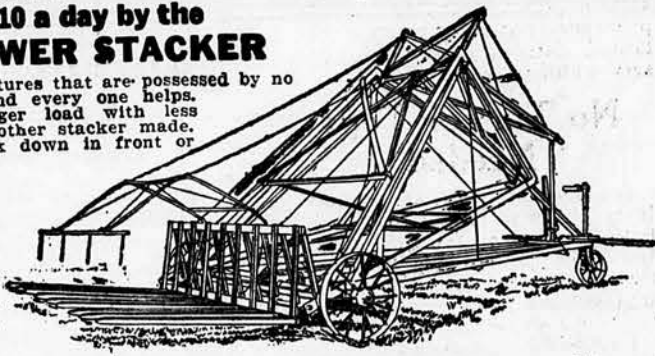
Steinway, Vose, Kurtzmann, Elburn Pianos on comfortable payments. Write for catalog and prices. High class guaranteed Player-pianos, \$435 and up. Call or write.

J. W. Jenkins Sons Music Company, Kansas City, Mo

MORE HAY IN A BETTER WAY BY USING HORSE POWER TO PITCH HAY AND ALFALFA

Save \$10 a day by the
SUNFLOWER STACKER

Ten exclusive features that are possessed by no other stacker, and every one helps. Will lift a bigger load with less strain than any other stacker made. It will not break down in front or tip up behind. Saves time and labor. Is strong in construction, practical in principle, simple in operation. The boy can run it. Write today for circulars and prices.



Sunflower Mfg. Co., Manhattan, Kan.

Wheat growers, ask about our Grain Stackers.

READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

HEAVY CAR TYPE FISK TIRES

The Fisk Rubber Company Devotes Its Energy and Resources to the Sole Production of Tire Service

The building of a pneumatic tire is not difficult. The building of *Tire Service* is where so many makers have met their Waterloo.

For fifteen years the Fisk Rubber Company has devoted its entire energy and resources solely to the production of *Tire Service*. It has had no side lines to divert effort and attention, but from morning till night the problem has been "How Can Fisk Tires Be Made the Tires of Greatest Service?"

These years of concentrated effort have been crowned by SUCCESS. Heavy Car Type Fisk Tires are today *The Tires of Greatest Service*. Working 24 hours a day for two years, increasing the output as fast as new buildings and machinery would permit, the Fisk Rubber Company has not been able to keep pace with the demand for its products. One hundred percent more Fisk Tires were built and sold last year than the year before, 80% of which went directly to consumers replacing original equipment.

There can be but one answer: Owners have bought HEAVY CAR TYPE FISK TIRES because time has proven them to be *The Tires of Greatest Service*. The public has been the judge and Fisk has been given the verdict. That is why we say to those using another make of tire "Ask Fisk Users Before You Buy Again."

Write Dept. 42 for Latest Fisk Booklet

The Fisk Rubber Company
Factory and Home Office Chicopee Falls, Mass.

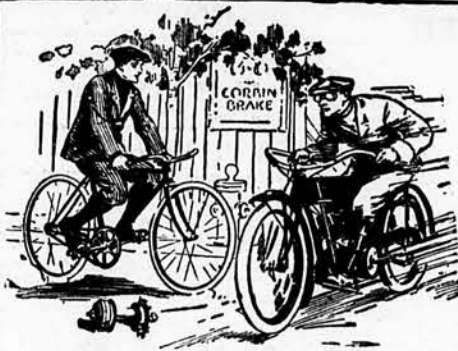
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FISK PNEUMATIC TIRES ARE GUARANTEED WHEN FILLED WITH AIR AT THE RECOMMENDED PRESSURE AND ATTACHED TO A REM BRANDING EITHER ONE OR BOTH OF THE ACCOMPANYING INSPECTION STAMPS. WHEN FILLED WITH ANY SUBSTITUTE FOR AIR OR ATTACHED TO ANY OTHER RIMS THAN THOSE SPECIFIED, OUR GUARANTEE IS WITHDRAWN.



Instant Control!

THE CORBIN Duplex Coaster Brake

Enables bicycle riders to avoid sudden accidents or collisions. Operated instantly by the pedal. The standard of safety, reliability and control. Invaluable for touring. Corbin Two-Speed brake is an immense assistance on steep up-grades or against strong head winds. Greatly appreciated by elderly riders.

Either of these brakes fitted to your wheel at any bicycle repair shop.

Send for 1913 free catalog showing all Corbin Brakes, Hubs and Axles

Corbin Screw Corporation Division
(American Hardware Corporation)

330 High Street, New Britain, Conn.
Licensed Coaster Brake Manufacturers

You run no risk to patronize persons or firms whose advertisements appear in KANSAS FARMER.

The GRANGE

DIRECTORY OF THE KANSAS STATE GRANGE OFFICERS.

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Lecturer.....L. S. Fry, Manhattan
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Secretary.....C. M. Freeman, Tippecanoe City.
Sec'y.....C. M. Freeman, Tippecanoe City, O.

Shawnee County Pomona.

The officers of Shawnee County Pomona Grange are: Master, J. L. Heberling; lecturer, O. F. Whitney; secretary, L. Mabel Waters. The next meeting of the Pomona Grange will be the third Thursday in June at Wakarusa.

Grange Opportunity for Co-Operation.

The co-operative idea can be effectively worked out by the Grange. Co-operative buying and selling will do more than anything else to promote the get-together spirit. The Pacific Grange Bulletin says that many of the Granges of Oregon do not open up even a shop or business office. One of the members handles the buying and selling in a quiet way and in many instances such an arrangement has saved the members several thousand dollars in a few years. Through this co-operative buying and selling every Grange member becomes interested and very often small transactions grow to the organization of mercantile businesses.

Grange Fair Preparations.

The Grange fair has gotten to be quite the thing in several counties in the state. Wherever possible a Grange fair should be held. It is doubtful if anything can be undertaken by a Grange that is of more value from an agricultural standpoint. This is the time to begin to lay plans and get ready for your fair. If you have not before held a fair, arrange now for it. The members will then know that a fair is to be held and will prepare to make an exhibit. If you have in years past held a fair it is now none too early to decide upon the dates for the next fair and to perfect the fair organization so that the members of such organization can be working for its success. With this part of the preliminaries arranged, the next move is on the part of members upon whom the exhibits will depend. See to it that every member will exhibit something. By winning at the Grange fair you have not only helped the Grange and your neighborhood, but you have gotten a little honor which comes from winning a prize, and perchance you may have grown a better crop than you would have grown had you not intended to make an exhibit and so entered into a friendly rivalry with your neighbors.

Berryton Grange Progress.

The principal subject of discussion at our meeting on May 14 pertained to the size and style of our new Grange hall to be erected in the seven-acre grove recently purchased. It is our idea to build as nearly as possible a fireproof building, and cement blocks or reinforced concrete are looked upon with most favor. Last fall, while the roads were good, we hauled some 12 or 14 loads of sand, and we expect to haul more soon. So soon as the kind of building we will erect is known, and the approximate cost is determined, the funds needed will be obtained.

Berryton Grange now has over 200 members. The first quarter we initiated in the four degrees nine members, and in the second quarter three members. We initiate at only two meetings during the quarter—the first and second meetings of each quarter. The large classes we have taken in lead us to wonder where we will obtain new members later. Other Granges within a few miles of us are large and flourishing and they draw on the available membership.

Doctor Leinbach, lecturer of our Grange, secured for the Grange, school and neighborhood, an interesting and instructive lecture on liquid air by Doctor Cady of Kansas University. We admitted school children free and charged all others a small admission to help defray those little expenses that always follow a lecture. Doctor Cady first told of the elements of liquid air, how it is made, then gave a series of experiments and passed the "air" around through the audience.—L. MABEL WATERS, Secretary Berryton Grange 1430.

MANURE LOADER



Saves its Cost in a short time in labor its cost in increased crops as a result of manure used which otherwise would go to waste. No hand work required. One man and team in a day can load from 50 to 75 loads of manure or dirt, including green manure, cornstalks or stack bottoms. Write for circular.

ANDERSON MFG. CO., Osage City, Kansas.

Eli Motor Baler

Capacities 2 1/2 to 3 tons per hour. Built so engine can easily be used as a portable general utility engine. Runs press without belt or sprocket chain. No Vibrations. Complete Line of Cylinders, 6 and 12 H. P. Horse and Power Balers. Write for Free Catalogue. COLLINS FLOW CO., 2022 Hampshire St., Quincy, Ill.

Pump Grind Saw
Made for hard use.
Wood Mills are Best, Engines are Simple, Feed Grinders, Saw Frames, Steel Tanks. Catalogues free. Agents wanted. Perkins Wind Mill & Engine Co. Est. 1860. 140 Main St. Mishawaka, Ind.

Wholesale Prices to Farmers

ONE ROW TWO ROW CULTIVATORS, and all farm tools. Write what you need and let us explain our factory to write direct plan. Write today. **DAVID RANKIN MFG. CO.,** Tarkio, Mo., U. S. A.

FIELD NOTES

Col. N. B. Price, Mankato, Kan., is much pleased with the results obtained through the advertising columns of Kansas Farmer. He writes: "For heaven's sake, change my ad back into the auctioneer's column, as I am sold out and could have sold a carload more. An ad in Kansas Farmer sure sets things going."

Lobaugh's Big Poles. A. C. Lobaugh, the successful breeder of the big kind of Poland Chinas, has his usual good bunch of spring pigs. Mr. Lobaugh is located at Washington, Kansas, and owns a fine hog farm just north of town. His herd boar, Orange Lad, is one of the good breeding boars of this part of the state and was sired by Big Orange and his dam was by Big King, he by Pawnee Lad. The 50 spring pigs are mostly by Orange Lad and others and the fall gilts, of which there is a fine lot, are by L's Mastiff by King Mastiff, first prize boar at Nebraska State Fair for two successive years.

Joe Schneider's Poles. Joe Schneider, the successful Poland China breeder located at Nortonville, Kan., announces a public sale for November 2. Mr. Schneider reports a very prosperous year in the hog business and says the outlook was never so good before, and he has bred pure-bred Poles ever since he began doing business for himself. In fact he has never owned anything but pure-breds, and during those years he has, as he says himself, seen many fads come and go. He has seen pedigrees go farther than the best themselves when they were up for sale. The so-called "hot bloods" and the "thousand-pound" sort have had but little attraction for Joe, but he has been on the job every minute studying the proposition from the standpoint of the pork raiser. His type is the big, easy feeding kind, and that he has reached the goal no one will deny who visits his herd. His principal herd boar, Guy's Expansion, is one of the best sons of all Expansion. He is the "widest-spread" kind, with the best of feet and strong, well set limbs. He is a full brother to Expansion Chief and Long's boar, Expansion Wonder. He is assisted by Hadley Goldust, a boar combining the blood of the great Hadley and Goldust strains. The herd at this time numbers about 135 head, big and little, and of this number about 80 are pig of spring farrow. The sows are the big medium type and nearly all of them were bred on the farm and are the result of careful mating on the part of their present owner.

Polled Durhams. The attention of our readers is directed to the card of C. W. Finley, Harper, Kan. Mr. Finley is offering a choice lot of Polled Durhams, including Vera 2d, sired by Glouster Chief 3d, P. D. 3078, S. H. 21129, and her five calves sired by Behemoth, Scottish Hero 2d and Polled Prince. Polled Prince X, P. D. 8934, S. H. 358251, is a blood red bull 25 months old, bred by F. Schaubert of Atchison, Kan. His sire was Governor and dam was Eden Bass 2d. Scottish Hero 2d X, P. D. 3512, S. H. 229564, was bred by A. C. Woods of Pendleton, Ind., and is a son of Golden Hero and a half brother to Roan Hero, now owned by D. Van Nice. Scottish Hero 2d won second in his class at the St. Louis World's Fair and was pronounced by cattlemen as one of the finest bulls they ever saw. Polled Prince is offered for sale. If interested, please write Mr. Finley, mentioning Kansas Farmer.

Bargains in Land

BUY or Trade with us—Exchange book free. **BESSIE AGENCY**, El Dorado, Kan.

FINE DAIRY FARM

240 Acres, highly improved, in high state of cultivation; good orchard, silo, alfalfa; near best college town. \$52 per acre. Write for farm list. **T. B. GODSEY**, Emporia, Kan.

BARGAIN

—200 Acres Fine Bottom Land, above overflow; virgin timber, near railroad. \$4,000. terms. Also handle exchanges everywhere. List free. **BURROWS**, Warm Springs, Ark.

STAR FARM

80 ACRES—Rich soil, all tillable; 23 acres clover, pasture, fruit, shade; all fenced; 30 acres hog wire; 4 deep, 1 shallow well; 5-room house, pantry, cellar, screened porch, modern barn 32x42, poultry house; good roads, near church and school; natural gas, telephone, rural route. Worth \$100 an acre; \$80 buys it now. **A. W. CUNNINGHAM**, Humboldt, Kansas.

WE TRADE OR SELL ANYTHING ANYWHERE. The Realty Exchange Co., 18-21 Randall Bldg., Newton, Kan.

TO EXCHANGE—Western Kansas land and other property. Submit propositions. **V. E. WEST**, Ransom, Kansas.

KINGMAN, 1,120 a. solid body, 350 cult., 500 bot., fair bld., near market; price \$32.50, half cash, bal. at 5 per cent. **JOHN F. MOORE**, LAND CO., Kingman, Kansas.

OUR NEW YORK IMPROVED FARMS are great bargains at present low prices. Send for free list. **McBurney & Co.**, 703 Fisher Bldg., Chicago, Ill.

ALWAYS HAVE Just what you want in farm or city property. A new list just out. Write for it. List your sale and exchanges with me. Hardware for sale. **ED A. DAVIS**, Minneapolis, Kansas.

EIGHTY ACRES, \$3,400. 120 acres, \$75; 4 miles to town. 160 acres improved bottom farm, \$8,500. 320 acres, can't be beat, \$16,000, terms. 320 acres, 3 miles town, improved, \$14,000. 485 acres, fine and fine location. Write. **H. H. STEWART**, Wellington, Kan.

ABILENE, KANSAS. 106 acres, unimproved, all fine river bottom land, no overflow, 1 1/2 mi. to good R. R. town; rich black loam soil; 86 acres now in wheat, all to go to purchaser if sold soon. Good terms at 5 per cent. Write for list. **Briney, Pautz & Danford**, Abilene, Kan.

GEORGIA: McDuffie County's large plantations offered in small tracts, well located and improved, \$15 to \$25 acre. Fine public roads, telephones, grain, cotton, fruits, live stock grow to perfection; ideal climate, fine citizenship. Free booklet. President Board of Trade, Thomson, Ga.

FINE 160 A. FARM, lime stone soil, good house, barn, etc. Nelly located. Will produce wheat, corn, clover, alfalfa. Part cultivated, balance pasture, meadow. Close to Fredonia, Kan., in oil gas belt. Will take \$40 a. and is worth \$75. Address Owner, Lock Box 807, Fredonia, Kan.

IDEAL DAIRY FARM—320 acres, 1 1/2 mi. of Utica. Seven-room house, large outbuildings, spring, large grove, orchard, alfalfa, all tillable land; 160 pasture; in Utica High School district; black loam soil, well and mill. This will suit you if you want something good. Price now only \$7,000. Easy terms of \$3,500 cash, balance long time. **Huxton Land Co.**, Utica, Ness Co., Kansas.

A BARGAIN IN WHEAT LAND. 240 acres good wheat land at \$20.00 an acre, 8 miles north of Dodge City, Kan., to trade for 60 or 80 acres of well improved land in Eastern Kansas, Eastern Oklahoma or Southern Missouri.

H. B. BELL LAND COMPANY. Room 5 Commerce Bldg., Dodge City, Kansas.

OPPORTUNITY KNOCKS At every man's door. This knock is for YOU, if you have money to buy one of the best farms in Kansas, not far from Kansas City and adjoining one of the richest cities in Kansas. Will earn 10 per cent net this year. \$20,000 will handle, balance long time, 5 per cent. **JOHN A. KERR**, Independence, Mo.

I HAVE THREE ESTATES that must be sold by June 1. 280 acres, just 1 mile from this city, fine home and ranch, \$60 per acre. 240 acres well improved, 40 acres alfalfa fenced hog-tight, 110 acres wheat looking good, 100 acres fine grass land, all can be plowed; 7-room house, good barn. Price, \$75 per acre, easy terms. Only 5 miles from town. 320 acres, one of the best farms in Clay County, close to town and market. Trustees of this estate say sell at once. Worth \$80 per acre, but will sell for \$55 if sold in 22 days from this date. Well improved, good land. Wire me you're coming. **F. L. NEWTON**, Clay Center, Kansas.

WILL TRADE my \$3,700 automobile for a Kansas farm. Must be unincumbered. Auto is in good condition. One of best makes. Address **Auto Man**, Care Kansas Farmer, Topeka, Kan.

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The N. W. 1/4 of Section 8, Township 27, Range 5 West, Kingman County, Kansas. 100 acres in cultivation, 60 acres in wheat, 40 acres pasture. Good smooth land and will be sold at auction on May 28, 1913, at 2 o'clock, p. m. Terms. If you will write, we will furnish free conveyance from Andale to the land. **C. F. FOUQUET**, Andale, Kansas.

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FARM RAISED SILVER WYANDOTTES, selected stock. Eggs, \$1.00, 15; \$5.00, 100. Baby chicks, \$1.00 hundred. Mrs. Julia Haynes, Baileyville, Kan.

WHITE WYANDOTTES—FOUR PENS select matings. Pure Fishel strain. Eggs for sale. Dodd's White Wyandotte Farm, Route 2, Girard, Kan.

BUFF WYANDOTTES—OUT PRICES for balance of season. Eggs from all our breeding pens at \$1.50 per 15; \$5.00 per 100. Baby chicks, \$1.50 per dozen. Mating list on application. Wheeler & Wylie, Manhattan, Kan.

RHODE ISLAND REDS.

PURE SINGLE-COMB RED EGGS, 15, \$1.00; 100, \$4.00. Gertrude Haynes, Meriden, Kan.

ROSE COMB REDS—STOCK FOR SALE. Eggs, \$3.50 per 100 after May 20. Mrs. John Buchanan, Route 2, Solomon, Kan.

SINGLE COMB REDS—100 EGGS, \$3.50; 30, \$1.25. Mrs. Rosa Janzen, Route 3, Geneseo, Kan.

R. O. R. I. REDS—HIGH SCORING heavy laying strains; \$1.50 per 15; \$4.50 per 100. Mrs. O. Fitzsimmons, Yates Center, Kan.

EGGS FROM S. C. REDS THAT ALWAYS win. Choice cockerels for sale. Write for mating list. Moore & Moore, 1239 Larimer Ave., Wichita, Kan.

ROSE COMB RED EGGS, FROM PENS mated to roosters costing from \$10 to \$30. Eggs at sacrifice prices after May 25: Fifteen eggs, \$1.00; 30 eggs, \$1.75; and 50 eggs, \$2.50. Also a few extra good roosters, \$2.50 and \$5.00 each, and good hens at \$1.00 each. W. R. Huston, Americus, Kan.

TURKEYS

BOURBON RED TURKEYS—GOOD SIZE and color. Nine eggs, \$3.00; eleven, \$3.50. Mrs. J. E. Bundy, Goodrich, Kan.

EGGS FOR SALE—BOURBON RED Turkeys, S. C. W. Leghorns, Indian Runners, Ducks. There are all from our prize-winning birds. Eleanor Poultry Farm, Brighton, Colo.

FIELD NOTES

Sale of Percherons and Holsteins.
On Wednesday, May 28, H. N. Holdeman, Meade, Kan., will sell five registered Percherons—three stallions and two extra good mares two to eight years old; also 25 Holstein cattle—sixteen cows and heifers and nine bulls. This is an opportunity to buy the best as Mr. Holdeman is selling a herd he has been fifteen years building up. Remember the date. Sale will be held at the fair grounds at Hutchinson, Kan.

Tripps Offer Fall Boars.
This issue of Kansas Farmer has the announcement of T. A. Tripp & Son, old time breeders and show men located at Meriden, Kan. The Tripp Poland Chinas have won at many of the leading fairs and always in competition with the best herds. The boars offered are of last October farrow and are the tops from last fall's crop. They are the last sons of the splendid boar, Mastery.

Seventy-Five Berkshire Sows.
W. J. Grist of Ozark, Kan., starts a card in this issue of Kansas Farmer, in which he offers 75 Berkshire sows, bred. Mr. Grist is at this date the leading Berkshire breeder of Kansas, his herd numbering over 400, and the breeding is second to none. Mr. Grist keeps his herd immune by vaccination. On the Grist farm is a herd of registered Shorthorns and registered Jerseys, having 20 Shorthorn bulls of serviceable age now on hand.

Copeland's Poland Chinas.
N. E. Copeland, at his farm adjoining Waterville, Kan., is raising a class of Poland Chinas that is meeting with favor wherever they are being tried. He has about 65 choice pigs so far this spring. They are mostly sired by Copeland's Hadley, a grandson of Big Hadley. Others are by a son of Designer. Mr. Copeland also has a fine lot of last fall boars and gilts on hand.

Making Progress.
Brown Hedge, Poland China breeder located about six miles south of Whiting, Kan., and near Straight Creek Station, has one of the good Poland China herds to be found in his part of the state. Mr. Hedge enjoyed a fine trade last season and has at this time about 40 choice spring pigs nearly all sired by his good breeding boar, Expansion Wonder 2d by Expansion, and some extra good litters by his previous herd boar, a son of Long King's Best. These pigs are out of big sows by such sires as Expansion C. Grand Look, Prince Hadley, etc. Mr. Hedge is well located for the business, his farm being slightly rolling and having other natural advantages such as shade and running water.

Witte's Direct Engine Selling.
A catalog of exceptional general interest to gasoline engine users is that of the Witte Iron Works Company, Kansas City, Mo., just issued. We take special interest in this book because it was written and issued by Otto Barth, formerly advertising manager of Kansas Farmer. The catalog not only announces the Witte plan of selling engines direct to the user, describing the construction and uses of the several types of the Witte engine, but is so complete in its detail that it cannot help but be highly instructive to engine users who are anxious to know the methods of engine construction, operation and repair. This is one of the many catalogs published by Kansas Farmer advertisers which catalogs

are free for the asking and which have between their covers much information of general value aside from that with reference to the particular make of commodity advertised. Write the Witte Iron Works Company, 1602 Oakland Avenue, Kansas City, Mo., for Catalog No. 43.

Branle's Dispersion Sale Was Good.
The C. L. Branle dispersion sale of Poland Chinas held at Hiawatha, Kan., May 7, was well attended and good prices were received. The offering lacked fitting and the sale would have been expected to be what it would have been if held at a more seasonable time of the year. The bred sows and gilts sold for an average of about \$50, and the younger stuff, including spring pigs, sold for prices ranging from \$8 to \$15. O. R. Strauss of Milford, Kan., topped the sow offering on No. 14, a very large sow by Union Leader, buying her for \$86. The herd boar, O. K. Lad, went to Roy Johnson of South Mound, Kan., at the very low price of \$161. Following is a partial list of buyers and prices paid:
1—Roy Johnson, South Mound.....\$161.00
2—H. C. Rogers, Stockdale.....40.00
3—(Sow) H. C. Graner, Lancaster.....63.00
4—H. B. Walter, Effingham.....51.00
5—Joseph H. Orr, Leavenworth.....50.00
6—Joseph H. Orr.....63.00
7—H. B. Davis, Hiawatha.....32.50
8—J. W. Anderson, Leonardville.....59.00
9—O. R. Strauss, Milford.....86.00
10—S. B. Amcoats, Clay Center.....60.00
11—H. F. Prim, Perdue Gap, Ark.....24.00
12—O. B. Clemerson, Holton.....24.00
13—H. L. Hayes, Beelington, Va.....29.00

Jersey Calves for Sale.
An Arkansas breeder, W. R. Draper, offers Jersey calves for sale in this issue of Kansas Farmer. These calves are priced low—only \$15 to \$25—all from heavy butter fat producing dams, solid colors, and will grow into high-priced dairy stock within the year. If you are looking for new Jersey blood, please hunt up Mr. Draper's calf in this issue and write W. R. Draper, White River Stock & Fruit Farm, Springdale, Ark., kindly mentioning Kansas Farmer.

Walter Hildwein, Fairview, Kan., has sold all of his fall boars. In this issue of Kansas Farmer Mr. Hildwein makes announcement of his fall sale, October 29. Mr. Hildwein's herd is headed by Gold Standard Jr. and Wonder Ex, and his herd sows represent the best blood lines of the breed.

Col. F. J. Zaun.
Col. F. J. Zaun, the live stock auctioneer of Independence, Mo., has renewed his card in Kansas Farmer and will pay special attention to live stock sales. Colonel Zaun has fitted himself for the auction field and is eminently qualified to render perfect satisfaction to any who may employ him. He has sold for the past 15 years for the best breeders in the corn belt, and if you want an able auctioneer for your next sale, Colonel Zaun for date. Kindly mention Kansas Farmer.

New Tractor for Small Farm.
There is no question but that the comparatively small tractor—that of four to six-horse traction power and of corresponding price and adaptability to both field and road work—is the demand of the present day. Such tractor is required by the 160-acre and smaller farmer—the 320-acre and larger farmer is now provided with a tractor of such horse power and size as he can well afford. The latter was demonstrated by the letters submitted by Kansas Farmer a few weeks ago to some 300 tractor users. In the same letters we asked the question whether or not in the correspondents' judgment there was a demand for the smaller tractor. Almost without exception our correspondents stated that in their opinion a four to six-horse power tractor—this on the draw-bar—would sell readily to the quarter-section farmer. Manufacturers are devoting their attention to the development of such a tractor. One is this week advertised in these columns. We urge a reading of the advertisement whether you are interested in tractors or not. It is one of the many educational advertisements appearing in Kansas Farmer. The idea of this tractor was new to the editor and in all probability it will be a large majority of our readers. This engine is a sure enough novelty. It is driven by means in the first place, and in the second place is a machine which would seem to have a peculiar adaptability to practically all lines of farm work. We suggest that readers address the Detroit Tractor Company, Detroit, Mich., for their catalog and get full information, even though the idea of purchasing a tractor is not now entertained.

Fifty Duroc Bred Sows and Gilts.
On June 7, C. W. Parsons, near Harper, Kan., will offer at public auction 50 head of choice Duroc sows and gilts. The tried sows are large, roomy matrons, and of the blood lines of the Ohio Chief, Colonel Goldust and Hellen Wonder families, and bred to a trio of boars of very high-class breeding. The gilts are of the most fashionable breeding and are well grown out. They are large and roomy and will make large, useful brood sows. A number of the older gilts of the fall yearlings are bred to the great herd boar, a litter mate to Superba The Professor and a litter mate to Superba that sold for \$1,500 in Mr. Brown's last sale. Monarch Chief is not only one of the best bred hogs in Kansas, but he is one of the best individuals doing service that we know of. Sows or gilts bred to this great boar should be in demand. We ask all lovers of the Duroc hog to send and get a catalog and arrange to attend this sale or send a bid on a good sow or gilt. They are a useful lot and are ready to make money for anyone who will care for them. Please read quarter-page ad in this issue and arrange to attend. Remember the date is June 7, at Harper, Kansas.

Glenwood Shorthorn Sale.
After 20 years of successful breeding of Shorthorns, C. S. Nevius, Chiles, Kan., is offering at public sale on June 6, 50 head of the best cattle ever sold from this farm. Ten bulls and 35 females are listed, and all represent such breeding as should meet with favor. It is practically an all Scotch offering, with Searchlight, Searchlight Jr., Prince Favourita and Prince Valentine 4th. The Nevius herd bulls that have headed his show herds and sired his better show cattle, represented as sires or the bulls to which the females are bred. The offering of bulls is decidedly attractive, as Mr. Nevius lists two that are probably the superior of any pair that have sold recently in this section, and the remaining eight are valuable stock bulls. The pair referred to are junior yearlings calving in January, 1912, and are bulls that should be carried on the fall show. Searchlight Bloom is a roan March Violet, that was shown as a calf last year, standing well up in the money at all shows. He has improved steadily, and breeders looking for a roan with character, thickness, brevity of leg, depth of body, even quarters, a good back, and one that will continue to do well, should not overlook this young bull. Note Mr. Nevius's advertisement in this issue and attend the sale.

Duroc Jersey Bred Sows and Gilts

50 HEAD AT PUBLIC SALE AT HARPER, KANSAS 50

SATURDAY, JUNE 7, 1913

I will sell at public sale at sale barn in Harper, Kan., 50 head of tried sows, spring and fall yearling gilts. All are bred to farrow last of August and first of September. A number of the gilts are sired by Chief Brazer, an Ohio Chief line-bred boar. The tried sows are of the Ohio Chief, Colonel Golddust and Hellen Wonder families, and a good useful lot to raise pigs. They are bred to my trio of herd boars, Monarch Chief, Chief Blazer and Oom Paul Chief. They are a large growthy lot of gilts, both spring and fall yearlings. Every one is a money maker if given a chance. Monarch Chief is sired by The Professor and a litter mate to Superba that sold in Browning's sale for \$1,500. Monarch Chief is probably one of the best Duroc boars in Kansas today, both from a breeding standpoint and as an individual, and has few equals. Send for catalog and come to my sale on June 7 and be your own judge. If you cannot attend the sale, send a bid to O. W. Devine, representing Kansas Farmer, who will buy for you. Sale right in town, and I would be glad to meet you.

Auctioneer: **LAFE BURGER**
Wellington, Kansas

C. W. PARSONS, HARPER, KANSAS

POLAND CHINAS

POLAND CHINAS

WRAY & SON'S BIG TYPE POLAND CHINAS

Herd headed by Sterling Prince, one of the largest and best 2-year-old boars of the breed. Assisted by Chief Price's Wonder, one of the best sons of the great breeding boar, Chief Price Again. Young stock for sale. Better than your grandpa ever raised.
B. T. WRAY & SONS, Hopkins, Mo.

FIFTEEN CHOICE FALL BOARS FOR QUICK SALE

Sired by Expansive Chief, Expansive Wonder and Long King's Best. Many of them out of sows that have been producing herd boars for the past few years. I need the room and am pricing these boars at prices that will move them soon. The closest inspection invited.
H. B. WALTER, EFFINGHAM, KANSAS.

THE OLD-FASHIONED SPOTTED POLANDS.

One hundred and fifty pigs for sale at \$25 each, if taken by July 1. Can furnish pairs and trios, not akin. Pigs sired by biggest boars of the breed. All registered free of charge.
J. D. GATES & SONS - - - - - RAVENWOOD, MISSOURI.

BIG BONED POLAND CHINA BOARS

Outstanding fall boars weighing 225 pounds and over, sired by such boars as Belle Prince, Dude's Jumbo and Sterling Prince and out of Peter Sterling, Pawnee Giant and A Wonder sows. Some outstanding herd header prospects. Priced to sell quick. Description guaranteed. Address
V. O. HUNT, RAVENWOOD, MISSOURI.



ADVANCE 60548

The mammoth 2-year-old grandson of the great Expansion is the sire of the great line of spring pigs I am offering for sale at weaning time. Either sex. The dams of these pigs are a splendid bunch of brood sows of the Black Mammoth breeding. None better in big-type Polands. Write for descriptions, breeding and prices. Book your order early and secure choice, mentioning Kansas Farmer.

PAUL E. HAWORTH, Lawrence, Kansas.

BIG POLAND BOARS

TEN FALL BOARS, ready for service. Price, \$25 and \$30. Good ones, sired by Wedd's Long King, Wedd's Expansion and Big Logan Ex. Order quick. These bargains won't last.
GEO. WEDD & SON, Spring Hill, Kan.

Sold Out—More to Sell

Our fall boars are now all sold. We are looking orders for the finest bunch of spring pigs we ever raised. If you want the great big-boned, Spotted Poland Chinas, write us. Also young Jersey bulls and heifers.

THE ENNIS FARM, Horine Station, Mo.
(30 Miles South of St. Louis.)

SIX CHOICE SEPTEMBER BOARS

Sired by a son of Big Orange and out of large sows. Immune and ready for hard service. Also fall gilts, bred or open, and a lot of spring pigs, both sexes, and one Shorthorn bull 16 months old. Visitors always welcome.

S. B. AMCOATS, Clay Center, Kan.

BUY EARLY AND SAVE EXPRESS.

Fifty big kind Poland China pigs, either sex, sired by Ott's Big Orange, Big Ben and other great boars. Booking orders now to ship when old enough to wean. Pairs not related.

J. F. FOLEY, Oronoque, Norton Co., Kansas.

FALL POLAND CHINA BOARS AND GILTS.

We still have some extra good fall boars and will price them rather low in order to sell out and make room for spring pigs. Also fall gilts, bred or open.

HUBERT J. GRIFFITHS, Clay Center, Kan.

SELECTED POLAND CHINA BOARS.

Five October farrow, strictly tops, the last pigs of Mastery, the great Expansive and Hellen Wonder boars. Dams by Big Tom and Prince O. K. Weight, 200 pounds each; 6 to 7-inch bone; 42-inch or more heart girth. Low prices for the kind.

F. A. TRIPP & SONS, Meriden, Kan.

Registered Poland Chinas

Three sows with pigs.....\$30.00 each
Six gilts.....15.00 each
Four boar pigs.....10.00 each
Above prices made for quick sale. First money takes them.

LAKE VIEW FARM

459 Victor Bldg. Kansas City, Mo.

ERHART Big Type Polands

Choice spring pigs for sale, priced to sell. Everything guaranteed as represented.
A. J. ERHART & SONS,
Beeler, Ness County, Kansas.

Hildwein's Big Type Polands

Herd headed by Gold Standard Junior and Wonder Ex. Herd sows representing best blood lines. Fall sale October 29.
WALTER HILDWEIN, Fairview, Kan.

SPRING PIGS, 100 DAYS OLD.
Forty big-type Poland pigs, sired by Big Four Wonder, grandson of A. Wonder, and Orange Model 2d by Big Orange. Will sell them until they are 100 days old for \$25 each. Pairs, not related, \$40. First choice with every sale. Inspection invited.
L. L. CLARK, Meriden, Kansas.

POLAND CHINA BOARS

20 Extra Good Fall Boars, ready for service, sired by Big Logan Ex. and Missouri Metal, out of my best sows. Prices reasonable. Write me.
L. V. O'KEEFE, Stilwell, Kansas.

BIG ORANGE FALL BOARS FOR SALE.
Six good ones, sired by Big Orange Again by Big Orange. Dam of young boars a great sow by Chief Price. Strictly big Iowa breeding. Immune from cholera and priced low for the kind. Also few bred gilts, same breeding. A. J. Swingle, Leonardville, Kan.

IMMUNE BRED SOWS AND GILTS.
Big, smooth and prolific Poland Chinas, bred for August and September farrow to great boars. Also immune spring boars ready to ship.
J. L. GRIFFITHS, Riley, Kansas.

POLAND CHINA GILTS FOR SALE.
20 - Yearling gilts, bred or open. Sired by a son of A. Wonder and bred to a son of Big Orange. Five fall boars by a son of A. Wonder, at reasonable prices.
THURSTON & WOOD, Elmdale, Kan.

ALBRIGHT TYPE POLANDS FOR SALE.
Forty head of choice fall boars and fall gilts, bred or open, and 65 spring pigs, all sired by Cavett's Mastiff, one of the best boars now in service. Only the best of individuals offered. Inspection invited.
A. L. ALBRIGHT, Waterville, Kansas.

FALL BOARS FOR SALE

Of the large type, with quality. Heavy boned, well balanced pigs at right prices.
JAS. ARKELL, Route 4, Junction City, Kan.

POLAND CHINA HOGS—15 fall boars and 10 fall gilts sired by the champion boar at American Royal, 1911, priced to sell reasonable.
G. M. Carnutt, Montserrat, Mo.

When writing advertisers, please mention Kansas Farmer.

WESTVIEW JERSEY FARM

HERD BULLS—Financial Countess Lad, grand champion Jersey bull, Dairy Cattle Congress, Waterloo, Iowa, 1912, the largest Jersey show ever held in the United States. Sold for \$2,500 when 90 days old, and again as a two-year-old for \$5,000. Dam, Financial Countess 155100, the 1908 national butter champion, 13,248 pounds milk, 935 pounds 10 ounces butter.
Ruby Financial Count 87211, a grandson of Financial King, dam a Register of Merit granddaughter of Financial King; milk record of 56 pounds per day.
Herd founded on Finance, Interest and Gumboge Knight families. Cows milk, as three-year-olds, 40 to 55 pounds per day. Every cow in herd on test. No dairymen ever considered a cow beautiful unless she is a heavy producer. Constitution first, production second, beauty third.

J. E. JONES, PROPRIETOR, NOWATA, OKLAHOMA.

DUROC JERSEYS

Choice Fall Gilts

By Tatarax and G. M.'s Tat. Col. at very reasonable prices. Will keep them and breed them for fall litters.
Hammond & Buskirk, Newton, Kans.

FOR SALE—Duroc March pigs, \$9.00 and up, by Model Again, Long Lad, or Tatarax Box. Five railroads. **R. W. BALDWIN, Conway, Kan.**

PERFECTION STOCK FARM DUROC JERSEY HOGS.

For Sale—20 Spring Duroc Jersey gilts and spring boars, pairs and trios, not related. We sell at farmers' prices. **CLASSEN BROS., Union, Okla.**

CHOICE DUROC JERSEY FALL BOARS
Sired by Dreamland Col. Some herd boar prospects. Selected and priced to move them quick. Also few fall gilts bred or open. Everything immune.
LEON CARTER, Asherville, Kan.

TEN DUROC JERSEY FALL BOARS
Good individuals and ready for hard service. Low price of \$25 each because I am short of room. First choice with first check. Descriptions guaranteed.
DANA D. SHUCK, Burr Oak, Kan.

QUIVERA HERD OF DUROC JERSEYS
A few choice summer boars and gilts by Quivera 106611 and M. & M.'s Col. 111095, for sale.
E. G. MUNSELL, Route 4, Herington, Kan.

DUROC JERSEY BOARS
Of serviceable age. Also 40 fall pigs selected both sexes, at reasonable prices. Inspection invited.
HOWELL BROS., Herkimer, Kan.

DUROC GILTS.
Fall gilts, bred or open. Also spring pigs, either sex, at current prices.
R. F. WELLS, Formoso, Kan.

HAMPSHIRE HOGS

ECLIPSE FARM HAMPSHIRE.



A. M. BEAR,

Spring pigs, Gen. Allen, Pat. Maloy, Messenger Boy blood, three of the great show boars of the breed.
Medora, Kan.



S. E. SMITH, LYONS, KANSAS.

HIGH QUALITY HAMPSHIRE.
Couple of gilts bred to T. R. Fancy and to A. M. Bear's Eudora John, also fine young boar.

Vansell Polands and Shorthorns.
M. C. Vansell & Son, Muscatine, Kan., one of the oldest firms engaged in the breeding business, are well fixed with good stock at this time. At the head of the Shorthorn herd is the beautiful snow-white bull, Dale's Cumberland, by Cumberland's Last and out of a Dale cow. He has lots of scale and feeding quality and is proving a great success when mated to the Scotch and Scotch-topped cows in the herd. There are about 100 Polands on the farm, about 75 of which are spring pigs.

The Anderson Manure Loader.
The Anderson Manufacturing Company, Osage City, Kan., is advertising in this issue a new manure loader which does away with handling manure by hand. This is a new, distinctive feature in the manure loader line, and anyone interested should write at once to this company for their circulars, which explain how you can load constalks or green manure as easily and quickly as rotted manure, without any hard work. This machine is priced within the reach of all and should be investigated by all interested parties.

BERKSHIRE HOGS

75 REGISTERED BERKSHIRE SOWS
For Sale, sired by Danesfield Duke 10th by Berryton Duke Jr. and Artful Champion by Rival's Champion. These sows are high-class individuals and all trace direct to the great boar, Baron Compton Imp. They are bred to Robin Hood Premier, one of the few line-bred Black Robin Hood boars now living, and Ajax, a son of Rival's Lord Premier. Four hundred head in herd.
W. J. GRIEST, Ozawie, Kan.

OHIO IMPROVED CHESTERS

WOLFE'S O. I. C. SWINE.
Large, prolific kind, March and April boars. Gilts bred or open. Fall pigs. Prices low. Pedigrees free. Write your wants.
D. W. WOLFE, Route 2, Carrollton, Mo.

O. I. C.
For Sale—Two extra good fall boars; also spring pigs, either sex. Prices reasonable. Write me your wants. **R. W. GAGE, Garnett, Kan.**

AUCTIONEERS.

LEARN AUCTIONEERING

At the world's greatest school, and be independent. Write today for free catalog. **Jones National School of Auctioneering, Washington Building, Chicago.**
Carey M. Jones, Pres.

Col. Jas. T. McCulloch Live Stock and General Auctioneer.
Clay Center, Kansas. Ten years of study and practice selling for some of the best breeders.

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FRANK J. ZAUN FINE STOCK AUCTIONEER
Independence, Mo., Bell Phone 675 Ind. My references: America's Best Breeders, for whom I have been selling for years.
GET ZAUN—HE KNOWS HOW.

Col. W. B. RYAN LEBANON, KANSAS.
Live stock and farm sales auctioneer. The man that gets the high dollar and works for you like a brother.

Col. L. R. Brady Live stock auctioneer. Manhattan, Kansas. Ask about my work.

Col. L. H. Grote Live Stock and General Auctioneer. Morganville, Kan.

Col. C. A. Hawk; Live Stock and General Auctioneer. Effingham, Kan.

Col. Will Myers Live Stock, Real Estate and General Auctioneer. Beloit, Kansas.

Col. N. B. Price Live Stock and General Auctioneer. Mankato, Kansas. Registered Durocs.

JOHN D. SNYDER, Kansas Live Stock Auctioneer. Write or wire for date. Hutchinson, Kan.

Col. J. H. BROWN Live Stock Auctioneer. Oskaloosa, Kan.

Col. N. E. Leonard Live Stock and General Auctioneer. Use up-to-date methods. Pawnee City, Nebraska.

HOLSTEIN CATTLE AND PERCHERON HORSES

To be sold at Fair Grounds, Hutchinson, Kansas
WEDNESDAY, MAY 28, 1913



Five Registered Percherons—Three Stallions and two extra good Mares, 2 to 8 years old. Twenty-five Holstein Cattle, consisting of sixteen cows and heifers and nine bulls. All pure-bred and registered except four head, which are high grades. There is no better breeding, representing Colantha, Gerben, DeKol, Pieterje and Parthenia. All tuberculin tested and each animal has health certificate and is guaranteed as represented. Five months time will be given on approved note. Remember, the date is May 28, and at Fair Grounds, Hutchinson, Kansas.

H. N. HOLDEMAN, MEADE, KANS.

AUCTIONEERS.

Col. John D. Snyder, Hutchinson, Kan.; Col. J. I. Stamper, Meade, Kan.

JERSEY CATTLE

Jersey Calves only \$15 to \$25

From heavy butterfat producing dams. Solid colors. These calves should grow into \$150 dairy stock inside one year. Order today and get choice selection from this big Jersey cattle district. Send all orders or inquiry to

W. R. DRAPER,
Owner White River Stock & Fruit Farm,
Springdale, Ark.

Register of Merit Bull—Born May 11, '12. Solid fawn, black tongue and switch. Sire, Flora's Golden Fern 69584 (son of Golden Fern's Lad), sire of four in R. of M. Dam, Sultan's Beauty 231914, R. of M. 1719, test 512 lbs. 1 oz. butter one year, 23 months old at start of test. Daughter of Oakland's Sultan. Sire 3 in R. of M. Second dam an imported granddaughter of Miss Viola, F. S. 9644, H. C. (sister of Noble of Oaklands). Cannot be excelled. Price, \$150.00.
R. J. LINSOTT, Holton, Kansas.

60 HEAD of solid fawn-colored Jersey cows and heifers of fashionable breeding. Will make special prices on car lots. Most of them in calf to "Blue Boy Baron," sired by half brother to Noble of Oaklands. His five nearest dams on mother's side made 102 pounds butter in 7 days. A few light fawn bull calves. **S. S. Smith, Clay Center, Kan.**

REGISTERED JERSEY BULL CALVES

Nice colors and individuals and closely related to noted sires and dams. Low prices for young calves. Also few bred heifers. Farm near town.
Johnson & Nordstrom, Clay Center, Kan.

BANKS' FARM JERSEYS

Quality with milk and butter records. One of the best sons of CHAMPION FLYING FOX, imported, at head of herd. Stock for sale.
W. N. BANKS, Independence, Kan.

WINELAND FARM JERSEYS.

One of the strongest official record herds in the west. For sale, 10 choice young bulls, sired by Imp. "Duke's Raleigh," and other good bulls. Out of cows now undergoing or having authenticated tests. Also, 25 females of different ages. **H. C. YOUNG, Lincoln, Nebraska.**

REGISTERED JERSEYS AND POLANDS. Best strains and individuality. Fed and handled intelligently. Stock for sale always.
O. E. NICHOLS, Abilene, Kan.

JERSEYS FOR PROFIT

AMERICAN JERSEY CATTLE CLUB,
324 W. 23d St., New York.

OXFORD DOWN SHEEP

Largest flock west of Mississippi River. Fifty rams, 100 ewes for sale. All stock sired by imported rams. 140 ribbons at the Iowa State Fair in last eight years. Call on or address, **John Graham & Son, Eldora, Ia.**

OXFORD DOWN SHEEP.

Oxford Down Sheep—Large, hardy, prolific, well covered.
J. H. WALKER, Lathrop, Missouri.

HOLSTEIN CATTLE

MISSOURI A. R. O. HOLSTEIN BULLS.
One 2-year-old, sired by Homestead Girl DeKol Sarcastic Lad, sire of 97 A. R. O. daughters. Dam of this bull made 18.74 pounds butter one week. One 13 months old, sired by Sir Pieterje Lyons Hengerveld, whose dam made 32.20 pounds butter one week. Dam of this bull made 20.65 pounds of butter one week. This is the handsomest bull in the West. These are the best-bred bulls ever advertised at a reasonable price.
FRANK BUZARD, St. Joseph, Missouri.

SUNFLOWER HERD

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