

KANSAS FARMER

For the improvement of the Farm and Home

Volume 51, Number 13. TOPEKA, KANSAS, MARCH 29, 1913. Established 1863. \$1 a Year

THE first horticulturalist was the first man and his first duty was to take care of the fruit trees of Eden.

Adam's first labor remains an instinct in every child—to dig in the warm, fragrant earth, to plant, to tend—and as this is developed he grows in that strength of body and breadth of mind and soul which cannot be obtained elsewhere on earth.

As the groves were God's first temples, so the orchard is His sanitarium and our only earthly symbol of Eden. Trees are the most conspicuous living elements of landscape and most closely touch our humanity. We may infer the attributes of the Diety from our knowledge of human nature, but we gain positive knowledge from the trees.

Fruit was man's first food and yet remains the most wholesome. A lack of farm apples and the environment which belongs with them has driven many a boy to the bananas of the city streets.

—I. D. G.



Nothing is so important as the child, and the "old apple tree" is a potent factor in his training

Studebaker

How Studebaker Automobiles Are Made

The Final Heart-to-Heart Story.

THROUGH four full-page articles which have previously appeared in this paper we have been describing the manufacture of Studebaker automobiles.

From the raw steel we have advanced, step by step, along that wonderful process which builds a Studebaker car. We have told the story in a simple, plain way because it is too big for any other kind of description.

Number of Parts in a Car

Consider for a minute how wonderful an automobile is. Beyond its speed and power, which are familiar to all, there are interesting points seldom recognized. In an average car there are about 1,800 groups of parts, or separate assemblies. There are perhaps 3,000 different parts, and, if you count duplicates, some 6,000 separate parts in a finished car. To build this marvelously efficient machine, approximately 50,000 distinct operations are necessary in order that every part shall be fit for its purpose. With such a conception of what an automobile is, it is easier to understand the immense advantage of Studebaker factories, the largest and best automobile plants in the world. When you buy a Studebaker car you buy not only a high-grade car, but one which is built with extraordinary efficiency and skill.

The Steel Stamping Mill

A characteristic feature of Studebaker methods is our steel stamping mill. Here are stamped from cold steel plates the hoods, fenders, dust pans, clutch spiders, running board braces, and other light strong steel parts in Studebaker cars.

The Studebaker Corporation is the only automobile manufacturer that owns and operates its own steel stamping plant. The initial expense was high, but the results are profitable, because our output is large and the use of strong steel stampings is highly advantageous.

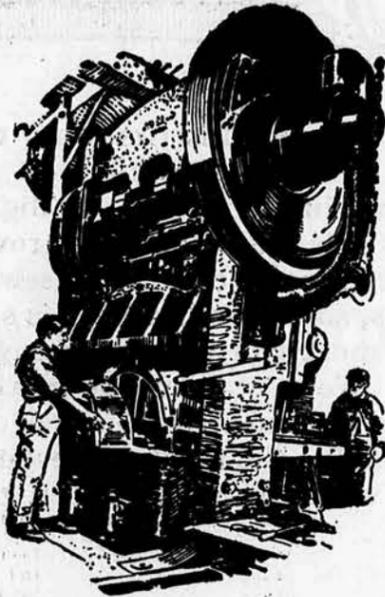
The complete equipment of our stamping mill makes it possible for us not only to put the highest grade stampings into our cars, but by the use of special dies we are enabled to make distinctive and attractive designs. The crown-shaped fenders on the Studebaker "35" and Studebaker "SIX" are examples. These fenders, up to the present time a feature of foreign cars only, are today being used on Studebaker cars, and one high-priced car, alone in the American field. Not a rivet or beading shows along the entire length of these fenders, and the ornamental crown design serves a useful purpose in converging mud thrown against it by the wheels, and serving to prevent the mud from being splashed against the sides of the car.

Enameling
Not only do we stamp our own fenders from the sheet steel, but the glossy black enamel is baked on them in our own huge ovens. The vibration of many thousands of miles travel will not check or chip off this enameled surface.

It is in such methods as these that the quality of a Studebaker car is unqualifiedly assured, while at the same time costs are brought low.

Studebaker Inspectors

Every buyer of a Studebaker car has his direct representative at the factory. There are 200 of these representatives,



This gigantic machine is the steel stamping machine which makes it possible to equip Studebaker cars with beautiful fenders.

whom we call inspectors, and it is their duty to see that Studebaker cars are in perfect order before they are shipped. Not a car leaves the factory before one of these men has supplemented all the previous inspections, by a final examination to which the inspector must sign his name. These final inspectors, your representatives, are far more critical than you yourself would be, because they are expert automobile men. Their responsibility is to represent you.

A Summary

Let us now summarize the main points of this big, true story of Studebaker manufacture.

The Raw Material

All the iron and steel which enters Studebaker plants is made to our own specifications and thoroughly tested in our laboratories before we use it. These laboratories are wonderfully exhaustive and complete. No university possesses more efficient equipment.

Studebaker Shops

Raw material enters Studebaker manufacture through four main opening channels.

1. The Forge Shop, with 40 hammers,

each of which weighs upwards of a ton.

2. The Foundry, where molten iron is cast in exact molds.
3. The Steel Stamping Mill, which presses cold sheet steel into useful forms.
4. The Heat Treating Rooms, where 40 cavernous ovens bake and temper every vital steel part as a housewife bakes her bread.

Beyond these are myriads of machines, each for its special purpose, and many accurate within 1-1000th of an inch. We build also our own bodies and tops complete.

Expert Workmen

Ten thousand trained workmen build Studebaker cars. They are each skilled in special tasks.

Engineers

Back of the factories are a staff of engineers who are constantly at work testing out new methods and insuring the full value of Studebaker cars. They prescribe wide margins of safety in the specifications of every part.

Purchasing Agents

Through its immense buying power the Studebaker organization purchases material at rock bottom cost. Where a small manufacturer buys in the thousands we buy in the millions. All this saving is represented in the price of Studebaker cars.

And now after we have referred to material, plants and workmen, there are three salient facts we hope will linger in your memory.

First—Manufacture

Studebaker quantity manufacture makes it possible to manufacture a better car for less money than can possibly be done in any other way. Studebaker



The Scleroscope test, where the hardness of metal is perfectly measured—it is one of the many tests that Studebaker parts must measure up to.

cars are built complete in the largest and best factories in the industry. They are wonderfully good cars at unequalled prices.

Second—Service

Studebaker service is generous and exceedingly effective. In 30 branches all

over the United States and with hundreds of Studebaker dealers, repair parts stations are constantly maintained for the convenience of owners. The original Studebaker guarantee is liberally interpreted and every attention is given Studebaker owners by our dealers. If in time a repair part should be necessary it can always, no matter how old the car, be quickly obtained at a most moderate cost. A Studebaker car could be purchased by parts and assembled at only the price of the car plus a small percentage for extra expense in handling. In other words, when you buy a Studebaker you are sure of long-continued service and good treatment.

Third—Reputation

Back of every Studebaker car, explaining and warranting its quality, stands the name Studebaker. It represents a reputation won over 60 years of successful business and fair dealing. Such a reputation we guard and uphold as a most priceless possession. Today that name is stronger than ever, and the man who buys a Studebaker buys sure satisfaction.

In this series of advertisements we have taken you into our confidence. We have talked with you as with old friends. We have a tremendously successful business, but no secrets. If any question should arise in your mind concerning the merit of Studebaker cars, write to us. You will have a full and frank reply.

Most of all, we hope that we have gained your confidence. It is confidence and mutual trust that really makes the world go "round." It is because Studebaker cars are the product of the honest and efficient industry of thousands of skilled men that we have come to you and told you frankly how Studebaker cars are built.

As long as you are interested in automobiles we want you to be interested in Studebaker cars, and we in turn will reward that interest by continuing to build high-grade automobiles at prices no reasonable man can ignore.

As you think about this automobile question remember two things.

1. Studebaker cars are built in the largest and best factories in the industry.

2. The man who deals with Studebaker never makes a mistake.

These two axioms sum up all the automobile buying wisdom any one needs to know. Remember them today, next summer, next year and whenever the automobile question comes to your mind.

Send for the Proof Book

If you have not already secured our Proof Book, send for it now. It describes more fully than we have been able to do in these articles, how Studebaker automobiles are made, and gives much information valuable to those who are interested in automobiles. We are glad to send it without charge. It is completely illustrated and you will find it well worth your while.

Send the coupon now.

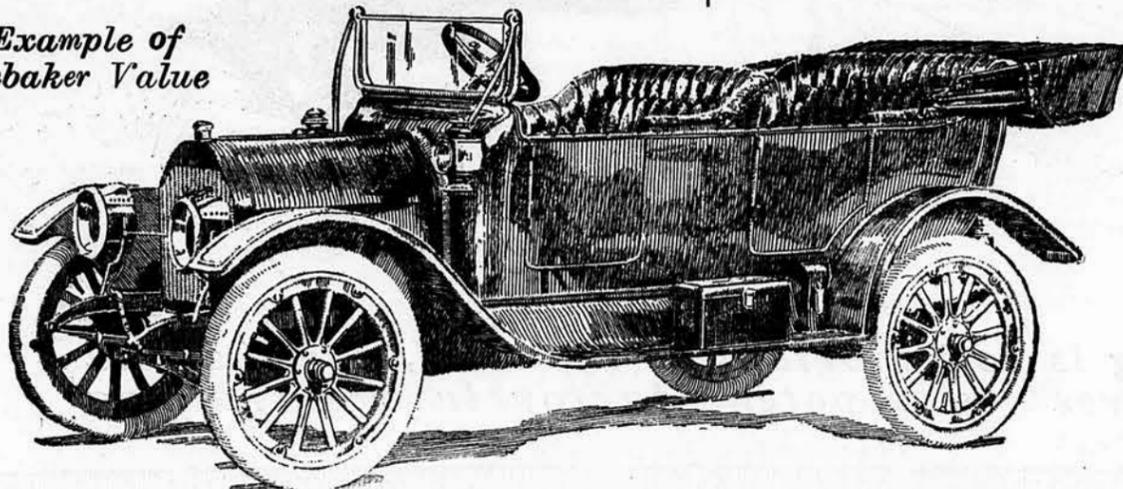
THREE GREAT CARS

- Studebaker "25" Touring Car, \$885
5 passenger—Gas starter
- Studebaker "35" Touring Car, \$1290
6 passenger—Electric lights, electric self-starter
- Studebaker "Six" Touring Car, \$1550
6 passenger—Electric lights, electric self-starter
All prices; completely equipped f.o.b. Detroit.

The Studebaker Corporation
Detroit, Mich.

TEAR OFF HERE
THE STUDEBAKER CORPORATION,
Detroit, Mich.
I am interested. Please send me Studebaker Proof Book.
Address _____
Name _____

An Example of Studebaker Value



The \$885 Studebaker "25" Touring Car

SUBSCRIPTION PRICE
 \$1.00 per year; \$1.50 for two years; \$2.00 for three years. Special clubbing rates furnished on application.

ADVERTISING RATES
 30 cents per agate line—14 lines to the inch. No medical nor questionably worded advertising accepted. Last forms are closed Monday noon. Changes in advertising copy and stop orders must be received by Thursday noon the week preceding date of publication.

KANSAS FARMER

With which is combined FARMER'S ADVOCATE, established 1877.

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GUARANTEED CIRCULATION OVER 60,000

OUR GUARANTEE
 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.

ORCHARD OBSERVATIONS.
 The editor of KANSAS FARMER is not a horticulturist. However, he has gone through the world with his eyes wide open and assumes to have drawn reasonably safe conclusions from his observations. We well recall our experience in the planting of a 25-acre apple orchard in central Kansas years ago. Our recollection is well impressed with the resulting failure. However, in this orchard was an occasional tree of the several varieties which was superior to all others in the production of fruit, both in so far as quantity and quality of fruit and regularity of bearing were concerned. In our travels through hundreds of other orchards we have observed the same existing condition. This years ago led us to an inquiry as to the cause of or the reason for this difference in individual trees. We have no doubt but that thousands of farmers have observed in their orchards the same differences, and have wondered why these differences exist. The answer to the question, why, is unimportant since we know that the differences mentioned really do exist and the matter of concern is that of eliminating these individual inequalities.

Every farmer is cognizant of this fact; that when he buys trees for planting he does not know just when the trees will come into bearing, whether all will bear alike, whether all will be even good bearers, whether the fruit from the individual trees will be uniform or even similar, or whether all the trees or only a part will survive his methods of planting, care, climate, etc. This is a condition quite opposite to that of the feeling of the farmer when he buys the foundation stock of a herd of pure bred hogs, horses, or cattle. When the farmer has bought this stock he is fully cognizant of the fact that "like begets like" and he knows that the offspring from these animals will be like the parents, in conformation, meat-producing qualities, etc. He does not have this assurance in the purchase of trees, corn, wheat, oats, etc., although in the case of the grains named such work has been done with satisfactory accomplishments along the line of improvements by selection in breeding, adaptability, etc. It has long been generally recognized that our plants were susceptible to improvement by the same methods of selection and breeding as our live stock. We have been slow, however, to apply these recognized principles to the improvement of our fruit-bearing trees. In citrus fruits the differences in the types of plants and in individual plants within the type, have been noted, but it is safe to say that these differences are no more marked than in the case of fruit-bearing trees commonly known to KANSAS FARMER readers. The Federal Department of Agriculture has interested itself in the improvement of citrus fruits and for years has had under way definite plans which have had the effect of eliminating many of the unproductive and undesirable trees by re-budding. This work has been carried on principally with lemons and oranges and the experimental work at Corona, Wash., bears evidence of the wisdom and success of propagating trees from selected and superior quality parent trees. This class of work has become known as that of propagating pedigreed trees, which means that the productive ability of the parent tree has been known and regarded and the tree propagated by budding or grafting from this parent tree is, therefore, a descendant from such superior tree and in which the principle that like begets like is as thoroughly fixed in the tree as in the animal family. In this work record performance data has been carefully and accurately kept. The character of the data gives direct and definite evidence not only of the production of the individual trees but also definite, clear-cut figures showing the comparative commercial quality. Kansas is proud of the distinction of one of her citizens—J. Moncrief, Winfield, Kan., who has taken up and successfully concluded this same line of work in connection with apples, peaches, pears, plums, and the several varieties of each. He has spent

much time and an enormous sum of money in investigation and in propagating trees to prove the theory that our fruits may be improved and desirable qualities permanently and surely perpetuated as have been the best qualities in our several kinds of live stock. Mr. Moncrief's investigations and labors have not been made from the standpoint of the investigator for investigation's sake, only, but from the standpoint of usefulness in a commercial way.

The details of the methods of propagating pedigreed fruit trees will not be of general interest to KANSAS FARMER readers inasmuch as they cannot afford to spend the time and the money necessary to await the results accomplished, any more than in order to obtain a herd of pure bred beef animals of high efficiency would the farmer begin with his scrub stock and grade up. He would begin by the purchase of animals of pure breeding and of such type as he desired, and so escape the long years of experimentation and of doubtful accomplishments. The orchard planter is interested, we regard, therefore, only in knowing that there are pedigreed trees the performance record of ancestry of which is fully known, that the trees propagated from such ancestry possess the absolute characteristics of that ancestry both in so far as quality and quantity of fruit is concerned, and as to the age at which trees will come into bearing, and with full knowledge of uniformity and adaptability of the trees bought, to the conditions under which they are to be grown.

Orcharding as a business, has in Kansas been only begun. It has had its ups and downs assignable to various causes. The proper methods of cultivation, the proper pruning, the control of insect pests, are now and have for a number of years been well understood. The matter of planting trees of known producing ability and of early fruiting, has, as above stated, not had attention. This is a condition to be compared with the proper feeding and housing of our live stock without any regard to its proper breeding—a situation under which advancement in improved live stock would be impossible, and a situation which no wide awake, up-to-date farmer would consider as good practice. It is within the ability of every Kansas orchard planter to procure trees from which certain definite, well-known results can be obtained with the same degree of security as in the case of live stock or our principal grains. The next step of advancement on the part of the orchard planter is, in our judgment, that of buying fruit trees propagated from the best of parent stock only. The next important step in Kansas orcharding will be that having to do with the marketing to the best advantage of the fruit produced. Such a promising industry as the growing of fruit cannot be held in check in a state so admirably adapted to it as is Kansas and in a state in which farmers are so generally disposed to plant orchards as are our Kansas farmers.

That the principles for improving our fruits as related above command the respect of substantial scientists is shown by the following statements from well known experts:

Professor L. H. Bailey, the leading authority of this country on fruit growing, says: "We know that scions or buds tend to reproduce the character of the tree from which they are taken. A gardener would never think of taking cuttings from a rose bush or chrysanthemums, or a carnation which does not bear flowers. Why should a fruit grower take scions from a tree which he knows to be unprofitable?"

A. D. Shamel, of the United States Bureau of Plant Industry: "I believe that buds for propagation should be cut from carefully selected trees after the behavior of these trees has been definitely determined. We have some evidence showing that about 25 per cent of the trees in our established orchards are off type and wholly undesirable—in some

orchards as high as 50 per cent. About 10 per cent of standard type trees studied are consistent producers of the highest grades of fruit. These we consider the real mother trees, worthy of propagation."

Ernest G. Walker, of Arkansas Agricultural Experiment Station: "My own experience leads me to believe that the propagation of trees from trees of good bearing habit and record is a good thing and much preferable to the method sometimes used in getting scions from the so-called orchards."

Colorado Agricultural College: "The man who is interested in his bearing orchard has early learned that the individual trees in the plantation show a great variation, especially in productive-ness, and very often in the size, color and quality of the fruit. There are trees that never bear well, and scions from such trees will no doubt produce trees very much like them. No doubt many growers have some particular tree in their bearing orchard that is better and nearer their ideal than all others. By choosing grafting wood from this tree, a young orchard may be grown as near like it as possible."

Kansas will be represented at the Panama-Pacific Exposition at San Francisco to the fullest extent that a \$40,000 appropriation will permit. Whether or not \$40,000 so expended will give Kansas value received will depend upon the manner in which the money is expended and the kind of exhibits placed and advertising matter gotten together for distribution. This, like every other advertising scheme, depends upon the efficiency of the work done. It is possible to make this amount of money, judiciously expended, accomplish as much good as two times the amount expended in a less efficient manner. The appropriation marks only the beginning of the important work of a satisfactory Kansas showing at this exposition. The important matter now is that of securing a commission whose business it will be to expend this sum wisely and judiciously. A bill appropriating \$10,000 for the San Diego exposition failed in passage.

If anybody thinks it is a snap to make a profit on land worth \$150.00 an acre he has another thing coming. It can be done and is being done on very much higher priced land. This is where the silo comes in. It saves nearly half the corn crop which would otherwise go to waste, and it furnishes better feed and more of it for the live stock than can be secured in any other way. Besides this, the silo is the best weed destroyer that has yet been discovered. A corn binder takes corn, weeds and all and converts them into the best feed that it is possible to provide for cattle in winter and the weeds do not hurt the silage if they are not too abundant. Mature corn should always be chosen as it has a greater amount of dry matter and the more dry matter one can raise per acre the more feed one gets out of his crop. The dry matter in a mature crop is more digestible than that in an immature crop and there is much more of it.

The farmers' institute has evolved the boys' institute, a number of which latter will be held in Kansas this spring. The man who is guiding the farm operations is busy, and in many instances feels that it is too late to revise his way of doing things. The boy of today is the farmer of tomorrow. His education and direction is important. Let us boost the boys' institute. It is a good thing.

The Shawnee Alfalfa Club is negotiating with Mr. Bert Ball, Secretary of the Crop Improvement Committee of the Chicago Board of Trade to give his famous illustrated lecture on the County Farm Adviser.

Other cities can arrange to hear this address at a very slight expense if they will communicate with the Chairman Agricultural Committee, Commercial Club, Topeka. The lecture is free but traveling expenses must be met.

GET BUSY—THAT'S ALL.

A national conference to discuss marketing of farm products, and farm credits, will be held in Chicago, April 8, 9 and 10. The deliberations of the conference look toward the suggestion of remedies for evils now existing in the distribution and marketing of the products of the farm and to the financing of farm business. The objects are worthy. These two topics are commanding much of the attention of those interested in agricultural improvement. Indeed, these topics have for years been of absorbing interest and no less important than now. This is particularly true of the marketing of farm products. The farm credit idea is somewhat new in this country and has as yet taken no definite form.

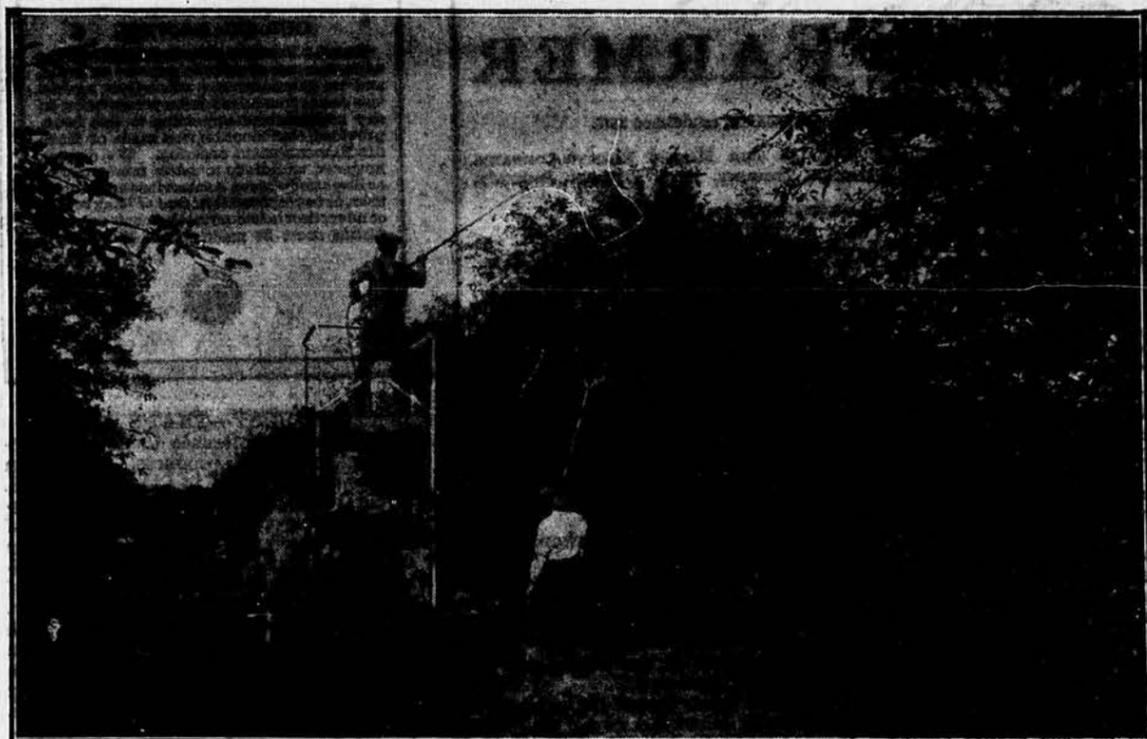
The essentials for the successful marketing of farm products have long been known. Successful plans for the organization of marketing associations have for years been in operation. Further discussion as to plans is surplusage. The way to organize is to organize. The way to get the advantages of such organization is to get busy and do business. No nation-wide scheme of organization is necessary, except possibly for direction and as a source of information and advice. It is well known that marketing association success is built upon community development and interest—the latter important and to be supported by good business judgment, by ample capital and the employment of a business management big enough and sufficiently keen to cope with those interests which have heretofore been regarded as opposed to co-operative selling. Those co-operative marketing associations which have been successful are those organized on a high plane of business management and efficiency. With such management, with a large volume of properly-prepared product to sell, with money to be expended in advertising, etc., and with members who can and will stand the vicissitudes of commercial transactions, success is imminent. These are known conditions of success. The only remaining requirement is to get busy, following closely the lines of the already successful institutions.

The farm credit idea has ample precedent in Europe. We have no examples in this country to follow. It is certain that with us the European conditions do not exist, and we must get at the farm finance matter in a different way. To discuss the ways and means of an adequate farm credit is the part of wisdom. It is certain that we are at this time many years in advance of a practical realization of financial aid for farmers radically different from present available means. While a farm credit scheme is undergoing the process of perfection there are thousands of farmers whose own efforts will so improve their financial condition that they will have forgotten the new credit idea long before it is workable and available.

Intelligent effort, frugality, and a keen sense of the individual's obligation to himself and his family, will go a long way toward the immediate relief of many who feel the need of aid through one or the other or both of the two popular subjects to be discussed in this conference. The deliberations and accomplishments of the Chicago meeting will be watched with interest.

The country school teacher can do vastly more for farm boys and girls in teaching the fundamentals of agriculture if he or she has taken some special work along agricultural lines. KANSAS FARMER feels that school boards should insist upon their teacher receiving some agricultural instruction during the school vacation, and this can be best had at the Kansas Agricultural College beginning early in April. There they will have opportunity to see farm work on the big state farm and will have instructional privileges not elsewhere obtained. If the country school is to fill the place it should it must serve the agriculture of the community, and the first step toward this is a teacher who has had some special training.

KANSAS STATE UNIVERSITY LIBRARY



Orchard Treatment

Pruning and Spraying, By Prof. Albert Dickens, Horticulturalist at K. S. A. C.

SPRAYING OUT-FIT IN ACTION

THE orchardists of Kansas, and for that matter of the United States east of the Rocky Mountains, need to get down to the dairy farm methods of care if they would make their orchards profitable investments. The dairy farmer who would turn the calves with the cows because butter fat was a little low and the price of labor a little high, would not be committing a greater crime than the orchardist who neglects to take the proper care of the orchard.

The man in the dairy business who would allow the cow to raise her calves for five or six seasons and then attempt to make a profitable milk cow from her has a task that would compare with the labor that confronts the man who set out an orchard and cultivated it and no more. The cow man has given his cow feed and shelter but has kept her in the beef business. The orchardist has given his trees cultivation and such soil treatment as would prepare food and insure their growth, but has kept them in the wood-lot business. Instead of being provided with a framework that supports branches upon which fruit spurs may be expected to form and develop fruit buds, he has a lot of fine, smooth, young, bushy branches that have not had sufficient sunlight nor the proper conditions under which they might become bearers of fruit spurs.

The owner of such an orchard comparing his unprofitable trees with the profitable trees of a man who has cared for his orchard during the formation period often jumps to the conclusion that the only difference between his orchard and the profitable orchard is that the owner of the profitable orchard sprays. He writes to his experiment station concerning the subject of spraying. He receives the addresses of spray pump factories and of dealers of spraying materials, a chart showing the composition and time of application of the most successful spraying and gets busy.

The man who knows the least of spraying is many times inclined to think of it as a sure means of securing first-class fruit. It has been demonstrated beyond a doubt that insects and diseases can be largely prevented by intelligent spraying, but spraying cannot put apple spurs where they are not nor increase the amount of light that filters through an almost solid mass of brush and leaves.

Pruning is as necessary as cultivation for the young tree or spraying for the bearing tree. In fact, for a man who is doing good thorough spraying, pruning is a most profitable investment of time and money. To spray a tree well for fungus troubles means to cover every leaf and twig with the spray mixture. The spores that are to cause the infection of apple blotch during late May and early June develop in the tissue of the young twigs and water sprouts, and twigs in the interior of the tree are much more likely to be infested than are twigs that have had the greater amount of light.

Varieties differ much in their susceptibility to the disease known as blotch. Ben Davis and Missouri Pippin are susceptible to blotch and the control of this disease is greatly facilitated by the removal of the water sprouts and surplus tissue. In some parts of the state

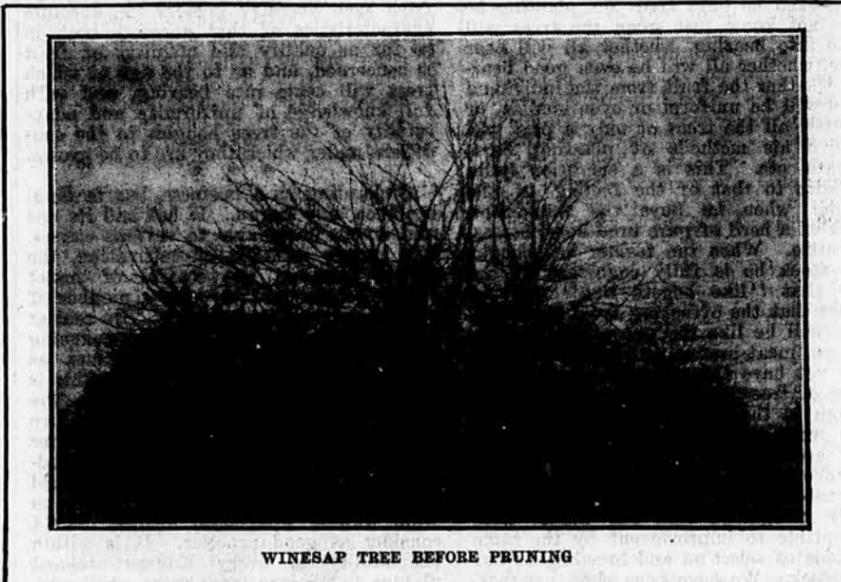
Winesap is affected by apple scab, and in arranging schedule for the different varieties we must consider the disease with which we are to deal. In attempting to control blotch on an orchard of Missouri Pippins, it has developed that Missouri Pippins recover as readily from a heavy pruning as any other variety. In most orchards at the present time, Missouri Pippins that have been unpruned and unsprayed are ragged, unkempt, and have much the appearance of the Missouri Pippin in the picture.

In a number of years experience in a number of Kansas orchards it has been found safe to cut back Missouri Pippins, severely removing the brush and water sprouts and small branches from the inner part of the tree, opening it up for the more economical application of the spray, four or five gallons efficiently covering a tree where before pruning twice the quantity would have been required. This has to a considerable degree removed the tendency of the Missouri Pippin to over-bear. It has greatly increased the proportion of fancy apples in the pruned trees, about 75 per cent were better than number one, while in the unpruned trees less than 40 per cent were better than number ones. The difference in grade alone between fancy Missouri Pippins and number one Missouri Pippins is much more than sufficient to repay the cost of pruning and spraying. After a heavy cutting back in the winter or spring, it is necessary to thin out the new growth during the summer months, and careful work at this time is absolutely necessary to secure a desired form for the tree. Judging from the work so far done, it seems probable that Missouri Pippin trees that have sound wood in the main trunk and branches can be retopped and have a new lease of life that shall give profit to the owner.

Heavy cutting back of the Ben Davis has not been so successful as with the Missouri Pippin. The Ben Davis seems more susceptible to sun scald, and after sun scald is almost certain to be affected

by black rot which forms canker spots conspicuous in many Ben Davis orchards. Summer pruning with a Ben Davis orchard and thinning out of the tops in June has been more successful than the winter pruning. Dead wood and interfering branches may be removed in the winter or early spring, but a Ben Davis tree that has been neglected until it has become a brush heap may be best reformed by beginning with a June

in most localities Winesap has made a very good recovery after moderately heavy winter pruning. In rich soil on vigorous trees there is almost certain to be a growth of water sprouts that should be removed during the summer, but Winesaps that are promising to bear a heavy crop may well be pruned quite severely. The tree noted in the picture the year after pruning furnished a good crop of high-class fruit. The picture



WINESAP TREE BEFORE PRUNING

pruning. Winter pruning judiciously given will help much in forming a tree and reducing the amount of spray necessary, but they have not responded to severe cutting back as well as Missouri Pippins.

Neglected Winesap trees furnish some of the tangled pruning problems—see picture of Winesap before pruning—and

showing Winesap six months after pruning indicates that there is yet some wood that might well be removed, and the following season a light pruning will be given. Winesap has the over-bearing habit, and a thinning in March with the pruning knife is cheaper than thinning in June with a pair of hand clippers.

During the seasons of 1911-'12, well-pruned trees have produced a much better, larger fruit than the unpruned trees, had set more fruit than their moisture supply could support. The apple crop of 1913 must be made or lost during the next three months. The results of work done in many localities is sufficient to guarantee that thoughtful, careful work in the apple orchard is certain to receive substantial reward. Particular emphasis must be placed upon the words "thoughtful" and "careful." Pruning requires the best thought of which the man doing the work is capable. Each tree is a little different problem from the others, and there are characteristics of each variety that must be closely observed. Careful work in making the cuts close to the branches so that the least possible amount of energy will be required to heal the wounds and thoughtful work in removing the branches that will best admit light to the inside of the tree without exposing hitherto protected tissue to the direct rays of the sun. The painting of the wounds with good white lead and oil is also recommended.

In seasons of heavy crops it is only the high-class fruit that, according to the Kansas standard adopted by the last (Continued on page seven)



WINESAP TREE AFTER PROPER PRUNING

CO-OPERATIVE MARKETING

Told By W. R. Martin, The Manager of The Association

THE SOIL of our county seems naturally adapted for producing highly colored fruit of excellent quality, and especially is this true of the small fruits and grapes. We believe it is essential for the fruit grower to be suitably located as to good transportation. We believe it is well to be versed in and conversant with all the diseases and enemies that may attack the orchards and fruits of various kinds. We believe it is well that the fruit growers should understand something of the mysteries of the soil and elements, their digestion and assimilation by plant life; but we believe that it is of still greater importance that the fruit grower should understand how to inspect and properly pack his own fruit, and to be familiar with the best markets, that he may have a just remuneration for his fruit. These last clauses are the basis on which the Wathena Fruit Growers' Association was organized; for instance, a better pack, higher grade fruit, and better returns. After some deliberation, on February 18, 1905, twelve growers, of which I am pleased to say I am one, adopted a set of by-laws and applied to the Secretary of the State for a charter, to organize a corporation to be known as the Wathena Fruit Growers' Association.

The fruit shipping at Wathena prior to our organization was in the hands of five or six firms known as buyers or shippers. These firms sold the grower his crate material, grape and peach baskets, his barrels, etc., on which they made a good profit. The growers did not object to this profit so much as to the tendency of the shipper to decline the market on the least evidence of a threatened over supply.

Notwithstanding a hard struggle, we lived through the season of 1905, handled the fruit of about 30 growers and at the close of the year declared a good profit above all expenses.

The spring of 1906 we increased our capital stock and raised our membership to 100 strong, taking in the best growers of the community.

During this year—1912—our seventh year, we handled 33,000 cases of berries, 23 car loads of grapes, 6 car loads of peaches, 56 car loads of apples, making a net profit on the year's business of \$5,000. In this net profit the fact is not considered that we saved to the growers on crate material and baskets, above \$1200. To illustrate: When blackberries were selling on the market at St. Joseph for 90 cents per crate, on the same day we received to our grower \$1.25 per crate, met our expenses and made a profit above this figure. Our peaches found ready market in Minnesota, Dakota and Colorado points. Our grapes were mostly handled in iced refrigerators, and were marketed as far away as Spokane, Washington.

Each kind of fruit bears its own expenses, its own losses, its own gains; that is, if we sell 10,000 cases of strawberries for \$20,000 and make \$2,000 above expenses, we will declare a profit of 10 per cent on strawberries.

Craftsmen and tradesmen of many sorts and kinds have formed themselves into unions and federations. The fruit growers cannot afford to be behind. In the matter of concentration and organization the more complete the organization the more complete the advantage. Our Wathena Fruit Growers' Association has been fairly successful in its business and has made a good reputation in all the markets where it has done business. We have an organization of about 150 members.

The officers of our society consist of president, vice president, secretary, treasurer and business manager. We have a board of directors of seven members from which we choose the above named officers. We put upon our board of directors men of good judgment, men of recognized business sense and ability. The board of directors hold meetings as often as they think it necessary to look after the interests of the association. They provide the grower with box and package material, which by the way, is an item of great saving to the members. The Wathena Association at this writing, has placed orders for 100,000 berry crate material to be shipped direct from the factory. Before our organization the crate material cost the grower from three to five cents per crate more. The association provides its members with stamping outfits, with stamps with which to put his personal stamp on the end of the crate. It helps to provide its members with pickers. It arranges with the trade to handle the fruit the ensuing season. The business manager knows before the fruit is grown where the bulk of it is to be marketed. Arrangements

are made for refrigerator cars, office help is employed as bookkeepers, stenographers, inspectors and billing clerks at the shipping station.

The business manager and board of directors look after all details of the business, having the authority to attend to it as though it were their own. Our as-

that your fruit is properly loaded and securely braced. Have the agent inspect the car before sealing. See that it is correctly routed. Make all icing and ventilation notations on bill of lading, and have it signed by the agent, and I will assure you that you will have very little trouble. Our association has never



MISSOURI PIPPIN PROPERLY PRUNED

sociation is governed by constitution and by-laws. All fruit to be shipped must undergo a rigid inspection, must be sound, well shaped, well colored and clean. It is one thing to grow fruit, it is quite another thing to market it successfully. Fruit growing is a science. fruit selling is a fine art. In fruit growing one must study climate, soils, locations, varieties, planting, cultivation, pests, remedies, picking, packing, storing, and delivering, and such things.

In fruit selling one must study men, railroad companies, express companies, cities, market conditions, standing of merchants, collection agencies and such things. Hence, your board of directors must be wide awake, thorough and capable. They must have their hands on the wires, their ear at the phone, their eye upon the market, and both feet in the business. They study the markets, get in touch with them, and sell the fruit.

An organization will command more respect than single individual shippers. An organization will be able to distribute the shipments to advantage, while if left to separate individual shippers, some favorite market will be overloaded. Again the berry growers have neither the time nor the opportunity to attend to the shipments and keep posted on prices. Again, while many single shippers are working independently it is much harder to maintain a uniform price on fruit than when shipped and sold by the organization. An association is the only means through which to handle fruit.

In dealing with transportation companies, you will find it very much like dealing with an individual. They appreciate kind and honest treatment and will respond to your wants quickly. Never make claim of a railroad company without you have a just and honest claim to present to them. See that your cars are properly refrigerated before loading. See

presented a claim for a car of fruit that was not paid.

Does it pay to handle fruit on a co-operative plan? We are realizing today about 50 per cent more for fruit than we were seven years ago when our association was organized, and in addition



MISSOURI PIPPIN SIX MONTHS AFTER PRUNING

to that gain we are saving our growers an immense amount of money in the purchasing of our crate material and other supplies. For an example we will say, we paid 10 cents per crate for berry crates complete, delivered at our station. We were informed by members of the St. Joseph, Mo., Horticultural Society

that they paid 14 cents for the same grade of material, shipped from the same mills. They bought theirs through a dealer; we bought ours direct, on a cash basis. Since we organized we have handled about 500,000 berry crates. Just figure the difference, please. Four dollars on the hundred, which would be \$40 on the thousand, and 500,000 cases used.

You readily see we have saved our growers the net sum of \$200,000 in the last seven years on crate material alone. Our little city has also used about 600,000 grape baskets during those seven years, which we paid \$18 to \$20 per thousand for, while our neighbors on the Missouri side of the river were forced to pay \$23 to \$24 per thousand, which would represent another \$24,000, saying nothing about the money saved on barrels, spray material, etc. In addition to the above savings, we have prorated back to our growers a dividend of about \$25,000.

Our members own the largest, most modern, up-to-date building in our city, known as the Fruit Growers' building, which cost \$18,000. The ground floor is occupied by the Farmers State Bank and by Stuart & Bowman, Dept. store and by our general office. The second floor is all offices. Our members have never received less than 7 per cent on this investment. Besides, the building stands as a monument to a worthy cause.

To be successful fruit growers, we must be acquainted with the best varieties—same as the stock raiser is familiar with the best breeds of cattle, of horses, of sheep and of hogs. We must also be informed on the enemies and diseases which attack our fruits, likewise the remedies. In 1906 the grape

crop marketed by the association at Wathena was 30 cars; in 1907, grapes were almost a failure, due to a disease known as the black rot. It was still more manifest in 1908. Black rot is a fungus disease and may be controlled by proper spraying with the Bordeaux mixture or lime sulphur solutions. These diseases and enemies come and go and must be studied. The raspberry is attacked by the anthracnose, the blackberry by rust, the strawberry by rust and moth, the plum by fungus and curculio, the cherry by fungus and moth, the peach by borers, yellows and fungus, and the apple by the moth and fungus and one thousand other things. The fruit growers must be on the alert for all of these pests and must know what to do and when to do it.

The soil elements, the various plant foods, what elements of the earth are essential to the strawberry, the grape, the apple etc., all these should have our attention.

You ask a truck grower of Florida what element of the soil he must use for the growth of lettuce, for cabbage, for pineapple, or grape-fruit, and he is puffed. He not only knows what to use, but how much to use and when to apply it. I believe the time is here when it will pay the fruit growers of Kansas to give this most interesting subject more of their study.

The cultivation of small fruit requires much attention and is tedious. To neglect it for any season, even for a

(Continued on Page Thirteen.)



MISSOURI PIPPIN BEFORE PRUNING

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IMPROVE ORCHARDS

*Propagate Trees From Known Producers—New
But Sound Ideas in Up-to-date Orcharding*



COOPER'S E. WHITE—TRANS-
PLANTED TWO YEARS—FARM
I. J. WAGNER, CEMENT, OKLA.

I HAVE for years noted that the only tendency toward improvement in orchard practice is to take up and boom new varieties of fruits, many of which are inferior to the old varieties and unsuited to the climates in which they are to be planted. Further, such varieties are as a rule, only one generation removed from the seedling and so rarely are equal in quality to the best varieties already grown and which in the first instance were good.

In recent years I have noted a great improvement being made in corn and in other farm crops as well as in live stock, by selection and breeding. For example, the Germans have increased the sugar of the beet about 15 per cent; the protein content of the corn has been increased 15 to 20 per cent, and while these and similar other improvements are going on all around us in almost every line, including the animals, nothing was being done to improve the fruit of trees and orchards. Think of it—a tree is planted, occupies valuable land, is cultivated and cared for for a period of 20 to 50 years; beets and corn live from year to year; live stock is improved only to be butchered in a few years. These latter receive the best of attention, most intelligent care and breeding, while the tree which is with us for a life time, has not been improved and not until recent years has it been given intelligent and scientific attention.

In taking this matter up with a number of nurserymen, I became convinced that the fault did not lie with nurserymen alone, but with the planters of orchards who almost invariably insist upon a low price when making their purchases of nursery stock and very rarely inquire into or show an interest in the quality of the stock purchased. Believing that the old nursery method of propagation was wrong, and more than a hundred years behind the times, I determined to make some examinations pointing to improvement, or get out of the business. Up to this time I had been growing trees much as other nurserymen, aiming to grow good stock, selling wholesale what we had in surplus, and buying of other nurserymen what we were short.

A bad thing from the planter's standpoint was the fact that in the old line of nursery business the scions or twigs from which the scion trees were propagated were almost universally cut from the nursery row—or even worse, from poor trees which were unsalable and which had been lined out for a scion orchard. By this method you can see readily that a large per cent of the grafts were made from watery sprouts which progressive horticulturists understood at once as usually requiring from three to four years to mature fruit buds. Thus, a large per cent of the ordinary nursery stock, especially in apples, was three or four years longer in coming into bearing than it should or would be under skilled handling by scientific methods.

I then began observations in bearing orchards and found that in the best orchards there are a large number of barren trees or trees which bear poor fruit. Almost any orchardist—if you will call his attention to the subject—will tell you that he has observed a certain Ben Davis or a certain Winesap which bore much better and more choice fruit than certain other trees. The law of like begets like has been well established and is as well established in the propagation of fruit



AN IDEAL APPLE TREE FROM WHICH TO BREED

By J. MONCRIEF, Winfield, Kan.

as in animal husbandry. Then why not propagate trees from the best Ben Davis specimen and which is known to be fruitful and of superior quality, instead of continuing to follow the old methods of the past twenty years or more, by selecting scions for the graft from the nursery row and without knowing whether you will obtain fruitful or barren trees?

Following this idea, I began to select scions and buds from trees of superior merit and the results are highly satisfactory and indeed gratifying. My orchards come into bearing earlier than orchards planted from other trees, and besides these orchards have shown a tremendously increased hardiness. I have continued to improve on this plan until I am now growing pedigreed trees and this year had 225,000 two-year-old apple trees in our orchard of which I can give you the pedigree just as a live stock dealer gives you the pedigree of his hogs and cattle.

As an example of the pedigree in the case of trees, which pedigree is not so familiar to the average man as is the pedigree of a bull or stallion, I quote apple pedigrees as follows:

Delicious (Prize)—Buds selected from the best eight trees in a remarkable Delicious orchard of 200 trees. One of these special trees produced four bushels in 1910, (5 years old) and six bushels in 1911. Owner reports this year: "Every marked tree a big success this year again. Went beyond all expectation—growth perfect—loaded with fruit of wonderful uniformity in size and color—quality of fruit simply marvelous. One tree produced six boxes, every apple of which graded fancy or better. A plate of six apples picked just as I came to them won the Grand Prize at the fair last fall." Delicious (Prize) is just the cream selected from the Delicious introduced by Stark Brothers.

Jonathan (No. 1)—This Jonathan will prove the most marvelous producer of real fancy, dark red apples. Might readily be taken for some new improved va-

riety. It is the greatest individual of that kingly family. The mother tree of this strain produced eleven boxes fancy fruit at seven years old. Has borne heavy crops every year since.

Gano (Grand Prize)—Winner of Grand Sweepstakes Prize of \$250 Loving Cup at 1910 Denver National Apple Show. Large, oblong, dark rich solid red—a great apple to plant for profit in the commercial orchard. Six year old mother tree produced four bushels fruit—95 per cent fancy.

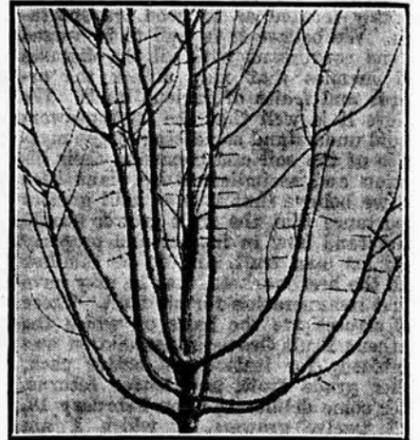
ORCHARD IMPROVEMENT CLUBS.
Farmers of Abilene, Kansas, have organized the first co-operative cow testing association, for the purpose of weeding out the drones or unprofitable cows which is a progressive step, and one that will increase their profits.

If Kansas dairymen will organize to save two years' time by weeding out an unprofitable cow in their herds, how about Kansas fruit men saving twenty or thirty years' time and use of ground now occupied by an unprofitable fruit tree?

The mistake of the past can be corrected in planting new orchards, now that pedigree horticulture, or growing nursery trees from known percentage of fruitfulness and quality offers you the opportunity to plant right, but the big question is to convince yourself of this new idea by observing this season your own orchard. After one season you will be so interested that you will not need to be urged to do so the second season.

Organize a club if only a few members to observe and study the orchards. I will furnish any such organization free of charge full information and blanks to be used describing the ideal trees and arranged for making a plat of your orchard and noting the drones.

After the work is done I will tell you further how you can top graft those drone trees from profitable trees and have an orchard of every tree a worker instead of perhaps 15 per cent to 40 per cent of your trees working. Where



THREE-YEAR-OLD GANO—ARROWS
SHOWING FRUIT BUDS UNKNOWN
IN COMMON STOCK AT THIS AGE

clubs are organized and time will permit, I shall be glad to send a man conversant with our work to talk with you personally or perhaps hold a meeting in an orchard just before picking time to observe and point out to you just the work in your orchard that should be done.

Geo. T. Powell says it is only the intelligent few who will grasp this principle and reap a splendid profit, but that was in New York. I want the few to be thousands in Kansas and surely when it is a work that every fruit grower in Kansas can help in and greatly increase the wealth of his own orchard, he will respond. If you cannot organize a club in your locality, go at the work alone and I will help you all I can.

In clubs you would have the advantage of exchanging notes and the advantage that always comes with organization in any line. Further the Federal Government is spending large sums for the benefit of Citrus fruit growers, because they have taken an interest in this work. Let Kansas get busy and start clubs in this work and then I believe help can be had in delicious fruits in this state.

Dormant Spraying For Fruit.

A thorough spraying with a good dormant wash at this time is especially effective, and almost indispensable, against such diseases as apple scab, brown rot of apples and plum, plum pocket and scale insects.

It is a well known fact that the spores of the various diseases may live over the winter on fallen leaves and fruits, and on the branches, in cracks and wounds. Not only the spores have to be taken into consideration, but also the fungous threads, which, after once having gained entrance into the small twigs and branches, persist for years, thus maintaining a constant source of infection. This is especially true of plum pocket and the brown rot fungus. Pruning must, therefore, be resorted to.

Where a large branch must be cut out the resulting wound should be covered with white lead, or any other suitable material, in order to prevent infection from spores. It is important that all fallen leaves and fruits be raked up and destroyed, since it is from these sources that the spores are liberated and blown onto the trees, thus causing infection.

The idea then, of spraying at this time with a good, strong fungicide, is to cover the trees with the solution so that when the spores fall on them and the conditions for germination are favorable the germ to be sent out by the spore coming in contact with the poison will be killed. If spraying were delayed until after the flower buds open and the leaves unfold the primary infection will have taken place and the spray will be of much less value.

Mixtures recommended as dormant washes are: (1) a copper sulphate wash, consisting of 3 pounds of copper sulphate crystals dissolved in 50 gallons of water; (2) a lime sulphur wash, consisting of 15 pounds of flowers of sulphur, 20 pounds best stone lime and 50 gallons of water; and (3) commercial lime-sulphur washing, consisting of one part commercial lime-sulphur to nine parts water.—Bulletin 121, Minnesota Agricultural College.

Orchard Treatment

(Continued from Page Four.)

meeting of the State Horticultural Society, will return a profit. The low grade of the Kansas standard is equal if not superior to the highest grade required by the Sulzer bill. According to the Sulzer bill apples are graded A, B and C, according to size; grade A being 2 1/2 inches, grade B, 2 1/4 inches, and grade C, 2 inches, these apples being of good color and 90 per cent free from blemish caused by insect, disease or accident. The Kansas standard recommends choice as 2 1/2 inches, apples 50 per cent full color of the variety, and free from blemish caused by insect, disease or accident; fancy, 2 1/4 inches, and 75 per cent full color of the variety and free from blemish; extra fancy, 3 inches, 90 per cent full color of the variety, and absolutely free from blemish.

Apples that can live up to these specifications can go to storage with the certainty that they will return a profit for the labor. In fact, there is usually a market for them at picking time. These are the kind of apples the world is looking for. Much the larger percentage of apples have been put out of this high market class by insect and fungus injury. No one wants an apple that contains a worm, and no one wants an apple that is cracked or marred by fungus injury. There has never been too much clean fruit of large size, and picked in season and so stored as to give it the best quality. Fruit that is free from fungus and insects, picked in season, stores with much greater certainty than fruit that is over-ripe when picked or even slightly affected with insect or fungus.

The grower who had canker worm in 1912 must be ready with an arsenate of lead spray just as soon as the green shows in order that he may escape injury that is certain to follow a visitation of the canker worm. Two pounds of arsenate of lead to 50 gallons of water has been found sufficient, but quicker action has been secured where three pounds instead of two has been used. The addition of 1 1/2 gallons of commercial lime sulphur or its equivalent of home-made solution added to each 50 gallons will greatly aid in the control of fungus.

The all-important spray for the control of the codling moth or apple worm is the blossom fall spray. This should be applied at high pressure and with fairly coarse mist between the time of blossom fall and the closing of the calyx. The high pressure that forces this arsenic solution into the calyx tube is necessary for the best results. One hundred and fifty pounds pressure is not too great, and more is better. The spray that has had most influence in the control of blotch is applied about three weeks after the blossoms fall, consisting of Bordeaux mixture, three pounds copper sulphate, four pounds lime to 50 gallons of water, to which two pounds of arsenate of lead is added. The time of application varies slightly with the weather, which influences the development of the blotch spores. In most seasons a spray 10 weeks after blossom fall has been a very profitable investment in reducing bitter rot and preventing the work of a late brood of codling moth.

Every man who owns an orchard has realized long before this that it is not a get-rich-quick proposition. If he is a quitter, the chance is that the quicker he sells or leases that orchard to someone who will care for it, the better for his bank account, but every man who has sufficient red blood in his veins to enjoy a fight with conditions has every assurance that if he plans his campaign well he can win his fight.

Immune Hogs.

A Nebraska reader states that he has noticed that many breeders who have advertised hog sales this winter have guaranteed their hogs to be immune from cholera, and he notes that such hogs have commanded a better selling price. He raises the question as to how long after a hog has passed through an attack of cholera will it be able to transmit the disease to other hogs, and he also wishes to know whether a hog that has been rendered immune by the double treatment will transmit the disease.

Nobody seems to know just how long a hog which has recovered from cholera will transmit the disease, but it is generally thought that this period will extend to three months or more. A hog which has been rendered immune through the double treatment will not transmit disease to other hogs, but in transferring a hog which has been artificially immunized into a herd that has not had the cholera or received the treatment, it is very much safer to dip this hog and thoroughly disinfect it,

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J. MONCRIEF, PRESIDENT THE WINFIELD NURSERIES, WINFIELD, KANSAS.

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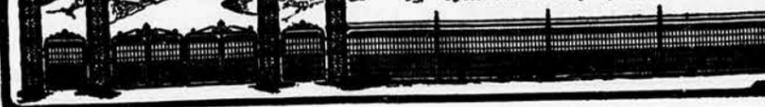
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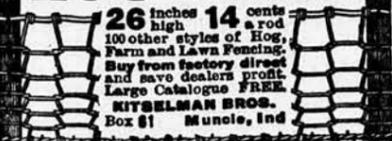
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TEN YEARLY PAYMENTS

THE FARM



It has often been remarked in these columns that the disk is one of the most useful farm implements of the present day. The use of the disk has been abused. This, because too much has been expected of it and because it has been used as a substitute for the plow. This is a condition existing particularly in the western two-thirds of Kansas. Rightly used, however, the disk is an almost indispensable farm implement and at this writing thousands of disks are being used. We observed the work of a disk a few days ago. The disks were as dull as they could well be and it was necessary to load the disk with stones in order to get it to do even fair work. Loading, with the idea of forcing it into the ground, had added to the draft until four good horses had all they could possibly do to draw it. Even then, the disk would not do a good job of cutting corn stalks which were a bit damp. This disk needed sharpening. Had it been sharp the weighting of the disk would have been unnecessary and the draft would have been decreased at least twenty-five per cent and possibly fifty per cent. In days past it has been necessary to take the disks off the shaft and have a blacksmith do the sharpening. However, with the improved disk sharpeners of the present day, the sharpening can be done in the field. We recently witnessed the work of a disk sharpener which is in fact a lathe and which does not grind but removes a thin shaving from the complete circle on the edge of the disk and which puts the disk in perfect condition. With the use of this machine the disks need not be taken to the blacksmith shop and be drawn out more often than once every two or three years, depending upon the quantity of work done. There are grinders, too, which answer the purpose well. The point, however, is that horse flesh and time, when disk is needed, are too precious to be fooled away on dull disks. Keep the disk sharp.

Subscriber, F. M. I., Latham, Kan., writes that he has 40 acres of bottom land on a farm which he recently bought and which he thinks has been in corn for about 40 years until two years ago, when the land was thoroughly plowed, sown to oats, and fall seeded to alfalfa. The first alfalfa seeding was a failure on account of dry weather. The following spring it was sown again to alfalfa and this seeding was practically a failure. However, the alfalfa was mowed once. Subscriber wants to know how to proceed in order to improve the chances for a stand. He says the ground is mellow and wants to know if it should be re-plowed and whether or not seeding with a disk drill would be satisfactory.

It is almost impossible to so formulate a prescription such as would insure successful alfalfa seeding, without a personal examination of the field and an examination of the alfalfa now growing thereon. If this land grew corn successfully, it should grow alfalfa successfully. However, if corn grew on the land for a period of 40 years, it is altogether probable that the field is low in fertility, at least to the depth cultivated. However, the diminished fertility should not prevent obtaining a stand of alfalfa and the production of an alfalfa crop in proportion to the fertility available for the use of that plant. The fact that this land grew corn successfully is evidence, too, of the land being well drained and not closely underlaid with gumbo.

If this field were ours, knowing nothing about it further than set forth in our subscriber's letter, we would be inclined to the belief that failure to secure a stand—provided the weather and moisture conditions of last spring were favorable—was due to either of three causes; first, either a loose poorly prepared seed bed; second, poor seed, or third, lack of nitrogen-gathering bacteria. In the preparation of an alfalfa seed bed, for the most certain favorable results the ground should first be deeply plowed. The soil should be thoroughly pulverized and packed; packed by the use of a sub-packer or by continual harrowing with the teeth of the harrow slanting backwards so that it would have a dragging and packing effect and not a digging

and loosening effect. Of course, if the ground has been plowed sufficiently long in advance of seeding, with rains abundant, the rains would pack the seed bed sufficiently well. In the editor's experience he has found that the alfalfa seed bed should be packed to the point that a 1200 or 1500-pound horse would not sink into the ground in walking over it. A loose, granular seed bed—one which dries out rapidly and one having pockets between the clods into which the tiny alfalfa seed falls—is responsible for more alfalfa failures than any other one condition, except, possibly, lack of moisture. However, the alfalfa plant will endure much dry weather the first month or six weeks of its life if the seed bed is in good condition, so in re-seeding this field we would be certain that the above conditions with reference to seed bed, were provided.

It is not unusual to obtain alfalfa seed of low germinating quality. However, alfalfa seed rarely runs above 85 per cent of germination and such seed is good. However, we have seen alfalfa seed as low as 20 per cent in germination. We do not know what quality of seed our subscriber had. When he buys alfalfa seed again he should be sure that it will grow. He can easily determine this by obtaining a sample of the seed, placing in an ordinary dinner plate a layer of cotton and on top of this a layer of muslin, wetting the cotton and muslin with warm water, placing the seed on the muslin, covering with a layer of muslin and another layer of cotton, dampening this with water, placing on this another plate upside down and setting in a warm place, examining daily to see that the seed is sufficiently wet. In a few days the seeds will sprout and it will be easy to know the proportion of seeds that grow and whether or not the seed is good.

Whether or not the field or the alfalfa seed should be inoculated with nitrogen-gathering bacteria, can be known only by an examination of the alfalfa plants now growing. Our guess would be that inoculation would be necessary in this field inasmuch as it has never grown a leguminous crop such as red clover, cowpeas, sweet clover, etc., and also since the field has grown corn for years and years it probably has never been manured and has never had a green crop planted under, it must be low in organic matter, all of which are conditions which point to the necessity of inoculation. If the alfalfa plants now growing do not show a little nodules on the roots, then it is certain that the nitrogen-gathering bacteria do not exist, and the alfalfa cannot do well. An indication of the lack of these bacteria is a small, spindling, and sickly growth. An alfalfa plant which has the nitrogen-gathering bacteria in such numbers as to provide the plant with the nitrogen gathered from the air in such quantities as it needs, will be vigorous, large, and a dark green. Inoculation of this field could be secured by planting it to cowpeas, and the fertility of the soil and the physical condition would be much improved by plowing under a crop of cowpeas. It would be worth the loss of a crop from this land to receive the benefits obtained from one green manuring crop. The increased certainty of an alfalfa stand and the increased production of the field in alfalfa would justify one year's growth of cowpeas, the same to be plowed under. The field would be improved by growing a crop of cowpeas even though the hay were harvested, and the pea hay would be worth as much in feeding value as a crop of alfalfa. Planted to cowpeas and the hay harvested, the field would be inoculated with the needed bacteria and the physical condition of the soil would also be improved.

However, inoculation itself may be much more easily obtained by the use of nitrogen cultures which have become a commodity of commerce and with which the alfalfa seed is treated. This is the surest and safest way of inoculating and obtaining the required nitrogen-gathering bacteria in case it is regarded as essential to seed the land to alfalfa at once and not secure the added advantages of a green manuring crop of cow-

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peas. "Nitragin" is one of the pure cultures for alfalfa inoculation; it comes in granulated form and is mixed with a little sugar and water and so mixed with the seeds before sowing. Instructions will be received with the culture when it is bought. A distinct strain of culture is needed for alfalfa. In case you buy culture you should order it for alfalfa.

Inoculation, too, can be had by obtaining soil from an old alfalfa field. This is a laborious method and more or less uncertain. A bushel of inoculated soil is required per acre. The soil must be sowed over the ground and harrowed in and this work should be done on a cloudy day. The warm, bright sun has the effect of destroying the bacteria. Therefore, it is apparent that inoculation by this method is troublesome and more or less doubtful and in this day of progress is hardly worth the effort.

We would advise our subscriber that so soon as he secures a stand of alfalfa on this field that the field be top dressed with manure as soon as possible. If the field has actually grown corn for 40 years it is in poor condition for the profitable production of any crop and steps should be taken to rejuvenate this soil, both in so far as fertility and organic matter is concerned, at as early a date as possible.

We would use 12 to 20 pounds of seed per acre, depending upon the quality of the seed obtained for planting, and seed with a disk or press drill. Should every seed grow, six or eight pounds per acre would be enough. Ten pounds is a sufficient quantity of good seed. We would obtain Kansas grown seed and that grown without irrigation. In this respect the same rule applies as in the case of corn and no southern Kansas farmer would think of sending to New York for seed corn grown on the heavy soils with short seasons, and expect it to do well in a warm soil and hot climate and long season. The alfalfa seed obtained should be new seed, too, and not seed two or three or four or five years old.

Our closing advice to this subscriber would be the preparation of the most favorable seed bed, the use of good seed, and the inoculation of that seed. If at sowing time the seed bed should not be well supplied with moisture and so able to take care of the growing plant for at least a month, we would not sow the alfalfa, but instead would plant to cowpeas and wait for favorable alfalfa seeding conditions next fall or the following spring. We would seed the alfalfa as soon as would permit the young plant to escape killing frosts. We are convinced that seeding alfalfa in poorly prepared and in dry seed beds is responsible for more failures than any other causes. Butler County, however, is the third largest alfalfa growing county in the state and the advice and practice of the best alfalfa farmers in that country is worth seeking. Diagnosis of a case at such long range as exists between our subscribers and KANSAS FARMER, is not worth much more than the diagnosis of a human ailment by a physician a hundred miles distant and who never saw the patient. However, points have been brought out in the discussion above which deserve the consideration of all alfalfa growers.

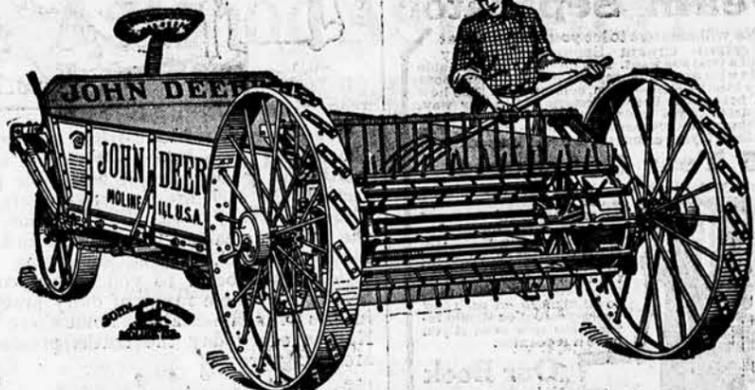
Sweet Clover and Chess.

Answering Subscriber C. C. C., Larned, Kan., sweet clover is not troublesome in cultivated fields or meadows as ordinarily treated for the reason that it does not live more than two years from one seeding. However, if the plants from the original planting are allowed to seed, the plants will of course be perpetuated whether plowed under or allowed to fall on the surface of the ground. It is not unusual in sweet clover to find a small percentage of hard seeds which seeds may not germinate the first season and which may lie in the ground a year or even longer before growing. Sweet clover meadows can usually be effectively killed and cleaned by mowing when the clover first begins to bloom.

Wheat does not turn or degenerate into chess or cheat. Cheat is scientifically known as Bromus secalinus and is one of the several species of the genus Bromus. In certain sections of the United States cheat or chess is grown for hay to a considerable extent. It is an annual and is adapted to sowing in the fall. It yields quite well but the hay is not of high quality. In Oregon cheat has been fed in an experimental way to steers. In this test the hay proved slightly inferior to clover hay but proved valuable in a maintenance ration for wintering cattle.

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where each forkful is needed. Wheels do not interfere with loading.

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Roller bearings, few working parts, the center of the load comparatively near the team and the weight distributed over four wheels, make the John Deere Spreader light draft. There are four sets of roller bearings, two between the main axle and the beater, and two in the front wheels.



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DAIRY



We cannot refrain from producing the stories given below. We could have written at greater detail but space prevented. In each are a dozen morals, so plain that they need no elaboration for the average reader. Read them and re-read. At each reading something additional will occur to you. They cover briefly the whole range of dairy practice in its fundamentals. Somewhere in Kansas every day the truths presented are being proven.

This story was recently related to the editor by a neighbor of the principal, and which neighbor did not feel at liberty to give for publication the name of the young man regarding whom the story was told. We will call the young man Samuel for short, but that is not his name.

Samuel attended the Kansas Agricultural College and he made a specialty of dairying. When he returned home he wanted to establish a dairy business. His father consented. On the farm were some 12 to 15 common cows each of which had been reared on the farm and which at different times had contributed to the butter and cream supply for the family.

The father permitted the son to remodel the barn along the lines he regarded as best and as he had been taught at the college. The barn was equipped to make milking comfortable, convenient and to furnish the herd with satisfactory housing. A liberal feed supply of such combinations as were necessary to provide a satisfactory dairy ration, was at Sam's disposal.

He induced his father to permit an expenditure for scales and Babcock test. The young man went to work, feeding, milking, weighing and testing. It was not long until Sam advised his father that certain individual cows were not paying for their feed and that as milkers they were unprofitable. The father was pleased with the enthusiasm with which the boy pursued his undertaking, so the father selected and bought cows to replace those which Samuel said were not paying for their feed. The scales and test, with an account of the feed, showed that the cows bought were also unprofitable and not better than those disposed of. The father was much disappointed in the judgment he had exercised in the purchase of milk cows. The father then said: "If you and the scales and tester know so much about cows, you buy some that do pay."

It was some days before Samuel found a likely cow, but he found her, brought her home and asked the father to write a check for \$70 payable to Neighbor Jones. The check was written but not without some doubt as to the wisdom of the boy's judgment. The father, however, felt that it was worth the cost to prove the boy's judgment, and at the same time he thought the boy would abandon his classic dairy ideas.

The \$70 cow had not been in the herd long until she had proven herself a profitable and superior producer. It was not long until her value when compared with the other cows in the herd, demonstrated that a bunch of 8 or 10 cows of equal ability would prove more profitable than the cow herd of that farm had ever before been. The result was that the boy was given a free rein in buying a herd of cows which by dairy products would prove profitable and valuable. The cows were bought here and there and without respect to dairy breeding. The boy's school training in the selection of dairy animals and in judging dairy performance by appearance, was the only thing upon which he had to rely. He demonstrated that the boy who knows the game can go out and buy from among the herds of common cattle, superior milk producers at a figure not greatly in advance of prevailing prices for good common cows, when considered from a beef standpoint.

Samuel's demonstration proves three things: First, that with proper training and a full knowledge of what to look for, profitable producers can be selected by the exercise of judgment as to conformation; second, that among the common cattle of the country can be found profitable dairy animals; and, third, that the Babcock test and scales will surely determine relative cow merit.

The barn in which Samuel does his work is provided with cement floors,

good drainage and good light and a silo is a part of the equipment. The calves have good quarters and it is commonly remarked among the neighbors of the locality, that "Sam beats the world in growing skim milk calves." With Sam's dairy are enough pigs at all times to consume the skim milk. The cream is separated by a separator operated by a gasoline engine, and while the engine is running the separator it runs a dynamo which supplies a storage battery with electricity and from which battery dwelling-house and barn are lighted with a brilliancy equal to any of the city residences. On wash days the same engine runs the washing machine and wringer.

The training of the agricultural college is responsible for it all and the father and other home folks are as much pleased with the outcome as is Sam himself.

KANSAS FARMER hopes to be able to induce this young man to write this story himself, the same to be illustrated by photographs. It is such a good story that we could not resist giving this forecast.

Another story came to us recently by a thoroughly reliable route. The principals of this story live within a hundred miles of Topeka and one of the principals is personally known to us. This is a story with reference to feeding. The feeding question was being discussed by a thoroughly well posted feeder of dairy animals and a half dozen farm dairymen. Each dairyman was the owner of a silo and the dairy ration fed by them was corn silage and corn chop. The trained feeder—who will be known as the Feeder through this story—explained that corn silage and corn did not make a good feed for dairy cows for the reason that both the silage and the corn are carbonaceous, or, in other words, fat-producing feeds and do not contain the elements of feed necessary to produce or maintain a liberal milk flow. Such methods of feeding are not only extravagant, in that they are expensive when considered from the standpoint of milk production, but also that the expense of such feed lies largely in the fact that proper use of it is not being made by the cow kept for milk.

The Feeder explained that to this ration should be added a concentrated protein feed, such as cottonseed meal; that by the addition of cottonseed meal, the value of the feed already being given as a producer of dairy products would be increased. When it came to buying cottonseed meal at \$28 to \$30 per ton, the dairyman was extremely doubtful and looked out of the corner of his eye in a fashion indicating that he did not believe the results would justify such expenditure, in fact such extravagance.

The Feeder noted the manner in which his advice was regarded and he told the dairyman that he would himself pay for a ton of cottonseed meal if after feeding one ton as directed, the dairyman was dissatisfied with the results. This proposition looked fair to the dairyman who by this time began to think that if the Feeder would back his judgment with his own money there must be something in his contention.

The dairyman bought the cottonseed meal and later rendered a report to the effect that he had been able to reduce his corn chop somewhat and with the cottonseed meal had increased his milk flow from the same number of cows, one 10-gallon can of milk per day. The Feeder was notified that his obligation was relieved, that he would not have to pay for the cottonseed meal and that the dairyman considered the Feeder had done a bigger thing for his profitable dairy operations than he had supposed was possible through feeding. The dairyman further stated that his neighbors who were feeding corn silage and corn, had taken up the feeding of cottonseed meal in the same way and were pleased with the results.

This is an example of why it pays to study feeds and feeding. If you, the reader, should have at your command every drop of water in the Pacific Ocean, you could not make a glass of lemonade. On the other hand, if you had all the sugar of the Garden City sugar factory and no water, you could not make lemonade. It requires a certain combination of lemon juice, sugar

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Sold by dealers. Ask them or write us for free booklets and full particulars. Address nearest office below.

The Continental Creamery Co.
Topeka, Kan. Oklahoma City, Okla.

Save \$25 to \$40

When Spraying

Wear a **FISH BRAND REFLEX SLICKER** to keep you dry.

ROOMY DURABLE COMFORTABLE

Reflex Edges make it impossible for water to get in at the front, and inner sleeves protect the wrists. Our 'Stayfast' Pockets will not rip.

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413 Tower Canadian Limited, Toronto

Reduces Feeding Cost \$10 per Head in 90 Days

That's the record made by H. B. Johnson, Chickasha, Okla., who started feeding ensilage to 900 head of one and two-year-olds Oct. 4th. Sold entire lot short time ago and made or saved \$10.00 per head on feeding expense alone, a clear gain of \$9,000 on entire lot.

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The quality of your silo partly regulates your profit. That's why it pays to get the best, namely, the Champion with solid steel interlocking door frame, malleable lugs, steel anchors and inside hoops and other modern improvements that make it the best in the world.

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Investigate carefully. Find out why the best farmers and feeders buy Champions. Let us show you why the Champion is best for you, why it makes biggest profits. We send real facts free.

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Over 30,000 Dairymen Are Using and Recommending

'STANDARD' Cream Separators

because the "STANDARD" is a Quality machine. Sold only by reputable dealers and sold at mail-order prices under absolute Guarantee.

Capacity	Our Offer	Reg. Price
500 lb.	\$47.50	\$ 75
700 lb.	\$56.50	\$ 90
900 lb.	\$63.50	\$100

Mail Order Prices But NOT a Mail Order Product

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Standard Separator Co. 229 Peresle Bldg Milwaukee, Wis.

15⁹⁵ AND UPWARD

AMERICAN SEPARATOR

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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Write Before You Buy Get the Hinge Door Silo Book Free

Read about this most famous construction, learn how it makes big extra silo profits. Keeps silo door closed all the time—prevent silage freezing in winter and drying out in summer. Opens and closes easier than barn doors. Easy climbing ladder, 7 inch foothold. Get our book telling all about the Hinge Door

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Two big silo offers in one book. Get your name in to us quick. Ask for Book The Continental Creamery Co. Topeka, Kan., State Agents. General Office, Woods Bros. Silo & Mfg. Co., Lincoln, Neb.

A Non-Rotting Manure Proof Shoe for Farmers

A work shoe with style and perfect fit. Made well from especially tanned leather by special process. Will not rot or crack through from barnyard service. Nothing like it on the market. Cost no more than ordinary shoes. Ask your dealer for them. Each pair absolutely guaranteed by manufacturer to stand manure and barnyard acids.

Huiskamp's Barnyard Shoes Are Guaranteed Farm Shoes

Free Bottle Barnyard Shoe Oil.
If you have never worn Barnyard shoes write us for Free bottle Barnyard non-rotting preparation. Send your dealer's name. Try it on any shoe. It will convince you that Barnyard shoes are what you need. HUISKAMP BROS. CO. 213 Johnson St. Keokuk, Ia.

Cheap as Wood.

We manufacture **Lawn and Farm Fence**. Sell direct shipping to users only, at manufacturers' prices. No agents. Our catalog is free. Write for it today. UP-TO-DATE MFG. CO. 916 10th St., Terre Haute, Ind.

Hopper & Son, Manhattan, Kansas Builders of Concrete Silos

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

CLEAN YOUR BARN AND LOAD YOUR SPREADER IN A MINUTE

By the Gerst Patent Litter Conveyor. The greatest time, labor, money saver, and most modern, up-to-date and sanitary Litter Carrier on the market today. Local agents wanted. For prices, terms, etc., address Sanitary Barn Equipment & Mfg. Ints., Sioux City, Iowa.

and water to make lemonade. It requires a certain combination of the several elements of feed to enable the cow to produce milk. Milk contains elements which can be produced only by certain elements of feed. The protein or the cheesy part of milk cannot be produced from the carbohydrates or fat of feed. It requires a certain combination of protein and carbohydrates to produce milk and the cow will produce milk only so long as she is able to extract from her feed the required feed constituents in their respective proportions.

In this paragraph is contained the fundamental and essential factors of feeding for milk, beef, or any other animal product. It is from these principles that the term—"balanced ration" has been obtained. The feeding of a balanced ration is not only effective feeding, but it is likewise economical feeding.

Skim Milk Calves and Grubs.

Subscriber J. W. K., St. George, Kan., wants to know what feed can be successfully mixed in milk for feeding skim milk calves. He says the grain dealers at Wamego handle a calf feed which is too high-priced to feed common calves. He says he would like to put something in the milk like shorts, oil meal, or flaxseed meal, and wants to know which is the best and how to mix it.

The specially prepared calf feeds are unquestionably the best substitute for whole milk. The feed is made into a cooked mush mixed in a certain proportion of water and the mixture is in food constituents almost identical with whole milk. No human mind will ever be able to figure out a compound in every particular the equal of mother's milk. Nevertheless, the calf feeds properly used, produce very satisfactory results and they are widely used where no skim milk even is available. In the last two or three issues of KANSAS FARMER have been answered numerous inquiries with reference to the use of these calf feeds.

For supplementing skim milk in the feeding of calves, ground flaxseed cooked into a mush and mixed at the rate of a pint of mush to a gallon of milk, is good and can be used successfully with skim milk after the calf has had a good start of ten to fifteen days on whole milk. However, we would personally prefer to use whole milk a few days longer in feeding the calf and until such time as it has learned to eat as it should, corn or kafir chop from a trough. The addition of ground flaxseed to the milk adds fat to the milk, fat being the element, of course, in which skim milk is lacking. Shorts and linseed meal and cottonseed meal added to the milk is in fact only an increase in the amount of skim milk fed. These contain little substitute for the fat taken from the milk. Oil meal is in fact a misnomer for the oil does not exist. These things should not be fed in the milk. Feeding in such way is unnatural and results in derangement of the digestive organs. No man would think of drinking his feed—no difference how fine it was; he would want to chew it and in the mixing with the saliva the first digestive operation begins. So, with the calf; he should chew his solid feeds.

Corn chop and kafir meal and later whole corn and whole kafir are the perfect complements of skim milk. They supply the fat which the skim milk does not have. The calf will learn to eat these readily at two to three weeks old if he is given a chance and under ordinary farm conditions better use cannot be made of whole milk than to give the calf such as he needs until he begins to eat a little, then gradually taper off on to skim milk and at a month old the calf is drinking skim milk and eating corn or kafir chop. Thousands upon thousands of calves on Kansas farms are reared in this manner and make a gain of a pound to 1 1/2 pounds per day from birth until they discontinue drinking milk.

In feeding calves, feed the milk at as near blood temperature as possible. This is around 96 degrees. Feed the milk in as near the same condition as is possible day after day. Feed only from clean pails and do not feed too much milk. Most feeders use two times as much skim milk and whole milk as is necessary.

The same subscriber says that his cows have grubs and wants to know how to get rid of them. Squeeze the grubs out and apply some of the dips advertised in KANSAS FARMER. The use of the dips will keep the flies from the wound. A grub is not easily squeezed out until it reaches a certain stage of maturity and which is shortly before the grub is ready to leave on his own account. The skin can be opened with a sharp knife and in this way the grub can be removed earlier than by the method first above described.

Is Oleomargarine As Good As Butter?

Because oleomargarine is colored like butter and looks like butter and even tastes like butter, is it as good as butter?

The makers CLAIM it is.

You KNOW it is not.

Now similar conditions prevail in the separator business.

The DE LAVAL is everywhere recognized by creamerymen, prominent dairymen and buttermakers as being by far the best cream separator on the market.

98% of the world's creamerymen use the DE LAVAL separators exclusively. That looks like pretty conclusive evidence that the men who make A BUSINESS of the separation of cream and the making of butter, the men who know, are not in any doubt as to which is the best cream separator.

The makers of inferior separators acknowledge that the DE LAVAL is best when they say to you "Our separator looks like the DE LAVAL" or "it's just as good as the DE LAVAL, but we will sell it to you for a little less money."

Why do they offer to sell their machines cheaper? For the very same reason that the makers of oleomargarine sell their product cheaper than butter—because they COST less to MAKE and are WORTH less to use.

The DE LAVAL has many imitators but no equal.

There is no substitute for the DE LAVAL any more than there can be a substitute for butter.

If you need a cream separator, why experiment with "near" or "just as good" imitations or substitutes? You will save yourself time, money and trouble by getting the genuine DE LAVAL and taking no chances with anything else.

For catalog and any desired information write to the nearest office of THE DE LAVAL SEPARATOR CO., 165 Broadway, New York; 29 East Madison Street, Chicago; 101 Drumm Street, San Francisco; 1016 Western Avenue, Seattle.

Clean Your Separator



Old Dutch Cleanser does the work in half the time. Does it far better too than soap and water. For the fine particles penetrate every little seam, removing milk stains and grease from the hard-to-get-at places. Cleans everything around the dairy quickly, thoroughly and hygienically. Saves work, worry, time and money.

Many Other Uses and Full Directions on Large Sifter Can—10c.

Old Dutch Cleanser

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We will add 50% to the net earnings of your corn-field

We will add fifty per cent. to the marketable value of your corn crop and let you pay us out of the extra profits we make for you. Fifty per cent. of the food value of your corn as it stands in the field, is in the stalks, husks and leaves. Only about fifty per cent. is in the grain and cobs. We will make you cash in on your stalks, husks and leaves as well as on your ear corn. An

INDIANA SILO

will enable you to put that fifty per cent. into your cattle to take out again in milk and beef. Twenty-five thousand other farmers are doing this today. They are feeding four head of cattle off the same acreage they used to require to feed two head. They are making as much money from their live stock in winter as they make in spring. They are fattening their feeders right through the winter months and doing it at a profit. You can do the same and do it without the hard work and discomfort that attends your present method of feeding.

WRITE today for our catalogue and a free copy of the book "Silo Profits," which is the story of the Indiana Silo as written by scores of owners of Indiana Silos. And ask us for the name of our representative in your locality.

"You buy an Indiana Silo—but it pays for itself."

Send us your order for an Indiana Silo today and we will make one to your order and ship it when you want it. You will be able to erect it with no trouble and in a very short time. You will have the assurance that comes from dealing with the greatest silo manufacturers in the world. You will have our guarantee backed by the resources of our entire organization.

If you want to make more money out of one acre of corn land than you are now making out of two, investigate our silo and our easy selling plan that enables you to pay for the Indiana Silo out of its own earnings.

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Factories:
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Solid oak, trussed frame; worm and worm gear apron drive, enclosed, runs in oil; wood or steel wheels.



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So simple a boy can run them. Apron works over chilled rollers. Wide seat, comfortable foot rest.

Appleton Manure Spreaders always give long service; spread even, pull easy; because they are perfectly designed and honestly constructed. An Appleton Manure Spreader is a profitable machine for you to buy. Its use keeps your land healthy and in highest productive condition—that means paying crops. Write today for Free Catalog illustrating and describing our 10 styles.

A complete line of machines in stock in your territory.
APPLETON MANUFACTURING CO., 219 Fargo St., Batavia, Ill.

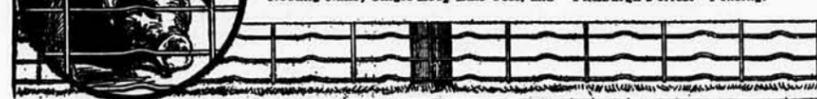
"Pittsburgh Perfect" Fence

The "Pittsburgh Perfect" line of Electrically Welded Fences is the best looking, most effective and durable made for FIELD, FARM, RANCH, LAWN, CHICKEN, POULTRY and RABBIT YARD and GARDEN purposes.

Made of special Open Hearth wire, heavily galvanized, the one-piece fabric is produced by Electrically Welding all wires wherever they touch, and results in a fence which goes up easily, and stands up even and firm during years of satisfactory service.

Enthusiastic "Pittsburgh Perfect" Dealers everywhere. See the nearest. Get our new Catalogue, full of valuable information for fence users—sent free on request.

PITTSBURGH STEEL CO., Pittsburgh, Pa.
Makers of "Pittsburgh Perfect" Brands of Barbed Wire; Bright, Annealed and Galvanized Wire; Twisted Cable Wire; Hard Spring Coil Wire; Fence Staples; Poultry Netting Staples; Regular Wire Nails; Galvanized Wire Nails; Large Head Roofing Nails; Single Loop Bale Ties, and "Pittsburgh Perfect" Fencing.



IS YOUR VALUABLE ANIMAL INSURED AGAINST DEATH FROM DISEASE OR ACCIDENT?

IF NOT, DO NOT CARRY YOUR OWN RISK. NO MAN IS RICH ENOUGH TO DO THAT. LET US SEND YOU INFORMATION AND TESTIMONIALS.

NORTHWESTERN LIVE STOCK INSURANCE COMPANY, DES MOINES, IOWA

MENTION KANSAS FARMER WHEN YOU WRITE.

LIVE STOCK



"The more we see of the silo and the more we feed silage the more we feel that anything that we may have said in their favor has not been put too strongly. The silo is here to stay and the concrete silo is simply all right from any way one wants to figure it."—C. S. NEVIUS, Chiles, Kan.

The market for feed stuffs as well as the reports of correspondents show that prices on feed stuffs are decreasing with the approach of spring. This is a somewhat unusual occurrence because with the approach of spring the stores of feed stuffs are decreased to such an extent that the prices generally rise. This year, however, there was such an abundance raised and the scarcity of farm animals was so great that there is a surplus of feed in many localities and some farmers state that they will probably have to burn up roughage in order to make room for the next crop. While this will indicate a loss, it will not be so serious as would a loss resulting from a shortage of feed and plenty of farm animals.

Just as long as the farmer regards his land as a mine from which he can dig corn crops indefinitely but which will become exhausted in time, just so long will he handicap himself against real success and the making of a home. There is a difference between considering the farm as a mine and considering it as a home. In the one case the whole thought is to get the largest possible returns out of the ground, in the other case plans are laid for the future and the land is regarded as a bank in which deposits are made against future checks. Land should be regarded the same as live stock in this particular. If it is to do good work, it must be fed and the best, cheapest and most effective way to feed it is by growing live stock.

During the winter just passed the value of the live stock on the farm has been very clearly demonstrated. Allowing one bushel of corn for the production of 10 pounds of pork a comparison can be made of the results by selling the corn or by feeding it to hogs. With corn at 32 cents to 35 cents per bushel, which seems to have been about the average price throughout the country, the average acre of corn yielding 26 bushels would be worth from \$8.32 to \$9.10. When this corn was fed to hogs, or preferably to pigs, it has brought from 65 cents to 75 cents per bushel or a yield of \$16.90 to \$19.50 per acre. This, of course, includes the possible risks that one would take from cholera, but does not include increased returns which might have been made by the addition of a little skimmed milk to the ration of the pig.

One point which the farmer should consider seriously when the good roads enthusiast begins to talk to him is the effect which bad roads have on his team. The pulling power of a team of horses is limited more by the condition of the surface of the road than by the steepness of any grade they are likely to meet. If a team of horses can exert power enough to pull a ton load on a level dirt road with a hard surface, they still have reserve force enough to pull the same load over any slight hills or any inequality in the road, but if this road becomes muddy or has a deep bed of sand or dust, the team may still be able to pull the load on the level but could not have reserve force enough to pull over a hill. With a concrete or other hard surface on the road, the pulling power of the team is increased three to four times with the consequence that a load of three or four times the size can be hauled with the same amount of effort. After all, good roads mean simply a question of quick marketing of produce and are savers of time.

The press reports show that during the recent storm which occurred during the second week in March there was a loss of over 17,000 head of cattle in Nebraska alone. Other states suffered though the loss in Kansas does not seem to be so great, partly because the storm was not so severe, but mainly it is thought because there was not so many cattle in the territory affected. This item is a sort of "I told you so" thing. People never seem to learn that the spring

storms are the hardest to endure on the part of the animals because they are likely to be thinner in flesh and because the weather varies so suddenly from one extreme to the other. If this fact could be hammered into us so that we would make ample provision against these storms, the losses would be very materially reduced as more losses occur at this season than during any other. Just now we cannot afford to lose any cattle.

The legislature which has just adjourned, passed a state-wide dog law which provides for a state tax on every dog in the state. There will be a bitter opposition to this as there always is to anything of a radical nature in the way of reform, but the fact remains that the dog is more or less of a luxury and if he is worth keeping at all, he is worth the small tax which will be charged against him. Kansas has been the laughing stock of the world on account of the large number of dogs and their accompaniment of fleas which we raise in preference to sheep. Adjacent states are very successful in growing sheep, and I have never known a sheep raiser who did not make money. One of the largest and most successful farms in Kansas was paid for and developed by sheep and there would seem to be no good reason why sheep farming should not be successful except for the dog. A good dog is worth having on the farm, but with him there should be a good shot gun which would take care of all the worthless curs that come around spreading fleas, hog cholera and trouble.

Perhaps one of the worst phases of the cattle shortage which now appears is in the form of a bull shortage. The cattle shortage has operated to so increase the price of beef that consumers all over the country are howling, but it has also operated to hamper the operations of the breeder and farmer who finds himself in the position of being unable to buy good breeding cattle. The American Hereford Association cannot hold any spring bull sale for the reason that they cannot get the bulls of suitable quality. The American Shorthorn Breeders' Association is trying to arrange for a series of spring bull sales but as yet have been unable to find the necessary animals. The American Aberdeen-Angus Association is the only one of the big associations that has felt warranted in making an announcement of spring bull sales, but it is understood that they have not yet secured enough animals. This department of KANSAS FARMER is receiving letters from other states as well as Kansas asking us to locate first class bulls and in every case to date we have been able to do so, though it is getting to be pretty hard picking.

Dollar a Bushel for Corn.

Corn marketed through live stock is yielding sensational returns this winter. Feeders are making a profit of ten to twenty dollars a head on cattle from feed lots, and claims have been made frequently of late that corn was being sold through the medium of cattle and hogs at one dollar a bushel, though it sells at the elevator at less than half that price. Mr. J. T. Cosand, Cuba, Kansas, sold some cows at Kansas City March 12th, at \$7.25 per hundred pounds, and in an interview at the stock yards after making the sale he substantiated the claim with reference to a dollar a bushel for corn in these words:

"I received that amount for every bushel of corn I fed to a lot of cows and heifers which I sold here today. In feeding these cattle I was very careful to keep tab on every bit of feed they had. The sale of cows was at the highest price I ever received, and was a feature of this deal; they brought \$7.25. At that price they ought to have made big money, and they did."—J. A. RICKART, Market Correspondent.

Market Day at Abilene.

Some time ago it was announced in these columns that the city of Abilene, Kan., had provided a market day and place for use of the farmers where they could dispose of everything they might have for sale. Since that time this market has been held and the total sales amounted to \$4,428.00. The articles sold at this time were principally live stock and farm machinery.

Tire Quality you can Bank on

Quality that you take some one's word for is pretty much of a lottery.

Quality that is clearly defined and assured in the form of a written guarantee is measurable in dollars and cents.

Ajax Tires (all types) are the only tires in the world sold with a written guarantee of 5000 miles, and they have been thus guaranteed for the past eight years.

Every Ajax Tire is built to run 5000 miles. The keynote of our production being quality—not quantity.

Ajax "built in" quality means a saving in dollars and cents of from \$4.00 to \$20.00 a tire.

AJAX TIRES

Guaranteed (in writing) 5000 Miles

Drop us a postal for Booklet "Figures That Don't Lie" and name of nearest Ajax Dealer.

AJAX-GRIEB RUBBER CO.

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25 Little Ave., Buffalo, N. Y. Mar. 7, 1911. Gentlemen: I have used your Spavin Cure for twenty-five years with excellent results. T. M. Nolan.



Kendall's Spavin Cure

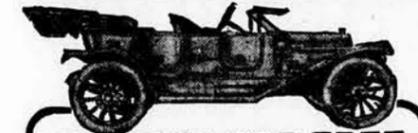
Keeps legs sound and trim. It will add many dollars to the value of your horse. The old reliable remedy for Spavin, Ringbone, Splint, Curb, Swollen Joints and Lameness. Equally reliable as household remedy. At druggists, \$1 a bottle. Get free book, "A Treatise on the Horse," or write to— DR. S. J. KENDALL CO., KNOXSBURG FALLS, VT.

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BEST—CHEAPEST—MOST DESIRABLE
Certain means of identification. Can be stamped with any name, address or number. Catalogue and set of samples mailed free on request.
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\$1500 A YEAR and upwards can be made by taking our Veterinary course at home during spare time. Taught in simplest English. Diploma granted. Graduates assisted in getting locations or positions. Cost within reach of all. Satisfaction guaranteed.
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Also first lesson to every one answering this ad.
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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.
Box 320. Medina, Ohio.

HARNESS DIRECT TO THE FARM
1 1/2-inch russet leathers, solid brass tubular riveted, five or six ring, \$1 each, \$11 per dozen. Write for harness catalog.
INSKEEP & SCHAUBEL, Manhattan, Kan.

Co-operative Marketing

(Continued from page five.)

short time, is often disastrous. For the cost of clearing out is not only greater, but the smothering effect often materially injures the plant. Sometimes, as in the strawberries, great injury is done by having to pull weeds, the strawberry plant coming out with the weeds, or being loosened in the ground. The old adage, "a stitch in time saves nine," expresses it pretty well, but it often happens that we cannot take the stitch. If there were no injury from neglect, it would still be cheaper to keep the ground free from weeds. It costs much more to clean out the weeds than the necessary cultivation, if applied at the right time. There are more points of excellence in the strawberry than in most other small fruits. The strawberry will adapt itself to a great variety of soils and locations.

I will say that it should be our ambition to produce the best of fruit, and I know you will all agree with me that there will probably never be produced too much No. 1 fruit, and that it is never the best fruit that glut the market; so let us urge the necessity of packing none but the best. Competition is growing more fierce every year, and we are certainly approaching very near, if we have not already reached, the point where quality is success. With fruit of first quality and carefully packed we need fear no unprofitable results.

Get Ready for the Fair.

And now is the time to begin to get ready for the fair. As the pigs and calves begin to arrive, select the most likely appearing ones, give them the best care you know how and they will do two things—they will grow better than any you ever had before and they will teach you better methods of caring for live stock.

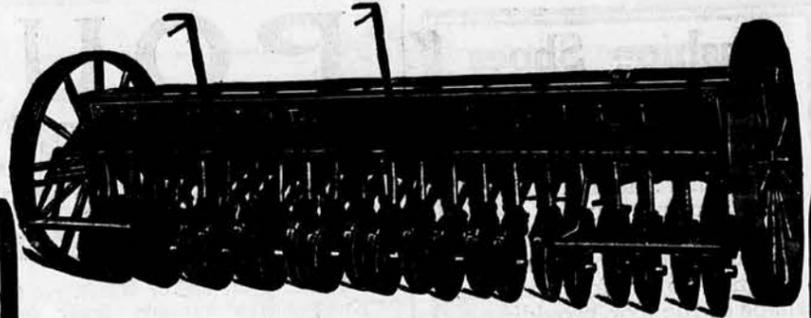
It does not matter whether your ambition lies in the direction of the state fair or whether you only aim to exhibit at the Grange fair, the methods of preparation ought to be the same and the ambition to win should be as strong in one place as another. After you have made a winning at the Grange fair or the county fair and realize the benefit which you personally have derived in the work of preparation, you will be ready and anxious to prepare for more than one county fair and perhaps for the state fair. It is not the winning of ribbons alone that is to be sought in exhibiting at these fairs—it is the improvement of the animals and the training of yourself which are the prime objects and it will pay from either of these three view points.

A. R. O. Cows.

"I am investigating the Holstein-Friesian cattle and find frequent reference to the initials A. R. O. Would like to ask you their meaning."—V. M. REED, Rantoul, Kansas.

The letters A. R. O. when used in connection with the name of a Holstein-Friesian cow mean Advanced Registry Official and serve to indicate a sort of aristocracy among cows which is based, not on blood or breeding, but on performance at the pail. Each dairy breed record association has some such provision by which the highest class of performers are recognized and their performances reported though they may use different words and consequently different initials. Each association provides that cows of their breed may be given an official test either by the experiment station of the state or some person officially designated for the purpose and if the cow meets the requirements of the breed, she is entitled to record in the Advanced Registry. This Registry contains the names of cows of high performance only and of bulls which are descended from such cows or which have daughters that have attained to such a recognition.

The initials A. R. O. after the name of a cow or the initials A. R. S. after the name of a sire do not guarantee that their sons and daughters will attain to the same distinction, but it is very good evidence that they have the qualities on which the A. R. O. division is built. It is, therefore, true that animals which are descended from A. R. O. parents command a higher price than equally well bred animals which have not had the benefit of this test. In buying animals to start a herd it would be well to buy all A. R. O. cattle if the length of the purse will permit it, because they will very shortly pay for themselves and bring a big profit in the sale of their milk and their progeny. If this cannot be done, however, a point should be made to secure an A. R. O. bull. Full information in regard to the requirement of the Holstein-Friesian Association may be had from Secretary F. L. Houghton, Battleboro, Vermont.



MONITOR DOUBLE DISC DRILL

Increases the Yield Raises the Grade Saves 20% of the Seed

Hundreds of farmers have carefully tested out the MONITOR DOUBLE DISC DRILL and in every case have found that it increases the yield, usually from three to seven bushels to the acre—raises the grade and saves at least 20% of the seed. It will actually save its cost in a single season.

THE MONITOR WAY IS THE ONLY RIGHT WAY

It deposits the seed on the downward turn of the disc—at the bottom of the furrow—in two rows, one inch apart and covers it with moist soil and not dry top earth as is done by other drills.

Owing to its uniform depth the seed all comes up at the same time—ripens evenly, insuring better grade—increased yield with less seed—it pays for itself.

The MONITOR DRILL cannot be clogged in any soil, mud, gumbo or in weedy or cornstalk ground, and its draft is one-third lighter than any other.

Our FREE Illustrated Book on Monitor Drills will interest you. Write for it today. The Flying Dutchman Dealer in your neighborhood sells Monitor Drills. Look him up.

MOLINE PLOW COMPANY

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MOLINE, ILLINOIS
SOLD BY HOME OFFICE AND ALL BRANCH HOUSES

Corn Is Our Greatest Crop

It is worth more than any other crop

It costs more than any other crop



POTASH

The corn plant uses over a pound and a quarter of potash for every bushel of ears produced. Supplement manure or clover sod by 400 to 600 lbs. per acre of a fertilizer containing at least as much potash as phosphoric acid, 0-8-8 or 0-8-10, or broadcast 300 lbs. acid phosphate and 100 lbs. muriate of potash per acre after plowing and before harrowing, and drill in with the seed 100 lbs.

per acre 2-8-8 goods. On muck lands broadcast 100 to 200 lbs. muriate of potash per acre.

To drive away cut worms and root lice, drill in 100 lbs. kainit per acre with the seed. Potash makes more sound ears in proportion to the stalks. Potash Pays.

We sell potash in any amount from one 200-lb. bag up.

Write for prices and for free pamphlets on profitable use of fertilizers

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Atlanta, Empire Building
San Francisco

MAKE THE HORSE GLAD AND EAGER FOR WORK

The way to do it is to clip him before you put him at the spring work. Take off his winter coat that holds the wet sweat and dirt. He'll get more good from his feed, look better, rest better and give you better service. The best and most generally used clipper is the

Stewart Ball Bearing Clipping Machine

It turns easy, clips fast and stays sharp. Goats are all file hard and cut from solid steel bar. They are enclosed, PRICE protected and run in oil; little friction, little wear. Has six feet of new style easy running flexible shaft and the celebrated Stewart single tension clipping head, highest grade. Get one from your dealer or send \$2.00 and we will ship C. O. D. for balance. Money back if not satisfied.

Chicago Flexible Shaft Co., 200 Ontario Chicago Ill. Write for big new catalogue showing complete line of Horse Clipping and Sheep Shearing Machines.

HE FEELS FINE



CLIP ALL THE WOOL

YOU LOSE \$1200 ON 6 SHEEP BY THE OLD METHOD

You know the size of your flock—figure how much more money you'll get if you use a Stewart No. 9 Ball Bearing Shearing Machine

It's the most perfect hand operated shearing machine ever devised. Has ball bearings in every part where friction or wear occurs. Has a ball bearing shearing head of the latest improved Stewart pattern. Price complete, including 4 combs and 4 cutters of the celebrated Stewart quality is only \$1150

Get one from your dealer, or send \$2.00 and we will ship C. O. D. for balance. Money and transport charges back if not satisfied.

SEED CORN 146 BU. ACRE

DIAMOND JOE'S BIG WHITE—A strictly new variety. None like it. It is the Earliest and Best Big White Corn in the World—because it was bred for most Big Bushels, not fancy show points; because grown from pure inherited stock; every stalk bearing one or more good ears, because scientifically handled, thoroughly dried and properly cured and had the most rigid inspection. Also all other leading standard varieties at FARMER PRICES. OUR BIG ILLUSTRATED FARM AND GARDEN SEED CATALOG mailed FREE. A postal card will bring it to you. Write for it today. Address, RATEKIN'S SEED HOUSE, Shenandoah, Iowa. Box 7

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Cushion Shoes for tender feet

Many thousands now wear Mayer Yerma Cushion Shoes for comfort and for relief from ailments due to sensitive feet. These are scientifically constructed cushion shoes designed to conform to the shape of the foot, providing a perfect fit and giving extreme comfort. The pillowy cushion soles are built in, which holds them in place.



HONORBILT SHOES
For Men—Women—Children
Mayer Yerma Cushion Shoes are now accorded first consideration among cushion shoes on account of their excellent style, comfort and wear. They belong to the Mayer Honorbilt line, which insures their high quality. If you have foot trouble, or want solid comfort, wear Mayer Yerma Cushion Shoes.

Ask your dealer for Honorbilt Shoes. If not obtainable, write to us.

WARNING—Be sure and look for the Mayer name and trade mark on the sole

We make Mayer Honorbilt Shoes in all styles for men, women and children; also Drysox and Martha Washington Comfort Shoes.

FREE—Send name of dealer who does not handle Mayer Honorbilt Shoes and we will send you free, post-paid, beautiful picture of Martha or George Washington, size 15x20.

F. Mayer Boot & Shoe Co., Milwaukee



HONORBILT



Quilted Cushion Inner Sole
Cork Filling
Outer Sole

Don't Waste Moisture



Conserve The Moisture

THE "Acme" cuts through to the under soil, thoroughly compacting it and leaving no lumps or voids between the furrows. The top soil is mulched. These conditions attract and conserve all the moisture, insuring a successful crop.

ACME

Pulverizing Harrow, Clod Crusher and Leveler

on Plowed-Down Corn Stubble, the "Acme" Leaves All Trash Buried where it does the greatest amount of good as a fertilizer. The "Acme" Harrow is made in all sizes.

Write Today For Catalogue

It illustrates and describes the "Acme" line. You should see it before you buy any harrow.

DUANE H. NASH, Inc., 370 Division Ave., Millington, N.J.
John Deere Plow Co., Kansas City, Mo., Okla.
City, Okla., Denver Colo., Omaha, Neb.

\$7.55 Still Buys World's Champion 140-Egg Incubator
Double cases all over; best copper tank; nursery, self-regulating. Best 140-chick hot-water brooder, \$4.85. Ordered together, \$11.50. Freight Paid (E. of Rockies). No machines at any price are better. Satisfaction guaranteed. Write for book today or send price now and save time. Address: **Selle City Incubator Co., Box 18, Racine, Wis.**

POULTRY



It is nearly the end of March, yet the hatching season has but fairly commenced.

The cold setbacks we have been having in March have been rather severe on early-hatched chicks.

Let us hope that hereafter we may have pleasant weather so that the chicks may go on thriving without any setbacks.

If you provide a darkened nest box for the hens to lay in, you will prevent many from getting the egg-eating habit, for when the eggs are in plain sight of all the hens in the pen they are apt to go to pecking them, and after they once break and eat an egg it is a very hard matter to cure them of the trick.

Dirty eggs come often because the nest boxes are dirty. They should be cleaned frequently and new nesting material placed therein. Soiled eggs should be washed as soon as discovered.

We read in some poultry report from an experiment station not long ago that nest eggs in hens' nests were of no earthly use; that hens laid just as many eggs without them as with them. We have proven, however, that they are of some use, if only to make the hens lay in different nests. We have a pen of eight hens and had provided four nest boxes for them. Being short of nest eggs, and relying somewhat on that report we had read that nest eggs were useless, we put one in one nest box. The hens all laid in that one box, as many as seven of them in one day at times. We did not like this, as we thought the hens would be apt to break the eggs, for several wanted to lay at the same time. We then placed a nest egg in another box, and lo, the very next day a hen laid in that box and none in the other two boxes that had no nest eggs. We then placed nest eggs in those also, and now the hens lay in all four nests. The nests were all alike, so there could have been no preference for shape or position. Whatever the experts say about the uselessness of nest eggs, we

know one thing, the hens prefer the nest that has one in it.

Baby Chick Carriers.

Could you tell me, or give a short piece in your paper, how to fix little chicks to send them by express? It would be a help I would appreciate.—Mrs. J. B., Solomon, Kan.

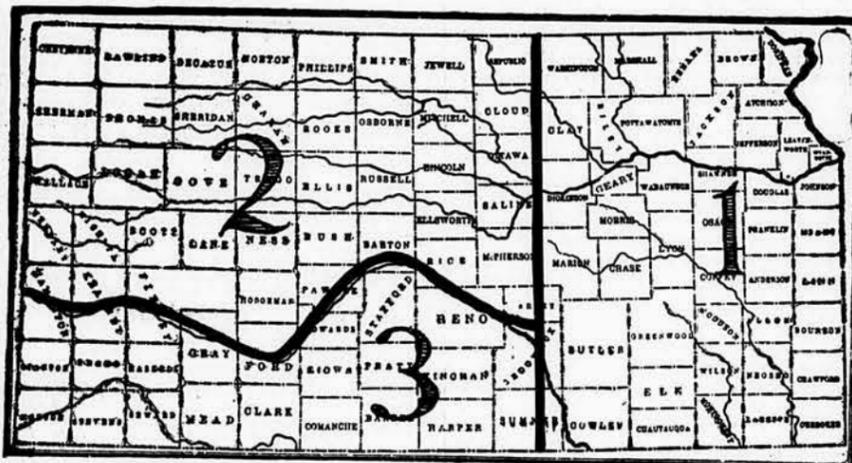
All up-to-date poultry supply houses keep boxes for sending baby chicks by express at prices cheaper than you can make them yourself. They are made of corrugated cardboard, with pads above the chicks to keep them warm. The main requisite is to keep the chicks warm and comfortable, while allowing plenty of air for ventilation. See our advertising columns for addresses of poultry supply houses.

Why I Raise Rhode Island Reds.

Like most pure-bred fowls, a flock of Rhode Island Reds is very pleasing to the eye. But more important is the utility side. They deserve to be placed in the "egg machine" class as well as the Leghorn and the Indian Runner duck. My small flock of 60 Rose Comb Reds made an average of nearly two dozen eggs a day all winter, the spells of extra cold weather not affecting them so much as other breeds. In February the average was three dozen a day, and now often get 45 eggs from the 60 hens. They are more active and require less food than any other breed of the American class, and are excellent mothers. In most cases one can change a broody hen to another nest in any location and in the day time, with success. Many of my broody hens, if taken from the nest the first evening, will after three to five days begin to lay again. More attention is now being paid to size and shape, as well as color. I sometimes have pullets to weigh seven pounds, and have been cut for overweight at shows more often than for underweight. My hens received no special care, being fed nothing but kafir, oats and corn, with a wheat field near for green food. Plenty of grit and fresh water are important. For a farm flock they are hard to beat.—Mrs. E. F. LANT, Dennis, Kan.

BEST TREES FOR KANSAS

C. A. Scott, State Forester, Makes a List of Desirables



MAP SHOWING DIVISIONS TO WHICH TREES NAMED ARE ADAPTED

SHADE trees in the yard, in town or country, makes a great difference in the temperature and moisture conditions, as well as give a value and beauty to home. Many persons who have planted maples, boxelders, and cottonwoods are having much trouble by the trees dying during the drouthy conditions of the last two years. Many trees have been injured by insects. "Before a list of desirable trees can be given," says Charles A. Scott, state forester, "it is necessary to consider the character of the soil and climatic conditions. These factors in Kansas necessitate a division of the state into three parts.

THE DIVISION.

"Division No. 1 is the east side of a north and south line approximately between Republic and Jewell counties. The

western portion is divided into two parts by the Arkansas river, the northern part being Division 2 and the southern, Division 3. North of the Arkansas, excepting the river valleys, is hard loam, and south is sandy to light drift sand.

"The best trees for the first division are: The Sugar or Rock, Norway or Sycamore, or purple-leaved maples; White, Red, Pin, Burr or English oaks; Hackberry; White, Rock or Cork, or English elms; Tulip tree; Sycamore or Plane tree; Orientalis Sycamore; Black Cherry; Red Bud; Kentucky Coffee tree; Thornless Honey Locust; Basswood or Lindon; Lindon or Bee tree; White or Green ash; White, Red or Norway, Table Mountain, Pitch, Austrian, Scotch, Swiss Mountain pines; Western Yellows; European Larch; Colorado Blue, White, Black Hills, Norway, Doug-

FARM CUSHMAN

The High Power Engine for All Farm Work

Take it wherever you have use for it—it weighs less than 200 pounds. Catalog Free.

Original Binder Engine



4 Full Horse Power

Pulls more than rated power. 4-cycle automatic throttle governor. Fuel consumed is proportioned to work—no waste. Easy to move and handle, easy speed change, fits in any place, simple, dependable. Up-to-date farmers are buying the Farm Cushman because it's an all-purpose engine suited to every power job, from turning the grindstone in operating the binder. Write for catalog showing what other farmers are doing. We build 6-8 and 20 h.p. specialty engines for heavier work. Get descriptive catalog. Don't buy until you see it.

CUSHMAN MOTOR WORKS

2048 N St., Lincoln, Neb.

\$25.95 FIVE YEAR GUARANTEED \$29.95
AIR COOLED 1 1/2 HP GASOLINE ENGINE 1 1/2 HP HOPPER COOLED LIKE PICTURE

We will send you our latest improved 1 1/2 horse power air cooled gasoline engine at \$25.95 or one of our famous high grade, 6-year insured Faultless (like picture) at \$29.95 up, without any money in advance on at our risk. Test it as severely as a gasoline engine can possibly be tested and after the trial, if days are up, if you are not satisfied for any reason, return it at our expense. Our engines possess Every Good New Feature: Four cycle; make and control lever; governor control; fuel supply; uses fuel according to load; simple positive mixing device. Latest operated engines in the world. You can run them. Simply constructed. No complicated parts. Wear longest. Develop great power. If interested, **WRITE US AND SAY:** "Send me your big special gasoline engine catalog," and read for yourself our wonderful 30 day free trial offer, our no money in advance offer and our great 6 year insurance policy; see the big line pictures of our engines and our wonderfully low prices.

30 Days' Free Trial

Cream Separator, 350 pounds capacity, \$25.90 No money in advance. Shipped on 60 days' free trial. Closest gettters in the world. If interested **WRITE TODAY** for our free special cream separator catalog and see for yourself.

JOHN M. SMYTH & CO., 150-250 W. Madison St., Chicago

\$10.00 Sweep Feed Grinder | **\$14.00 Salvaged Steel Wind Mill**
We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.
CURRIE WIND MILL CO., Seventh St., Topeka, Kansas

Mandy Lee
New Principles in Incubation. Every feature automatically regulated—heat, ventilation and moisture. The Mandy Lee is certain, simple, easy to operate. No chances for mistakes, simply follow plain rules. Chicks large and vigorous, the kind easily raised. Write for free books on incubator and Lee's famous Germoxone, Lioo Killer and Egg Maker.
GEO. H. LEE COMPANY, 1187 Harney Street, Omaha, Neb.

BOWSER SWEEP MILLS
Different from all others. Grind Corn with shucks, chaff in the head and all kinds of small grain. 4 and 2 horse sizes. (Also make 10 sizes of belt mills)
FREE—Sends "Feeds and Manures"
C.N.P. Bowser Co., South Bend, Ind.

LUBRICATING OILS AND GREASES.
Do you use any of the following oils or greases? Cream Separator, Harness, Graphite Machine, Red Engine, Castor Machine, Gas Engine, Golden Auto, Cup Grease, Transmission or Axle Grease, Stock Dip? Our oils and greases are of the highest quality on the market and our prices are right. Write for prices and information. Write today.
IOLA WHOLESALE OIL CO., Iola, Kan.

PARCEL POST EGG BOXES
For mailing 3 dozen eggs. Made strong. Each egg has cotton lined compartment. Be first to keep your grocer supplied with fresh eggs. Price, 90c; 3 for \$2.50, postpaid. Order today. Going like hot cakes.
PARCEL POST EGG BOX CO., 700 West Eleventh St., Kansas City, Mo.

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.
THOMAS OWEN, Station B, Topeka, Kansas.

FARMERS

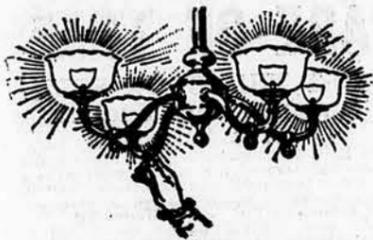
WHY USE THAT DANGEROUS LANTERN IN YOUR BARN?



AND THOSE DANGEROUS AND FILTHY OIL LAMPS IN YOUR HOME?



WHEN YOU CAN LIGHT SO SAFELY, BEAUTIFULLY AND CHEAPLY



WITH A "DAVIS" LIGHTING SYSTEM.

Costs you no more than the value of a good horse to install one.

Drop us a card today, and we will tell you all about this wonderful light.

DAVIS CO., KANSAS CITY MISSOURI

4343 Harrison Street.

AGENTS WANTED.

Write today, before they are all placed.

CARBO POSTS



These POSTS are GUARANTEED not to bend or break.

Anchored (direct in earth—ordinary tools.) Every stockman should have our latest catalog on "Fence Post Facts," sent free on request. Write today. Carbo Steel Post Co., Chicago Heights, Ill. 106 Tenth Street.

SEED CORN.

My corn is without a doubt the most carefully handled seed corn grown. Every ear is inspected and nothing but good, well-matured ears are saved for seed. I have the Reid's Yellow Dent and Boone County White at \$2.00 per bushel and some extra good Shenandoah Yellow at \$1.25 per bushel. Every ear has been tipped, graded and fanned. Send check with order to A. C. HANSEN, Mutual Phone, Willis, Kan.

STANDARD BOOKS

For the farmer and breeder for sale at this office. Send for catalog.

Address KANSAS FARMER, TOPEKA, KAN.

To reach the well-to-do Farmers of Kansas and surrounding Territory with a Heart-to-Heart Business Talk, use our Classified Columns. Ready buyers at a low cost.

las spruces; White or Silver fir; Chinese Arborvitae; Bald Cypress; Dwarf, Irish or Swedish Junipers; and Red Cedar.

"For Division No. 2," said Mr. Scott, "I would suggest these: Thornless Honey Locust, Hackberry, White Elm, Green Ash, Russian Wild Olive, Pagoda tree, Osage Orange, Red Cedar, Dwarf Juniper, Chinese Arborvitae, Austrian or Scotch pine.

"For Division No. 3: Hackberry, White Elm, Russian Wild Olive, Russian Mulberry, Kentucky Coffee tree, Pagoda tree, Osage Orange, Red Cedar, Chinese Arborvitae, Austrian or Scotch pines.

HOW TO PLANT.

"If the character of the soil and weather conditions are favorable, trees from four to six inches in diameter and from sixteen to twenty-four feet in height may be planted. In my judgment trees of the broad-leaf species about two inches in diameter, cut back to about eight feet in height, are better in five years than if set out when they are larger. These trees should have straight stems and well-developed crowns. When transplanting coniferous trees they should be protected by boxes or barrels, with the tops and bottoms knocked out, set and anchored around the trees.

"Trees demand a porous soil. The hole in which the tree is to be planted ceive the roots in their natural position. The soil about the roots must be tramped to bring the fresh soil and roots into immediate contact, to prevent them from drying out and to exclude the air. In the western part of the state the roots must be entirely covered, but the holes need not be entirely filled. This will aid the accumulation of surface water.

"A space, at least six feet in diameter, must be thoroughly spaded about the trees during the summer. This should be continued for two or three years, until the trees become thoroughly rooted. After this it may be seeded to grass.

"The only purpose of pruning is to develop the tree into some desired form. The ideal form must be kept in mind and the objectionable limbs removed every year. This should be done while the limbs are small so as not to make unsightly wounds. A knife is the only tool needed when pruning is properly done. The use of an axe or saw is unnecessary and seriously detrimental. Trees must be given careful protection against their insect enemies.

"We have not yet experienced any destructive outbreaks in Kansas, but the elm tree borer and the scale insects are causing much injury, and some protection must be given the trees to prevent their ultimate destruction."

Successful Orchard of Hottes Elberta.

My fifty-seven Hottes Elberta peach trees are planted on less than one-half of an acre of ground. The land is only fair, being almost too sandy for very good peach land. The trees have now been planted three years and when only two years old, set sufficient fruit to produce one-half bushel per tree. The crop, however, was injured by unfavorable weather in the late spring. This year the orchard produced an average crop of two and one-half bushels per tree, or about 130 bushels.

In order to fully test the productiveness of this variety, I selected two trees, giving them special attention in the matter of pruning, fertilizing and cultivation with the result that each tree produced over four and one-half bushels. A remarkable thing about my orchard is that every tree produced a paying crop—not a single loafer among them. I have been growing the common Elberta for a number of years in the same orchard with these trees, and the record that they have made is hardly worthy of comparison with the Hottes Elberta. The fruit colors better and more evenly than common Elberta, is juicy, tender and sweet, and the meat is firmer and finer grained.

The trees are again loaded with fruit buds, promising a fine crop next year. If I could grow but one variety it would be Hottes Elberta. It should be planted extensively wherever peaches can be grown.—T. C. PRICE, Winfield, Kan.

Tells Why Chicks Die.

J. C. Reefer, the poultry expert of 1649 Main Street, Kansas City, Mo., is giving away free a valuable book entitled "White Diarrhoea and How to Cure It." This remarkable book contains some new scientific facts on white diarrhoea and tells how to prepare a simple solution that cures this terrible disease over night. Everyone interested in poultry should certainly write Mr. Reefer for one of these free books.—(Adv.)

Dandy 72-page Cook Book mailed Free to any address on receipt of five cents in stamps to cover cost of mailing. Send for it today.



Write for booklet which illustrates and describes all models of the NEW PERFECTION Oil Cook-Stove as well as full equipment.

The Comforts of the City Kitchen Brought Home to the Farm

Install a NEW PERFECTION Oil Cook-Stove, Madam, and immediately transform your kitchen into a City Kitchen, with all the convenience and efficiency afforded by gasoline or gas but with one-third to one-half less expense. The handy Cabinet Shelf makes it an all-the-year-round cook-stove.

New Perfection Oil Cook-stove

is a wonder. Eliminates the dirt, dust and delay of using coal. More heat units than gas or gasoline and minus their odor. Perfectly safe.

Lights on the instant, producing a true blue flame. Boils, broils, bakes, roasts or toasts.

Handy to get at. Easy to operate.

Two minutes to install. No flue nor stove pipe.

Equipped with the new oil reservoir and indicator; and with or without portable oven, cabinet shelf, odorless broiler, special toaster, aluminum pan cake griddle.

Cost—surprisingly small. Ask your dealer for demonstration and prices.

STANDARD OIL COMPANY

(AN INDIANA CORPORATION) CHICAGO, ILL.

(35)

1,001 Knights of the Spalding Deep Tilling Machine

have told us in dollars and bushels just what deep tilling means to them. They relate their actual experiences—not their theories of deep tilling. In this mass of evidence are several letters relating to soil conditions similar to yours. Below are a few of these letters. If you want more deep tilling facts, write us for the book entitled, "1,001 Knights."

These Men Saw the Light

Deep Tilling in Cherokee County.

The first of June I secured the use of a Spalding Deep Tilling Machine and prepared three acres out of eight, stirred the ground from 10 to 16 inches in depth. It mixed and pulverized the soil better than could be done with a spade. The remainder of the eight acres I plowed with a two-bottom gang as good and deep as possible. I used the same team on both and planted the whole lot to corn. A few days after the corn came up we had a very hard rain which stood on the ground plowed with a gang in several places for days. The deep tilled had none on it and it cultivates much easier. Can tell to the furrow by the way the grass and weeds start up. I buried the weeds and grass seed so deep that they have not gotten up yet. Now it is very dry. I have found that there is much more moisture in the deep tilled ground. If it keeps

dry will soon begin to see a difference in the growth.

I am so well impressed with the deep tilling machine that I am now offering to buy and furnish all my renters with them free of cost, if they will use them.

J. C. NAYLOR.

Alliance, Neb., November 16, 1912.

My deep tilled corn made 60 bushels per acre, while that raised on the mouldboard plowing made about 20. That on the deep tilled land would have yielded 75 bushels if it had not been so thick on the stand.

We have done some fall plowing where we plowed with it last spring, and it pulls considerably lighter than the first plowing did. I consider it the most profitable machine that I have, and would not take \$500 if I could not get another one.

J. P. BARGER.

Spalding Dept. 70, GALE MFG. CO., Albion, Mich. (48)

WHY INCUBATOR CHICKS DIE

The book entitled "The History of White Diarrhoea, or Why Incubator Chicks Die," will be sent absolutely free by return mail, to anyone sending us the names of 7 to 10 of their friends that use incubators. This book can save you \$100 this summer. It describes white diarrhoea or bowel trouble, the cause, and tells the cure. BOOK ABSOLUTELY FREE FOR THE NAMES. RAISALL REMEDY COMPANY, BLACKWELL, OKLA.

SEED CORN TO GROW

Guaranteed and tested, grown under perfect conditions. All our own production, big yields. Varieties—Great White Pearl, the strongest grower and producer known; Reid's Yellow Dent and the "Ever Ready," a corn for late planting maturing in 80 to 90 days. Write us for dope.

W. F. DAVIS, SOUTH ST. JOSEPH, MO.

HIGH GRADE SEED CORN and SEEDS

ASK FOR QUOTATIONS GEO. T. FIELDING & SONS, MANHATTAN, KAN.

MENTION KANSAS FARMER WHEN YOU WRITE.

KANSAS STATE UNIVERSITY LIBRARY

THE dollars you pay the butcher—the cents he pays you—keep that difference in your own pockets by doing your own killing and preparing pork products for the market. Beefsteak prices for sausage—and cannot you make as good sausage as anyone? For this kind of work as well as household uses, you will always find an

ENTERPRISE Meat AND Food Chopper



the greatest of helpers. It has a four-bladed knife that really chops, cutting fast and actually cutting—does not mangle, squish or crush the meat. The difference means an actual market price benefit. There is no question about there being a

market for such products—it always exceeds the supply, and you can command and get your own prices.

The Enterprise Meat AND Food Chopper will be an every-day-through-the-year help in the kitchen, lightening the wife's work and enabling her to prepare unusually dainty dishes with trifling effort. Easy to clean, too. It repeats its cost almost every week. Enterprise Meat AND Food Choppers are made in 45 sizes and styles—hand, steam and electric power.

- No. 5—Family size.....hand \$1.75
- No. 12—Farmers' size.....hand 2.25
- No. 22—Farmers' size.....hand 4.00

We also make cheaper food choppers, but recommend the above. Send for "The Enterprising Housekeeper," a fine 200-recipe cook book, 4c. Your wife will like it.

THE ENTERPRISE MFG. CO. OF PA.
Dept. 56, Philadelphia, Pa.

Get A Canadian Home In Western Canada's



Free Homestead Area

The Province of Manitoba has several New Homestead Districts that afford rare opportunity to secure 160 Acres of excellent agricultural land FREE.

For Grain Growing and Cattle Raising

this Province has no superior and in profitable agriculture shows an unbroken period of over a quarter of a century. Perfect Climate; Good Markets; Railways Convenient; Soil the very best, and social conditions most desirable. Vacant lands adjacent to Free Homesteads may be purchased and also in the older Districts lands may be bought at reasonable prices.

For Further Particulars, address

Canadian Government Agent
125 W. 9th St.
Kansas City, Mo.

or write Superintendent of Immigration,
Ottawa, Canada.

Hand Made Crochet Bows

35c POST PAID

Write for our catalog showing many styles of crochet and velvet bows; fainty ladies neckwear at low prices.

Western Commercial Company, Mack Bldg., Milwaukee, Wisconsin.

FETERITA

A great drought resistant, heavy yielding grain, similar to White Kafir. Feterita grows 4 to 6 feet tall. When about 6 inches high puts out 4 to 10 sucker plants, each maturing a head. Price and 1913 Seed Book mailed free.

ROSS BROTHERS' SEED HOUSE,
317 East Douglas, Wichita, Kansas.

SEED CORN

Plant the best. I have Boone County White, Hildreth's and Reid's Yellow Dent. Carefully selected, thoroughly tested, and graded. Write for prices and samples. I sell only my own growing. Money back if not satisfactory upon receipt of shipment.

M. T. KELSEY, NORTHWOOD FARM,
106 Arter Ave., Topeka, Kan.

SEED CORN

High yield and fine quality. Grand sweepstakes and seven first premiums at Hutchinson State fair. Nine first premiums at Topeka State Fair in 1912. Three times state Champion in Capper Contest. Over 100 first prizes in past five years. Send for circular.

J. M. GILMAN & SONS,
Route 1, Leavenworth, Kan.

For Choice Pure-Bred Seed Corn

and all kinds of farm seeds in bulk, also garden seeds, send to the Lawndale Seed Farm. Catalog free.

JOHN D. ZILLER,
The Farmer Seedman, Hiawatha, Kansas.

To reach the well-to-do farmers of Kansas and surrounding territory with a heart-to-heart business talk, use our Classified Columns. Ready buyers at a Low Cost.

HOME CIRCLE



BRAD'S BIT O' VERSE.

Give a Lift.

Makes no difference where or when, or how high they're roosting, everybody now and then needs a little boosting. Folks can't always go along with bright smiles a-beaming; they can't always sing a song just like birds a-dreaming; they get lonesome as they go toiling up the mountain, and the joy won't always flow like a bubbling fountain. Life is not an easy game—off the way is dreary, eyes grow dim and feet get lame, hearts are oft a-weary. Then's the time to lend a hand, then's the time for smiling; then's the time to join the band that is sunshine-piling. Folks can't always hum a tune, warbling like a sparrow; life's not always one sweet June—roads get steep and narrow. Makes no difference how they smile, or how gay appearing, folks get sad each little while, need a bit of cheering. Then's the time to seek them out, soothe their feelings battered; then's the time to sing and shout till the glooms are scattered.

Plenty of water taken between meals is good for the complexion.

When cutting bread that is still hot, if the knife is heated, the bread may be cut as smoothly as when cold.

Massachusetts is said to pay \$20,000,000 for eggs and poultry raised outside of the state, in addition to \$4,000,000 more for that raised in the state.

A correspondent says she uses an ordinary curling iron to curl ostrich plumes. Care must be taken not to have the curling iron too hot.

Skimmed milk with a little bluing added is said to be an excellent substitute for starch for laces, fine embroidery and similar articles.

Don't throw away the coarse, green leaves of celery. Dry them in the oven for flavoring soups and sauces.

Some Things the Daughter May Do.

Do your best to keep your mother youthful in appearance, as well as in spirit.

Introduce all your friends to mother and enlist her sympathies in youthful projects, hopes and plans, so that once again she may re-live her own youth. Talk with her about your work, your studies, your friends, your amusements, the books you read, the friends you visit; everything that concerns you is of interest to her.

Don't shock or pain her by ridiculing her "old-fashioned" prejudices.

If she is no longer able to take part in the household duties, never allow her to feel she has lost her importance as the central factor of the home.

Remember that her life is monotonous as compared to yours; take her visiting as frequently as possible.

The girl who is ever endeavoring to repay, even in slight measure, what she owes her mother will be the one most sought after by the people worth knowing.

Bear patiently with all her peculiarities and infirmities, which, after all, may be the result of a life of care and toil.

Consult and seek her advice on whatever you are about to do, though quite convinced of your course.

Seek her comfort and pleasure in all things before your own.

Do not forget that, though she may be old, she still likes pretty things.

Give her your full confidence and never do anything you think she will disapprove.

Lift the many burdens from the shoulders that have grown stooped in waiting upon and working for you.

Never intimate by word or deed that your world and hers are different, or that you feel in any way superior to her.

And may God bless you now and always!—Journal of Agriculture.

Good Money for Your Spare Time

Make Use of Your Spare Time

In a business where you are your own boss. You can make good money at your leisure by a small effort in your own community in a good paying business.

AGENTS WANTED

Every man needs life insurance. Every man needs life insurance explained to him. Every man wants sound insurance. Every company needs reliable men to explain their insurance. You can easily learn it—we teach you. No cost to you to find out how your spare time can be turned into money. Write or call.

S. E. BARBER, Mgr., Topeka, Kan.

SALZER'S FARM SEEDS



Big, valuable premiums given away free with purchases of Salzer's Pedigreed Farm Seed. Send today for August 1913 Catalogue and Premium List, and see how you can save money on the best seeds and at the same time secure articles you would like to have.

Salzer's catalogue has for 27 years been famous for Farm and Vegetable Seeds, Flowers, Plants and Nursery Stock.

Succeed with Salzer's Seeds

We sell direct, thus quoting you lowest prices and cutting out useless profits. For ten cents we gladly mail samples of Salzer's famous Alfalfa Clover, Bonanza Oats, Silver King Barley, \$1,000 Prize Wheat and many other packages of fine farm seeds.

Red Clover and Timothy Within a radius of 100 miles of La Crosse is grown this year five times more rich red clover seed than anywhere else in the United States. Be sure to get catalog and premium list.

JOHN A. SALZER SEED CO. 229 S. 5th St., La Crosse, Wis.

CARE OF TREES

GET THIS BOOK FREE Transplanting, Spraying Tree Science

We have been right here 35 years supplying the farmers of the middle west with the best trees that skill and experience can produce. Recently we published a little book on "Transplanting, and Managing Trees, Shrubs and Vines," giving much valuable information and instructions as to the proper methods of planting and caring for trees, also formulas for spraying and the proper time to spray.

This book will be mailed to you absolutely free, if you will send us the names of five reliable farm owners who are interested in fruit. Salesmen Wanted.

F. H. STANNARD & CO., Proprietors
Ottawa Star Nurseries, Ottawa, Kan.

BILL BROOK FARM SEED CORN

Boone County White and Reid's Yellow Dent. Well matured and well selected. Shelled and graded, \$2.25; in ear, crated, \$2.75.

H. O. TUDOR, HOLTON, KAN.

TRENT'S Seed Corn

First prize six consecutive years at Manhattan State Corn Show—proves I have best strains Seed Corn in the West. Reid's Yellow Dent, Boone Co. White, fire dried, tested and guaranteed. SPECIAL PRICE FOR MARCH ONLY.

Write for free catalog. S. G. TRENT, Box K, Hiawatha, Kansas.

SEEDS

First dried SEED CORN, husked before the frost, dried on independent ear seed racks with air and steam heat. Sure to grow, because germ is preserved. Also Clover, Alfalfa, Oats, Rye and Garden Seeds. Write at once for FREE catalog, and also receive free useful souvenir.

FRED ECHTENKAMP, Box A, Arlington, Neb.

Beloit Seed House

White Cap, Boone County, and all leading varieties seed corn. Alfalfa, millet, and full line of garden seeds. Write for catalog. BELOIT, KANSAS.

Pure Bred Yellow Seed Corn

Mammoth Drouth Proof, Early Monroe, Sunflower, Hildreth, Hiawatha. Big yielders, grown by me, successfully, in central Kansas for past 6 years. Write for catalog. A. E. WHITZEL, Route 7, Sterling, Kan.

60 Concord Nursery Snaps

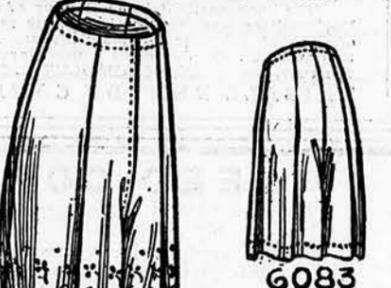
Hardy, vigorous, guaranteed stock. Low price and square deal on all nursery stock. Send for Catalog and 2c Doo Bill, Free. FAIRBURY NURSERY, BOX 1, FAIRBURY, NEB.

PURE SEED CORN.

Hildreth, Kansas Sunflower, Boone County, Commercial White, White Pearl, Kafir. Fully guaranteed. Write for sample and circular. J. M. McCRAY, Manhattan, Kan.



No. 6066—Ladies' Blouse. This blouse is made with removable chemisette and long or short sleeves. The sleeves are set in deep armholes and are finished with chic cuffs. There is a dainty turn-down collar and a trail of edging adds completion. The pattern, No. 6066, is cut in sizes 34 to 42 inches bust measure. Medium size requires 2 1/4 yards of 36-inch material and 1 yard of edging. Price of pattern, 10 cents.



No. 6083—Ladies' Open Drawers. This model represents ladies' one-piece open drawers, a design easy to carry out and one that is good looking and is pretty made of flouncing as suggested by the drawing, while plain material may be used, with the trimming of embroidery or lace. The pattern, No. 6083, is cut in sizes 22 to 30 inches waist measure. Size 24 requires 2 1/4 yards of 36-inch material. Price of pattern, 10 cents.



No. 6056—Ladies' Dress. The garment closes at the front and the chemisette is removable. The skirt is cut in three gores and can be made with either the empire or regulation waistline. Serge, cheviot, pongee or messaline can be used to make this dress. The pattern, No. 6056, is cut in sizes 34 to 42 inches bust measure. Medium size requires 5 1/4 yards of 36-inch material and 1/4 yard of 22-inch all-over lace. Price of pattern, 10 cents.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 300,000 readers for 4 cents a word for one week; 8 cents a word for two weeks; 12 cents a word for three weeks; 14 cents a word for four weeks. Additional weeks after four weeks, the rate is 3 1/2 cents a word per week. No "ad" taken for less than 50 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

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

HELP WANTED.

RAILWAY MAIL CLERKS WANTED—1900 first year, promotion to \$1,800. Examinations May 3 in every state. Common education sufficient with my coaching. Full information free. Write for booklet V809, Earl Hopkins, Washington, D. C.

WANTED—RAILWAY MAIL CLERKS, 190 month. Examinations everywhere May 3. Write for vacancy list. Franklin Institute, Dept. M 85, Rochester, N. Y.

WANTED—RAILWAY MAIL CLERKS, Examination May 3. Splendid salaries. I conducted govt. exams. Can help you pass. Trial lesson free. Write Ozment, 44R, St. Louis.

FREE ILLUSTRATED BOOKLET TELLS about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-409. No obligation. Earl Hopkins, Washington, D. C.

MEN AND WOMEN WANTED FOR GOVERNMENT parcel post and other government positions. \$90 month. Annual vacations. Short hours. Thousands appointments coming. "Pull" unnecessary. Farmers eligible. Write immediately for free list of positions open. Franklin Institute, Dept. M 85, Rochester, N. Y.

AGENTS—\$175 IN TWO WEEKS, MADE by Mr. Williams, Illinois, selling the Automatic Jack combination 12 tools in one. Used by auto owners, teamsters, liveries, factories, mills, miners, farmers, etc. Easy sales, big profit. Exclusive county rights if you write quick. Automatic Jack Company, Box O, Bloomfield, Indiana.

CATTLE.

REGISTERED JERSEY CATTLE FOR sale by C. S. Hart & Sons, Milan, Mo.

FINE REGISTERED HOLSTEIN BULL calf for sale. J. T. Meierdicks, Marion, Kan.

FOR SALE—ONE VERY NICE D. S. Polled Durham bull, 12 months, dark red, \$125.00. Enoch Lungren, Osage City, Kan.

FOR SALE—JERSEY BULL, SONIA'S Tormentor 84145, calved February 5, 1907. Cannot use longer. E. S. Parmenter, Route 1, Stockton, Kan.

FOR SALE—AN ENTIRE DAIRY HERD of 40 cows, Jerseys, Guernseys and Holsteins; all young, with milk records. Will sell reasonable. Satisfaction guaranteed. Jack Hammel, 215 Adams St., Topeka, Kan.

FOR SALE—75 HEAD OF YOUNG dairy cows, just shipped in from Minnesota. Jerseys, Guernseys and Holsteins. Prices reasonable for quick sales. Also have some extra fine 2-year-old bulls. O. N. Himmelberger, 405 Filmore St., Topeka, Kan.

HOLSTEIN CALVES—SIX CHOICE HOL- stein heifers and one bull, fifteen-sixteenths pure, three to four weeks old. \$20 each, crated for shipment anywhere. All nicely marked and from heavy milkers. Edgewood Farm, Whitewater, Wis.

AUTOMOBILES.

AUTOMOBILE—WILL TAKE \$1,025.00 for my \$4,000 automobile. Will demonstrate to buyer's satisfaction. No trades considered. Speak quick. Address Bargain A. Care Kansas Farmer, Topeka.

The GRANGE

DIRECTORY OF THE KANSAS STATE GRANGE OFFICERS.

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 Sec'y.....C. M. Freeman, Tippecanoe City, O.

"Was reading an article in Grange Items last week about the good we were doing ourselves and each other and wishing to hear from a few more Granges, so I take the privilege of letting you know when we meet and what we do.

"Pawnee Grange, 1441 Patrons of Husbandry, meets every two weeks on Friday nights at school district 49, where we discuss the farm and farmer in some way or other. Two weeks ago Friday they discussed oats and barley, while last evening was a called meeting for any business put before the Grange.

"The women were given the evening for talking about raising chickens. A short program was given and an excellent supper by table committee who had prepared for our regular meeting on Friday night, but which was put off until Saturday night on account of storm."

—E. T. M., Larned, Kansas.

April Program Suggestions.

- For the first meeting:
1. Roll call, responded to by half-minute talks on current events.
 2. Paper, "What place has poultry on the farm?"
- Discussions by different members: (1) Why should the farmer have pure-bred chickens, ducks, etc.? (2) Which is the more successful, the old hen or the incubator? (3) The proper construction of poultry houses.
3. Paper, "House cleaning: how can the labor be lessened?"
 4. Alternating songs and recitations.
- SECOND MEETING.**
1. Paper, "Small fruits and vegetables for home use and profit."
 2. Debate, "Resolved, that the consolidation of rural schools would be better than our present separate school district system."
 3. Decision of judges.
 4. Paper, "Which laws passed by the 1913 legislature are most beneficial to the farmer, and why?"
 5. Readings, recitations, etc.

ADDITIONAL TOPICS.

1. When should inspection of Granges be made, and how could they be more helpful?
2. What is meant by the "short ballot?"
3. How to get the diffident member to say enough and prevent the talkative member from saying too much.
4. How can the State Lecturer do more for the subordinate Granges?

April Programmes.

Oak Grange, 665.
 April 2, 2 p. m., conferring degrees.
 What the Grange has done for me, Mrs. A. H. Buckman.
 A 160-acre farm and its equipment, Mrs. M. L. Holloway.
 April 9, 8 p. m. Music, chorus.
 Advantages of a country girl, Miss Mabel Buckman.
 Advantages of a country boy, Clyde Corbett.
 Cornet solo, Will Moore.
 Reading, Mrs. Helm.
 April 16. Conferring degrees.
 Paper, Mrs. McClelland.
 Paper, Mr. Lyttle.
 Table committee, Mr. and Mrs. Frank Eckert, Mr. and Mrs. Coffman.
 April 23, 8 p. m., Music, the Grange.
 Paper, Mr. Bailey.
 Solo, Mr. Axtel.
 Indian Creek, 1431.
 April 1. Conferring degrees.
 Chickens—which breed to keep. The model chicken house; how to get the eggs, Mrs. C. K. Niccum.
 Discussion, by Mrs. Wm. Farnsworth, Mrs. A. C. Merritt, Mr. H. L. Moore and Mr. O. V. Conwell.
 Music, Ina Browning.
 April 15. Other people's children, Miss Effie Graham, of Topeka High School.
 Music by Tipton Sisters.
 Highland Park, 1507.
 April 8. Debate—Resolved, That this is a good world. Affirmative, Elsie Case and Carl Kasermann. Negative by Hazel Kykendall and Chas. Case.

SEEDS AND PLANTS.

SEED CORN—LAPTAD STOCK FARM, Lawrence, Kan.

ALFALFA SEED FOR SALE—HOMER McClure, Republic, Kan.

BOONE COUNTY WHITE SEED CORN, fine quality, \$1.50 bushel. J. B. Hunt, Oswego, Kan.

FOR SALE—100 BUSHELS OF WHITE Wonder seed corn. Call or write to E. S. Saylor, Route 2, St. John, Kan.

MAMMOTH BLACK-HULLED WHITE kafir, hand-threshed. Selected for early maturity, 17 years. J. G. Mitchell, Lafontaine Kan.

SELECTED WHITE KAFIR SEED, black hulled variety \$1.75 a bushel; big yielder. Hallgren Bros., Route 2, White City, Kan.

CATALPA TREES FOR SALE, 1 YEAR old. Genuine Speciosa, \$4.00 per thousand. H. G. Adams, Maple Hill, Kan.

WHITE-HULLED KAFIR, GROWN from heads selected in 1911. Cleaned and graded, \$1.00 per bushel. Schuyler Nichols, Herington, Kan.

WATER MELONS, HALBERT HONEY. Pure guaranteed seed, \$1.10 pound; extra good, 75c; good, 50c. H. A. Halbert, Originator, Coleman, Texas.

SEED CORN—CORN PLANTER (white), largest yield; highest germination; hand picked; graded; sacked. Per bushel, \$2.50; two or more bushels, \$2.25 bushel. George Dasher, Dwight, Kan.

SEED CORN—BOONE COUNTY WHITE, \$1.50 per bushel. This corn made 70 bushels per acre and germinated 100 per cent at Manhattan Agricultural College. C. L. Hall, R. F. D. 1, Winfield, Kan.

PLANT OUR KAFIR CORN. RIPE, selected seed from 80-acre field, averaged 56 bu. per acre. \$1.00 per bu., sacked, Topeka. Grand Champion white seed corn from \$280 prize corn, \$3.00 per bu. Snyder Seed Co., Topeka, Kan.

FOR \$1 I WILL SEND YOU EIGHT apple, pear, peach, plum or cherry 2 year 4 to 6 ft. grafted trees, or 75 raspberry, blackberry or dewberry, or 20 grape, currant, rhubarb or gooseberry, or 100 asparagus or 200 strawberry plants, or 25 Red Cedar or other evergreens, or eight 2 year Rambler roses. Catalog free. Manhattan Nursery, Box 1, Manhattan, Kan.

NICE WHIPPOORWILL COW PEAS, \$1.75 per bushel, sacked. Four varieties of native seed corn—Red's Yellow Dent, Hill-dreth's Yellow Dent, Ninety-Day Old Yellow, and Boone County White, shelled, cleaned and graded, put up in even weight sacks of 2 bushels each, \$1.45 per bushel, freight prepaid. Brooks Wholesale Co., Ft. Scott, Kan.

TYPEWRITERS

OLIVER VISIBLE TYPEWRITER FOR sale cheap. Perfect condition and does nice writing. Could send on trial. Charley Rickart, Route 5, Rosedale, Kan.

BEE SUPPLIES.

BEE SUPPLIES, ROOTS GOODS, SEND for catalog. O. A. Keene, 1600 Seward Ave., Topeka, Kan.

MISCELLANEOUS.

E. R. BOYNTON HAY CO., KANSAS City, Mo. Receivers and shippers. Try us.

ROOFING COMPOSITION, SLATE, TILE, sheet metal, tinwork. Rinner & Warren, Topeka, Kan.

WE PRESS, CLEAN, DYE, MAKE AND repair clothes. Glenwood Cleaners, Topeka, Kan.

H. W. BOMGARDNER, FUNERAL DI- rector. Excellent new chapel. Best attention. Topeka, Kan.

MAIL PRESCRIPTIONS TO GIBLER'S drug store. Filled correctly, sent parcel post. Topeka.

SELLING GOOD APPLES, BARREL, \$2.50; seed sweets, 90c; onions, 75c bushel. Paying 12c for hens. Cope's Sales System, Topeka, Kan.

SAFETY RAZOR BLADES RESHARP- ened better than new. Single edge blades, 25c dozen; double edge blades, 35c dozen. Mail to Brunt Drug Co., Topeka, Kan.

SEND KODAK FILMS TO US TO BE finished. Will develop and print first roll free. Percy S. Walker, Sixth and Jackson, Topeka, Kan.

FENCE POSTS—GENUINE RED CEDAR. The most durable. Shipped in mixed cars with cedar shingles. Write for freight paid prices. Keystone Lumber Co., Tacoma, Wash.

FOR SALE—MARLIN REPEATING shotgun, 12-gauge; two sets barrels, one for ducks, one for quail; good condition, little used. First check for \$25 takes gun. A. M. Graham, 625 Jackson St., Topeka, Kan.

General discussion.
 April 22. A Grange store in Highland Park. Would it pay? How much could we save? Etc. James Davidson.
 Wakarusa, 1495.
 April 4. Conferring degrees.
 Music.
 April 18. Conferring degrees.
 Music.
 "Feast" committee, Anna Sim, John Sim, Grace Robb, Harry Robb.

NOTICE.
 KANSAS FARMER wants a year book from every Grange. Please address Editor Grange Dept.
 We cannot publish these programmes without the year books. Get busy.

A simple but effective means of purifying the air of a cellar or any dark store room is to hang up lumps of charcoal in net bags. Every few weeks the charcoal should be taken out and heated thoroughly and returned to the bags.

A Customer For Everything You Have to Sell

The past few days we have had inquiries from no less than a half hundred readers who wanted to know where they could obtain kafir seed of a high-yielding type such as was described in our kafir article of March 1. We have also had numerous inquiries regarding cow peas for seed. We have also had two inquiries for aged Holstein bulls. These inquiries have all been referred to advertisers in KANSAS FARMER. The advertiser sells his stuff. If you have a surplus of any seed, live stock, or for that matter anything else to sell, our classified columns will sell it. Read the particulars at the top of this column.

WANTED

WANTED—STEAM TRACTION ENGINE, 16 to 20 horse-power; good condition. J. Vansweringen, Holton, Kan.

SITUATION WANTED.

WANTED—WORK ON THE FARM OR ranch by the month. Experienced. W. A. Bloom, Herington, Kan.

MARRIED MAN, 30 YEARS OLD, wants work on a farm. Experienced. Want house and good wages. J. C. Miller, Ingalls Hall, Atchison, Kan.

HORSES AND MULES.

FOR SALE—EXTRA GOOD YOUNG jack. Walter Strong, Moran, Kan.

SALE OR TRADE—1,000-POUND BLACK jack; home-bred English Shire stallions, 4 and 5 years. Wm. Rayl, Hutchinson, Kan.

FOR SALE—PERCHERON AND SHIRE stallions from rising 3 up. James Auld, Wakefield, Clay Co., Kan.

GOOD, BIG JACK, 15.1, STANDARD, 8 years, right every way. A money maker. \$600. L. Cox, Concordia, Kan.

REGISTERED SHETLAND PONIES— The pure Shetland is the true child's pony. Choice young stock for sale. Write N. E. Stuckey, Ottawa, Kan.

FOR SALE—TWENTY-FIVE SMALL Jennets, blue and black; weight, 500 or 600. Twenty-five apiece, or take in good jack. Ronald Smith, Route 1, Box 37, Wichita, Kan.

JACKS FOR SALE—LARGE MAMMOTH black jacks, white points, abundance of bone, size, head and ear; 9 months old to 6 years old; reasonable prices. Guaranteed. S. C. Nunnally, Route 6, Lexington, Ky.

HOGS.

TEN DUROC FAL BOARS AND 15 gilts, all vaccinated. A. G. Dorr, Osage City, Kan.

I HAVE SOME VERY NICE DUROC Jersey pigs, either sex, 6 months old, \$12 and \$15, out of Osage Chief, he by Tatarax by Ohio Chief. Enoch Lungren, Osage City, Kan.

POLAND CHINAS—TWO BRED SOWS, one sired by Growthy King, the other by O. K. Chief, and my herd boar sired by Long Orange. Orlando Fitzsimmons, Yates Center, Kan.

PATENTS

SEND FOR FREE BOOKLET. ALL About Patents and Their Cost. Shepherd & Campbell, Patent Attorneys, 500-R Victor Bldg., Washington, D. C.

PATENTS SECURED. IDEAS BRING wealth. Prompt service. Personal attention. Harry Patton Co., 323 McGill Bldg., Washington, D. C.

REAL ESTATE.

FOR SALE—A 320-ACRE FARM. WRITE to R. Hamble, Otis, Kan.

FOR SALE—EIGHT CHOICE BUILDING lots adjoining college grounds. Riley Ingraham, Manhattan, Kan.

SELL YOUR PROPERTY QUICKLY FOR cash, no matter where located. Particulars free. Real Estate Salesman Co., Dept. 77, Lincoln, Neb.

TO TRADE—A GOOD QUARTER SECT- ion of western land for cattle, hogs, or would take good auto for part. A. G. Woolk, Pawnee Rock, Kan.

I HAVE SOME CHOICE LAND AT ROCK bottom prices along the Colmor cutoff of the Santa Fe. Write me. H. W. Stubbs, Satanta, Kan.

160 ACRES, 2 1/2 MILES MEDFORD (county seat); 100 acres wheat, 6-room house, good barn, good water. All goes at \$7,500.00. J. H. Fuss, Medford, Okla.

TEXAS STATE LANDS, \$150 TO \$5.00 acre; one-fortieth down, balance 40 years. Information and Texas map free. Journal Publishing Co., Houston, Texas.

FOR SALE—ACREAGE AND PRICE PER acre: 160 at \$75; 200 at \$50; 77 at \$35. Well located and improved, near here. J. O. Treese, Baxter Springs, Kan.

500,000 ACRES FREE GOVERNMENT land now open for homesteading in Arkansas. Quality, location and law how to obtain it shown in booklet mailed you for 35 cents. J. O. Treese, Baxter Springs, Kan.

SECURE CASH FOR YOUR PROPERTY, no matter where located. To buy or sell, write for particulars, giving full description. National Property Salesman Co., Dept. 10, Omaha, Neb.

IF WE WOULD GIVE YOU A 40-ACRE farm free along our line of railroad, would you be willing to tell your friends about our land opening? For particulars address Mr. J. B. Clark, Land Commissioner Live Oak, Perry & Gulf Railroad Company, Box 187, Live Oak, Florida.

ALBERTA—320 ACRES, FOUR MILES Stettler. Very deep black loam; clay subsoil; 70 acres broken; all tillable; fenced; cross-fenced; mile church, school; good house, stable, granary. \$22 per acre; \$3,000 cash, balance to suit. About this and other bargains write George Grant, Herald Block, Calgary, Alberta, stating requirements.

DOGS.

SCOTCH COLLIES—WESTERN HOME Kennels, St. John, Kan.

WANTED—WHITE ESKIMO SPITZ puppies under 8 weeks old. Brockway's Kennels, Baldwin, Kan.

HOUNDS WILL TRAIL AND RUN UN- til holed or killed. Fox, Wolf, Coon, etc., pedigreed. Sent on 10 days' trial. R. F. Johnson, Assumption, Ill.

KANSAS STATE UNIVERSITY LIBRARY

RELIABLE POULTRY BREEDERS

The "Big Three" Poultry Farms

MYERS & STOVER, FREDONIA, KAN.

R. O. E. L. RED CHICKENS—Choice birds of correct color, shape and markings. 52 premiums—30 firsts—color and shape specials and silver specials, in this season's show. Five pens headed by Kansas State Show and other show winners. Eggs, \$1.00 to \$5.00 per 15; \$4.50 per 100.

INDIAN RUNNER DUCKS, American standard, light, fawn and white. Eggs, \$1.50 per 15; \$3.00 per 100. Pure White Runners, eggs, \$3.00 per 12. Both varieties are high class, prize winning birds. Off showed—never defeated. Erect, racy carriage, heavy layers, white eggshells.

BOURBON RED TURKEYS—Big, hardy, domestic as chickens. Fine color, yearling breeders. Eggs, \$3.00 per 11. Free catalog.

ORPINGTONS.

CRYSTAL WHITE ORPINGTONS—EGGS, \$1, \$3 and \$5 for 15. Mating list tells all about them. Chas. Amos, Peabody, Kan.

WHITE ORPINGTON EGGS, \$2.00 PER 15—\$10.00 per 100. Special price on larger amounts. Ed. LeClere, Central City, Iowa.

GUARANTEED PURE-BRED S. C. WHITE and Buff Orpington eggs, \$1.50 per 15. J. A. Blunn, Sta. A, Wichita, Kan.

SINGLE COMB BUFF ORPINGTONS—Eggs, \$1.50 per 15; \$5.00 per 100. C. F. Lane, Neosho Rapids, Kan.

SINGLE COMB BLACK ORPINGTONS—Write for mating list. Roy Park, Yates Center, Kan.

BUFF ORPINGTON EGGS, 15, \$1.50; 100, \$6.00; 30, \$2.00. Ella Sherbonaw, 625 Ninth St., Fredonia, Kan.

S. C. BUFF ORPINGTON EGGS, 100, \$4.00. S. C. White Leghorn, 100, \$4.00. Chicks, 10c. Mrs. J. A. Young Wakefield, Kan.

BUFF ORPINGTON HEN AND DUCK EGGS, white and fawn, and White Runner Duck eggs. Mrs. T. N. Beckey, Linwood, Kan.

CRYSTAL WHITE ORPINGTON EGGS from nice large snow-white stock, \$2.00, 15; \$8.00, 100. W. G. Langenhennig, Jackson, Mo.

SINGLE COMB BUFF ORPINGTONS EXCLUSIVELY, Choice farm flock, carefully mated. Eggs, \$4.00 per 100; \$1.00 setting. Charles Brown, Parkerville, Kan.

ORPINGTONS, WHITE AND BUFF. Also Rhode Island Reds. Males and females, eggs for hatching, and baby chicks for sale. Extra good stock, priced right for ready sale. C. W. Landrum, Carthage, Mo.

"SILVER PLUME" WHITE ORPINGTONS are heavy winter layers. Setting eggs at very reasonable prices. Silver Plume Orpington Farm, Topeka, Kan.

PURE-BRED SINGLE COMB BUFF ORPINGTON EGGS for hatching, \$4.00 per 100 eggs; setting, \$1.00. Mrs. Clyde Rupert, Clearfield, Iowa.

BIDE-A-WEE FARM BUFF ORPINGTONS won at Nebraska State Show, 1 pullet, 5 cockerels. Winners at Agra and Smith Center Shows. Roy J. Lucas, Agra, Kan.

KELLERSTRASS AND IMPORTED WHITE ORPINGTONS. Blue ribbon winners, Cedar Rapids, Iowa, Des Moines. Write for catalog. Gabel Mfg. Co., Hawkeye, Iowa.

CRYSTAL WHITE ORPINGTONS, KELLERSTRASS strains from his 330 matings. Fifteen eggs, \$1.50, delivered by parcel post. C. E. Owen, Lawrence, Kan.

WHITE ORPINGTON STOCK AND EGGS for sale, from Kellerstrass \$30 mating pens, Big winter layers. Address Martin Stephens, Lebanon, Neb.

EGGS FROM PRIZE WINNERS—SINGLE COMB White Orpingtons and Leghorns, English Indian Runner Ducks. Guaranteed to lay white eggs only. Mrs. R. H. Rhodes, Maize, Kan.

WHITE ORPINGTONS EXCLUSIVELY—Kellerstrass strain. All stock sold. Eggs from show winners, \$2.00 per 15. Satisfaction guaranteed. H. B. Humble, Sawyer, Kan.

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INDIAN RUNNER DUCKS, FAWN AND white. Last year's record as high as 88 eggs in 96 days. Eggs, \$1.00 per 12. Pen selected females mated to second prize drake Parsons show, 1911, \$1.50 per 15. Mrs. E. F. Lant, Dennis, Kan.

SEVERAL BREEDS.

PURE-BRED EGGS, SIXTY VARIETIES. Quick delivery. Catalog free. Jordan Poul- try Farm, Coffeyville, Kan.

BIG BARGAIN IN EGGS—RHODE ISL- and Reds, Turkeys, Runner Ducks, Guinea. M. E. Gallaher, Hammond, Kan.

43 VARIETIES, POULTRY, PIGEONS, ducks, geese, water fowl. Incubators. Feed and supplies. Catalogue 4 cents. Missouri Squab Co., Dept. C. V., Kirkwood, Mo.

EGGS FROM BLUE RIBBON WINNERS—Single Comb White Leghorns and Orping- tons, Fawn and White Indian Runner Ducks. Thol R. Wolfe, Conway Springs, Kan.

55 BREEDS PURE-BRED CHICKENS, ducks, geese, turkeys, Collie dogs. Catalog free. Belgrade Poultry Farm, Mankato, Minn.

BARRED ROCKS AND BRONZE TUR- keys; hens, pullets, cockerels. My entire flock of Bronze Turkeys. Mrs. E. C. Wag- ner, Holton, Kan.

ROSE COMB REDS, COLUMBIAN WYAN- dottes, Indian Runner Ducks, Golden Sea- bright Bantams. Eggs for hatching. Mail- ing list free. A. D. Willems, Minneola, Kan.

SINGLE COMB REDS—FIRST AND sweepstakes pen and sweepstakes pullet. Eggs, \$2.00, 15; range flock, \$4.00 per 100. White Indian Runner Duck eggs, \$2.00 per 13. F. Vrtiska, Pawnee City, Neb.

FOR SALE OR EXCHANGE—ONE 3- months-old Collie bitch and several pups sired by Imp. Ornskirk Sample. Want poultry or offer, no \$5 dogs. A. G. Hillman, Red Oak, Iowa.

HARRY INMAN & SONS, ROUTE 1, KEO- kuk, Iowa, can furnish you eggs for hatch- ing from Black Javas, Reds, Hamburgs, White Polish Bantams and Indian Runner Ducks. Write for mating list.

FOR QUICK SALE—EGGS—STOCK from Moore's Partridge Columbian Silver Pencilled Buff, Barred and White Plymouth Rocks; Cochon Bantams. Eggs prepaid. Favorite Poultry Farm, Stafford, Kan.

R. C. BLACK MINORCAS AND WHITE Orpingtons. Large number males and fe- males, reasonable. Many prize winners. Eggs in season. Dr. C. J. Forney, Woodward, Okla.

BOOK YOUR ORDERS FOR EGGS OF Barred, Buff, White Rocks, White and Brown Leghorns, Wyandottes, Langshans, Brahmans, Orpingtons, R. I. Reds, Geese, Ducks, Turkeys and Guinea with the Mon- roe Poultry Yards, Monroe, Iowa.

EGGS—EGGS—FROM THOROUGHbred Toulouse and Emden Geese; Turkeys; Pekin, Muscovy and Runner Ducks; Houdan, Rhode Island Reds, Wyandottes, Hamburgs, Orpingtons, Games, Plymouth Rocks, Lang- shans, Cochins; Pearl and White Guinea; Bantams. Hen eggs, 15 for \$1.00; by the hundred reasonable. Also rabbits. All kinds of fancy pigeons. Say what you wish and get a free circular. D. L. Bruen, Platte Center, Neb.

BIG SNAP IN WHITE PLYMOUTH Rocks—Two of the finest pens in the state must be sold quick—and the price is low. 1912 hatched, fully developed and over Standard weight. Pullets laying. Good enough to show and win. Buy now and have them for this year's breeding. This is unquestionably the White Rock bargain of the year. J. E. Spalding, Care Kansas Farmer, Topeka, Kan.

TURKEYS

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

MAMMOTH BRONZE TURKEY TOMS, \$5 to \$6. Hens, \$4 to \$5. Mary & M. D. L. Gibson, Eureka, Kan.

MAMMOTH WHITE HOLLAND TURKEY eggs, \$2.00 for 10. Mrs. E. B. Dorr, Ma- haska, Kan.

BRONZE AND BOURBON TURKEYS, Runner Ducks, White Wyandottes, Light Brahmans. Stock and eggs. Mrs. Emma Ahlstedt, Roxbury, Kan.

EGGS FROM PRIZE WINNING M. B. turkeys at Kansas State Show. \$3.00 for nine. Also Buff Orpington eggs. Mrs. E. D. Ludwig, Waynoka, Okla.

BARGAINS IN LAND

DICKINSON COUNTY BARGAINS

We have many fine river and creek bottom lands and also fine upland farms for sale. Good wheat, corn and alfalfa lands at reasonable prices. Write for lists. Men- tion this paper. BRINEY, PAUTZ & DANFORD, Abilene, Kan.

BARGAINS in Ness County land, large and small tracts. Write now for lists and literature. C. H. Brassfield, Ness City, Kan.

EXCHANGES EVERYWHERE. Get our fair plan of making trades all over the United States. Graham Bros., El Dorado, Kas.

WE TRADE OR SELL ANYTHING ANY- where. The Realty Exchange Co., 18-23 Randall Bldg., Newton, Kan.

FOR SALE—Farms and ranches in Kan- sas, Missouri, Arkansas, Oklahoma and New Mexico. Write for list of bargains. FUGATE & FUGATE, Newton, Kan.

A SNAP. \$80 acres, 3 miles from town; 150 acres in wheat, balance fine pasture. Price, \$15.00 per acre. Write Pioneer Realty Co., Protec- tion, Comanche Co., Kan.

KINGMAN 1,120 a. solid body, 350 cult., 500 COUNTY bot., fair bids., near market; KANSAS price \$32.50, half cash, bal. at 5 RANCH per cent. JOHN P. MOORE LAND CO., Kingman, 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.

320 A., 3 mi. from shipping point, 5 mi. from Hamilton; 150 a. of it is fine bottom land; part in alfalfa now; 5 a. timber, about 200 a. in cult., 9-room house, good barns. A fine farm, worth \$18,000. A. F. DOVE, Hamilton, Kan.

A HOME BARGAIN. 80 acres, well improved, 2 1/2 miles from town and graded school; good alfalfa land. Price \$6000. Write for list. V. E. Niquette, Salina, Kan.

A splendid grain and stock farm, fairly well improved; 2 miles from store, 3 miles to Delphos; 160 acres cultivated, 100 acres more tillable. Price, \$35 per acre. E. L. THOMPSON, Owner, Delphos, Kan.

EXCHANGE—Will trade my equity in 80 acres, Saline County; 6-room house, barn, well and mill, cistern, chicken house, some fenced hog-tight, 50 acres cultivated, 1 1/2 miles to school, 3 1/2 miles to two towns; mortgage, \$3,500, at 6 per cent. For live stock, hardware, or clear rental. ED. A. DAVIS, Minneapolis, Kansas.

STAFFORD COUNTY SNAP. 355 acres well improved, 5 miles of St. John. 275 acres in wheat, two-fifths goes with place; 40 pasture, 40 alfalfa. Price, \$75 an acre cash; \$15,625 cash, balance terms. Have snaps in Ness County land. Buxton Land Co., Utica, Ness Co., Kansas.

\$1.75 PER MONTH. For ten months, buys level, well located lot in Plains, Kan. "Special bargains." Only a few to be sold at this low price. Act quickly. JOHN W. BAUGHMAN, Plains, Kan.

FINE 160 A. FARM, lime stone soil, good house, barn, etc. Nicely located. Will produce wheat, corn, clover, alfalfa. Part cul- tivated, balance pasture, meadow. Close to Fredonia, Kan., in oil gas belt. Will take \$40 a. and is worth \$75. Address Owner, Lock Box 307, Fredonia, Kan.

120 ACRES. 3 1/2 miles of paved streets of Ottawa, Kan. Six-room house, barn 40x50, 15 acres hog- tight, 15 acres clover, 40 acres fine blue- grass, remainder in cultivation. Price, \$75 per acre. Terms to suit. Don't wait to write, come at once. Owner must sell. MANSFIELD, Ottawa, Kan.

TWO BARGAINS. 100 acres near Olathe, well improved, fine, \$110.00 per acre. Fifty-seven acres, improved, best of Kaw bottom land, greatest bargain in the county. AT KANSAS CITY'S DOOR. Write for lists. T. H. MILLER, Olathe, Kansas.

PURE BRED POULTRY

POULTRY WANTED.

PAYING 12c FOR HENS; STAGS, 9c; turkeys, 18c. Coops loaned free. Cope's Sales System, Topeka, Kan.

BANTAMS.

BANTAMS, SEBRIGHTS, JAPANESE, Cochins, Games, Rose Combs, Brahmans. Stock and eggs. Send 2c stamp for circular. A. A. Fenn, Box 105, Delavan, Wis.

CORNISH FOWLS

CORNISH EGGS, HENS, PULLETS. TRY the "only" table fowl. Write for low prices. L. C. Horst, Newton, Kan.

ANCONAS.

MOTTLED ANCONA EGGS, 15, \$1.50; 50, \$3.50. Hens, \$1.00. Mrs. Del Fitch, Burt, Iowa.

PRIZE WINNING MOTTLED ANCONAS. Eggs and baby chicks. Circular free. W. Hardman, Frankfort, Kan.

MOTTLED ANCONAS, BLUE RIBBON strain win, weigh, lay and pay. Write for catalogue. Erle Smiley, Beaver Crossing, Neb., Route 6.

BUFF COCHINS.

BUFF COCHIN COCKERELS, \$2.50 TO \$5. Pullets, \$2. Housel, Smith Center, Kan.

PARTRIDGE COCHINS, PURE-BRED. Write for prices. M. Lienard, Miltonvale, Kan.

FOR SALE—BUFF COCHINS OF QUAL- ity. Send for mating catalog. J. C. Baugh- man, Topeka, Kan.

200 ACRES FIVE MILES TO TOWN

14 miles from county seat; 60 acres culti- vated; half can be plowed; small house, spring water, plenty pasture and hay land. Price, \$6,000, half cash, balance four years at 5 per cent. Possession at once. Ideal dairy farm. The farms advertised last week sold. GET BUSY. F. L. NEWTON, Clay Center, Kansas.

THREE FARMS FOR SALE

One—320 Acres in Solomon Valley; 100 acres in alfalfa. All alfalfa land. One—70 Acres in Illinois. Part creek bot- tom, good house. Other improvements fair. One—50-Acre Farm in Illinois. Part creek bottom. Fair improvements. Full information and prices on request. J. E. BURBANK, Kansas City, Mo.

REAL BARGAIN

To make division of property, will sell 400 acres of bottom land in heart of famous Ar- tesian Valley of Meade County. Improved. Fine pump well and flowing well. 200 acres cuts two crops fine prairie hay. Adapted to alfalfa. Write PAUL R. WALTERS, Fowler, Kansas.

OUR RED LETTER SPECIAL. Will trade your property. Get into touch with live wires. Guaranteed deal. List to- day. Write for particulars. MID-WEST REALTY EXCHANGE, Riverton, Nebr.

138 ACRES splendid alfalfa, corn and or- chard land, 1 mile from Chetopa, Kan., 160 miles south of Kansas City; high bottom; never loses crops from overflow; 25 acres in alfalfa, cuts 4 crops a year; no irrigation necessary; 60 acres in wheat, to be fol- lowed by alfalfa fall of 1913; all fenced; no buildings; \$50 per acre; easy payments; other bargains; send for list. J. B. COOK, Owner, Chetopa, Kan.

BEST TOWN TO LIVE IN. If you would like to live in the most beautiful city in the West, with unsurpassed educational, business and religious advan- tages, in a city clean, progressive, where real estate values are low but steadily ad- vancing, where living expenses are reason- able, a city with natural gas at lowest price, address the SECRETARY of the COMMERCIAL CLUB, Topeka, Kansas.

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.

IDEAL FARM HOME

240 ACRES—60 acres choice bottom, fine improvements; 3 miles from good town. Price, \$16,500; easy terms. Address LOCK BOX 155, Clay Center, Kansas.

FOR SALE—A BARGAIN

Eighty to 100 acres in the famous Mem- bres Valley of N. M. Have two farms and can not farm both. Farms well improved. Address Lock Box 462. SAM S. McADAMS, Deming, New Mexico.

Ozark Farms

Timber, fruit and pasture lands for sale or exchange, from \$5 to \$100 per acre. If interested write Avery & Stephens, Mansfield, Mo.

Live Trades

Would you trade if suited? Write for our list of snappy exchanges and listing blank. Describe property first letter. Eberhard & Mellor, Whitewater, Kan.

BUY or Trade

with us—Exchange book free. BERSIE AGENCY, El Dorado, Kan.

PURE BRED POULTRY

BABY CHICKS.

STOCK EGGS, BABY CHICKS, LEAD- ing varieties. Circular free. K. I. Miller, Box K, Lancaster, Mo.

BABY CHICKS AND EGGS—WHITE and Barred Rocks, Rhode Island Reds, Buff Orpingtons, White Wyandottes, Light Brahmans. Kansas Poultry Co., Norton, Kan.

FOR SALE—HATCHING EGGS AND baby chicks. Blue Ribbon strain. Single Comb Rhode Island Red. Order now to insure delivery. C. W. Murphy, 1750 Mass. St., Lawrence, Kan.

Farmers' Want Seed Corn

How much have you to sell? What kind is it? What is the price? Where was it grown? Answer these questions in a small advertisement, and have it printed in this paper, where it may be read by more than 60,000 other good farmers. Among these 60,000 farmers are hundreds who are looking to buy the very thing you have, at even better prices than you may think to sell for. Write us what you have and we will cheerfully quote you prices. KANSAS FARMER, Topeka, Kansas.

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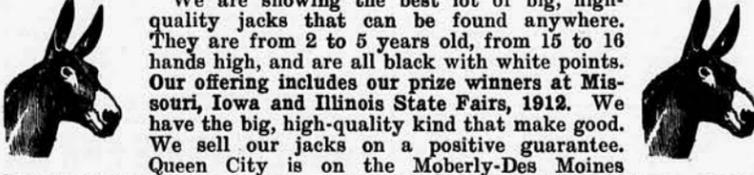
HORSES AND MULES

HORSES AND MULES

DEIERLING & OTTO'S

BIG WINNING JACKS

40 HEAD OF MAMMOTH JACKS 40



We are showing the best lot of big, high-quality jacks that can be found anywhere. They are from 2 to 5 years old, from 15 to 16 hands high, and are all black with white points. Our offering includes our prize winners at Missouri, Iowa and Illinois State Fairs, 1912. We have the big, high-quality kind that make good. We sell our jacks on a positive guarantee. Queen City is on the Moberly-Des Moines branch of the Wabash Railway. Good train service. Barns in town. Come, let us show you.

DEIERLING & OTTO, QUEEN CITY, MISSOURI

For Sale at Riverside Stock Farm—Registered Percherons.

10 head of young stallions from 2 to 3 years old. 4 head coming 3 years old that weigh from 1650 pounds to 1800 pounds. 4 head coming 2 years old that weigh from 1500 to 1600 pounds, blacks and dark greys. They are the big bone kind. 2 head standard bred and weigh from 1250 to 1280 pounds. 4 head of large young jacks, Mammoth bred, from 15 to 16, well broke. 2 black registered Percheron mares and 1 imported German Coacher, Mikus 4861 (133105), weight 1550, stands 16.2, and 7 years old. A warrantee goes with every animal as to soundness and breeding.

O. L. THISLER & SONS, Chapman, Kan.

Imported Stallions: Percheron, Shire, Belgian

Each year we show our new importation the same month they land. Each year they win more than all other exhibitors combined. At the American Royal this year they won second on 4-year-old Percheron; first, third and fourth on 3-year-old; first and third on 2-year-old, and first and champion group of five stallions. Our horses are handsome and the best to buy; our guarantee and insurance the very best.

PERCHERON IMPORTING CO., Chas. E. Kirk, South St. Joseph, Missouri.

PARK & FIRKINS' PERCHERONS AND JACKS.

Imported and American-bred stallions. All blacks and grays, all registered in P. S. of America. Some ton 3-year-olds. Also Kentucky and Missouri Mammoth Jacks from 15 to 16 1/2 hands high, heavy bone and good performers, registered. Everything sold with safe breeding guarantee. Barns in town, 50 miles north of Kansas City, on Rock Island Railroad, 35 miles east of St. Joseph on Burlington Railroad.

J. E. PARK AND A. A. FIRKINS, CAMERON, MO.

50—PERCHERON STALLIONS—50

Bishop Brothers have 50 big boned stallions that weigh 1,700 to 2,100 pounds that they can and will sell for less money than any firm in the business, quality considered. Write us what you want.

BISHOP BROS., TOWANDA, KAN.



First and Grand Champion Belgian Stallions at American Royal, 1912, owned and exhibited by J. M. Nolan at Paola, Kan. Our barns are filled with Percheron, Belgian, French Draft and Coach Stallions, imported and home-bred, priced to sell. Come and see me. We can deal.

J. M. NOLAN
Paola Kansas

PRAIRIE VIEW JACK FARM

LAWSON, MO.

Headquarters for Missouri, Kentucky and Tennessee Jacks; sold singly or in car lots. I guarantee more size, more bone and more good jocks and jennets than any breeder in Missouri. Every one black and from 15 to 16 hands high. Have them all ages. Thirty-five years doing business with the public, never had a lawsuit with one of my customers.

ED BOEN, Lawson, Mo.
Lawson 28 Miles from Kansas City.

DIAMONDS IN THE ROUGH

I am offering for sale at very low prices a fine lot of young Percheron, Belgian, French Draft and Coach Stallions. These horses are not fat, but in good, thrifty condition and will make good. Come and see me.

C. T. RICKETTS, Paola, Kansas.

Mammoth Jacks and Percheron Stallions

33 head of mammoth jacks and Percheron stallions—33. Jacks from 2 to 6 years old, from 15 to 16 hands high. Percherons from 2 to 5 years old weighing from 1,800 to 2,000 pounds. Farm and sale barn on 21st, one mile east of union stock yards.

J. C. KERR, Wichita, Kan.

JACKS AND JENNETS

17 head large mammoth black jacks for sale, ages from 2 to 5 years; large, heavy-boned, broken to mares and prompt servers. Prices reasonable. Come and see me.

PHIL WALKER,
Moline, Elk Co., Kansas.

AL. E. SMITH STOCK FARM.

Black Mammoth Jacks and Jennets, Percheron Horses. You will find what you want in large boned, registered, 15 to 16 hands standard. Special prices on fall sales. Both phones.

AL. E. SMITH, Lawrence, Kan.

Mammoth Kentucky Jacks

Nine black, mealy-nosed, heavy-boned fellows, 6 months to 7 years, weighing up to 1,000 pounds, and 15 hands high. Also 15 jennets, all ages. Inspection invited.

A. ALTMAN,
Almena, Norton County, Kansas.

Thompson's Mammoth Jacks

Forty head of Mammoth Jacks and Jennets. Ten big, high-class Jacks ready for service, from 15 to 16 hands high. Black with white points. Herd headed by Gen. Wood 850, winner U. S. championship cup, 1907. Jacks sold on a guarantee and priced right.

C. D. THOMPSON, Brimson, Missouri.

JACKS JACKS JACKS

I have an exceptionally good lot of jacks for sale. They are from 2 to 6 years old from 14 1/2 to 16 hands high, black with white points. They are all big boned mammoth jacks, priced to sell. Come and see them. Lawson is 38 miles from Kansas City.

MOSS B. PARSONS, LAWSON, MO.

GOOD YOUNG JACKS Ready for Service, \$300 to \$500. One Imp. 6-year-old Belgian.

BRUCE SAUNDERS, Holton, Kansas.

EXCELSIOR SHETLAND PONIES.

Registered stock. Ponies for sale, reasonable prices. Spotted and solid colors. W. Fulcomer, Belleville, Kan.

STANDARD BOOKS.
FOR THE FARMER AND BREEDER
Address, Kansas Farmer, Topeka, Kan.

FIELD NOTES

FIELD MEN.

O. W. Devine.....Topeka, Kan.
Jesse R. Johnson.....Clay Center, Kan.
W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Percherons.
May 21—J. C. Robison, Towanda, Kan.

Holstein Friesians.
Oct. 21-22, 1913—Woodlawn Farm, Sterling, Ill.

Shorthorns.
June 6—C. S. Nevius & Sons, Chiles, Kan.

Jersey Cattle.
April 12—D. T. McCarty at Hannibal, Mo. B. C. Settles, Palmyra, Mo., manager.
May 5—M. A. Sullivan and others, at Humphreys, Mo. B. C. Settles, Palmyra, Mo., manager.
May 7—R. F. Tesson at Clayton, Mo. B. C. Settles, Palmyra, Mo., manager.
May 24—R. M. Ball, Birmingham, Ala. B. C. Settles, Palmyra, Mo., manager.
June 11—H. J. Morris at New Cambria, Mo. B. C. Settles, Palmyra, Mo., Manager.

Poland Chinas.
April 3—Roy Johnston, South Mound, Kan.
April 18—W. F. Fulton, Waterville, Kan.
May 1—C. S. Nevius, Chiles, Kan. Bred sow sale.
Oct. 21—H. B. Walter, Effingham, Kan.
Feb. 10—H. B. Walter, Effingham, Kan.

Hampshires.
Nov. 4—H. D. DeKalb, DeKalb, Iowa. Sale at Council Bluffs, Iowa.

Howell Brothers Change Card.

Howell Bros., Duroc Jersey breeders of Herkimer, Kan., change their advertising copy this week and write that they are all sold out on bred sows but have choice boars of serviceable age, also fall pigs of either sex sired by the herd boar, Joe's Pride, a son of the noted world's fair winner, Joe. The brothers add that they already have 65 choice spring pigs and 20 or 25 sows yet to farrow.

John D. Ziller of Hiawatha, Kan., has issued a new and extremely interesting catalog on seed corn. This new booklet of his contains a lot of information for anyone interested in seeds and poultry, and no doubt will be sent for the asking. Mr. Ziller has added a new department to his business by putting in a line of standard garden seeds.

E. E. Hazen of Hiawatha, Kan., who owns the Tilebrook flock of Hampshire sheep, writes: "I forgot to tell you that last fall I bought a Walnut Hall ram lamb that was first at New York and Missouri State Fairs and second at Ohio, Michigan and Indiana, and was in the first prize pen all through the circuit. Lambs from him are now arriving. I have the best yearling rams I have had for years."

Duroc Sale at Formoso.

The Sturtevant & McMullen Duroc Jersey sale held at Formoso, Kan., March 13, was very well attended in spite of rainy weather, and satisfactory prices were received. The offering was a good one and was sold in nice breeding form. E. A. Trump of Formoso topped the sale at \$100, buying the outstanding good individual, No. 1 in the sale. Col. John Brennan did the selling and Walter Ward represented Kansas Farmer. Following is a partial list of buyers:

- 1—E. A. Trump, Formoso.....\$100.00
- 2—W. E. Monnesmith, Formoso..... 44.00
- 3—A. L. Wylie, Clay Center..... 40.00
- 4—W. M. Baird..... 34.00
- 5—W. D. Beam, Courland..... 30.00
- 6—C. E. Thomas, Webber..... 38.00
- 7—A. M. Rinehart, Smith Center..... 37.00
- 8—R. R. Miller, Clay Center..... 30.00
- 9—J. B. Swank, Blue Rapids..... 31.00
- 10—H. P. Hart, Formoso..... 38.00

Last Chance Johnston Big Poland Sale.

On April 3 Roy Johnston of South Mound, Kan., will sell one of the best offerings to go through a sale ring this spring. In fact it is about the last chance to buy Poland China brood sows. Mr. Johnston has been and is now a booster for the big-type Poland China. He is not afraid to go out and pay the price for the good ones. He is putting up an offering this time that is superior to any he has ever offered for sale in the past. They have the size, bone and stretch so essential in the big type kind, and they are bred along lines that insure their transmitting these characteristics to their produce. His faith in what he has to offer is shown in the broad statement and guarantee in the catalog. Everything must be as represented or your money back. You take no chances with a guarantee of that kind. The offering will consist of 46 bred sows and gilts, six late summer boars all fashionably bred from a big-type standpoint. Please send for catalog and arrange to come to sale or send a bid to O. W. Devine, representing Kansas Farmer, in care of Mr. Roy Johnston at South Mound, Kan.

Important Jersey Cattle Sales.

Attention is called to the page advertisement of B. C. Settles of Palmyra, Mo., in this issue of Kansas Farmer. Mr. Settles is one of the most successful managers of Jersey sales now engaged in the business, and has a record for high averages on sales held under his management. He has had years of experience in breeding and selling Jerseys, and in addition to managing sales he has equipped a special department for tabulating pedigrees. His two-color type-written pedigree is accurate, neat and very attractive, and is far in advance of anything in that line on the market. His tabulation is taken from the herd register of the A. J. C. C. herd books and his charges are very reasonable. The sales advertised in this issue of Kansas Farmer, to be held under Mr. Settles' management, are as follows: D. T. McCarty, Hannibal, Mo., April 12; M. A. Sullivan and others, dispersion sale at Humphreys, Mo., May 5; Robert F. Tesson, Clayton, Mo., May 7; and H. J. Morris, New Cambria, Mo., June 11. The Jerseys to be offered in these sales are a high-class lot in every way. They are the kind that pay their way every day in the year, and while not entirely fashionably bred, they are representatives of the blood line of the breed that has always made good. They are the utility kind. Jersey breeders, dairymen and farmers wanting Jerseys will find these offerings will interest them. They have been carefully selected by Mr. Settles and his invariable rule is to offer only high-class Jerseys in sales under his management. This will be an opportunity to purchase Jerseys that are bred right and that are extra good as individuals and at your price. For catalog, write Mr. B. C. Settles, Palmyra, Mo., sales manager. Please mention Kansas Farmer

HORSES and JACKS

FOR SALE—Two Percheron Stallions, aged 5 and 7 years. Will weigh 1,700 and 1,900 pounds. Both are fine breeders. Also one 7-year-old jack, weight 1,000 pounds; black with white points. A good performer and fine breeder. All priced to sell quick.

ISAAC C. LOHMAN, R. 3, Turney, Mo.

Imported and Home Bred Stallions and Mares

PERCHERONS—BELGIANS—SHIRES

Percherons—Belgians—Shires. The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perch this year. See what we have before buying elsewhere.

Address, **HART BROS., Osceola, Iowa.**

HOME-BRED STALLIONS \$275 to \$650. Imported stallions \$700 to \$1,000, two higher. All draft breeds. Reference: Any banker in Creston.

FRANK L. STREAM,
Creston, Iowa.

JERSEY CATTLE

THE ENNIS FARM

Horline Station, Mo.
(Thirty Miles South of St. Louis.)

JERSEY CATTLE—BIG-BONED SPOTTED POLANDS.

Send for quarterly bulletin listing stock for sale. Best breeding and individuals. Prices reasonable.

ALBERT S. ENNIS, Horline Station, Mo.

FOR SALE—One of the greatest young Jersey bulls ever bred. Sired by Eminent Cornet, by Eminent 2d, which sold for \$10,000. Dam of the calf is Sultana's Golden Tipsey, an official test will make a Register of Merit cow. Her dam gave 10,500 pounds milk, from which 740 pounds of butter was made in one year. Nice fawn color and elegant type.

R. J. LINSOTT, Holton, Kan.

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 Oakland. 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.

JERSEY BULLS.

For Sale—An extra good tried sire of Tormentor breeding. Cannot use any longer. Also, a 2-month-old calf of St. Lambert breeding.

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.**

AUCTIONEERS.

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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.

GOLDEN RULE JERSEYS.

Richly bred heifers and bull calves for sale. The blood of Golden Lad and other noted sires. Farm one mile north of town. Inspection invited.

Johnson & Nordstrom, Clay Center, 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.

POLAND CHINAS

GREEN LAWN STOCK FARM.

Some good September and October pigs at \$30 a pair. Strictly big type breeding. Don't forget my February 22 bred sow sale. Write for catalogue.

A. J. ERHART & SONS, Adrian, Mo.

STRAUS SPOLAND CHINAS

Model Bill 54834 heads our herd, assisted by Model Wonder, one of the largest yearling boars of the breed. Fifteen spring boars for sale, priced to move them.

O. R. STRAUSS, Route 1, Milford, Kan.

IMMUNE SPRING PIGS.

Seventy-five Poland Chinas, out of 700 and 800-pound sows. Booking orders now, \$15 each, either sex; \$45 per pair, when old enough to wean.

J. L. GRIFFITHS, Ellet, 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.

HERD BOAR FOR SALE.

Because I cannot use him longer I will sell my herd boar, Colossus Pan, a son of Colossus and out of the noted Expansion sow, Queen Over Pan. Also fall pigs, either sex.

Hubert J. Griffiths, Clay Center, Kan.

SATISFACTION OR MONEY BACK.

For sale, 12 young boars, will make herd leaders; 30 choice gilts; 100 spring pigs. Prices reasonable.

W. A. BAKER & SON, Butler, Mo.

POLAND CHINAS

For sale. A May litter, 2 boars, 5 gilts. Fine ones. Breeding the gilts to one of the best boars in the land. \$20 to \$30. No disease.

JEWELL BROS., Humboldt, Kan.

DUROC JERSEYS

TATARRAX HERD DUROCS

Chief Tatarrax 74239 at head of herd. For sale—Six fall yearling Tatarrax gilts that raised October litters and are now bred for May litters. Price, \$40. Also fall gilts and fall boars in pairs and trios not related at reasonable prices. Write at once if you want them. Mention Kansas Farmer.

HAMMOND & BUSKIRK, Newton, Kan.

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

QUIVERA HERD OF DUROC JERSEYS

A few choice summer boars and gilts by Quivera 106611 and M. & M.'s Col. 111096, 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.

PERFECTION STOCK FARM DUROC JERSEY HOGS.

For Sale—30 Spring Duroc Jersey gilts and spring boars, pairs and trios, not related. We sell at farmers' prices. CLASSEN BROS., Union, Okla.

GOLDEN RULE DUROC JERSEYS

Headed by the great Dreamland Colonel sows; carry the blood of noted ancestors. Stock for sale.

LEON CARTER, Asherville, Kan.

Crow's Durocs

Twenty-one good Duroc boars from 125 to 250 pounds. All vaccinated. Price reasonable.

W. R. CROW, Hutchinson, Kansas.

MARSH CREEK DUROCS.

Bred gilts all sold. Choice fall boars and gilts at current prices. Choice breeding and individuality.

R. P. WELLS, Formoso, Kan.

DUROC BRED SOWS FOR SALE.

Choice individuals, sired by Tatarrax Chief, White House King and Carl Critch. Reasonable prices.

ALVIN VILANDER, Manhattan, Kan.

OHIO IMPROVED CHESTERS

O. I. C.—125 Head Hogs

Pigs in pairs. Bred sows, and 40 boars ready for service. Fifty fall gilts.

W. H. LYNCH, READING, KAN.

WOLFE'S O. I. C. SWINE.

Large, prolific kind, March and April litters. Gilts bred or open. Fall pigs. Prices low. Pedigree free. Write your wants.

D. W. WOLFE, Route 2, Carrollton, Mo.

O. I. C. PIGS—PAIR, \$25.00.

H. W. HAYNES, MERIDEN, KANSAS.

FIELD NOTES

Poland China Bred Sow Sale May 1. On May 1, C. S. Nevius will sell 10 tried sows and 30 spring yearlings, all bred for May, June and summer litters, and a few good serviceable boars. The blood lines are Designer, Major Look, Good Metal and Forest Wonder by Expansion Wonder, the Missouri grand champion and out of the good old sow Forest Rose, she by King Blain by Blain's Wonder. The offering will be a splendid lot of sows and gilts bred to or sired by these great herd boars. Please watch for sale ad in Kansas Farmer and send your name early for a catalog. Remember the hog sale is May 1 and the annual Shorthorn cattle sale is June 6. Mention Kansas Farmer when you write.



General Wood, herd header in Mammoth herd of Jacks and Jennets owned by C. D. Thompson, Brimson, Mo.

Richards & Son Have Good Sale. The first annual sale of Shorthorn cattle and big-type Poland China hogs held by J. F. Richards & Son of Bevier, Mo., March 19, was one of the successful sales of the season. The offering of both cattle and hogs was high class in every way and breeders showed their appreciation of the offering by liberal bidding. The bred sows averaged \$45 per head, and a lot of winter pigs sold for fair prices. Five under-year bulls sired by Richards & Son's great herd bull, Lord Collynie, one of the best Shorthorn bulls now in service, averaged \$139 per head. Seven under-a-year heifers sired by the same bull averaged \$112 per head, and the general average on the cattle sold was \$117 per head, with a larger per cent of the offering under breeding age. A. G. Duffie of Kirksville, Mo., who is building up a select herd, was one of the good bidders and bought several of the good ones. J. W. Hamm of Oregon, Mo., also bought a number of choice animals. The offering was sold by Colonels Harriman and Cottingham. The following is a list of the principal buyers and prices paid:

Table listing buyers and prices for cattle and hogs, including names like G. Duffie, J. W. Hamm, and prices ranging from \$42.50 to \$125.00.

Table listing buyers and prices for hogs, including names like H. L. Pritchett, J. F. Adams, and prices ranging from \$100.00 to \$165.00.

Trotter's Jack Sale. The sale of jacks and jennets held by William T. Trotter at Mt. Airy, Iowa, March 13, was well attended by buyers from Kansas, Missouri and Iowa, although the weather conditions were very unfavorable. The jacks sold at an average of \$68.11 and the jennets at \$90. The top for jacks was \$1,000, and was paid for Jumbo Lad, a 3-year-old, sired by Keno, D. J. Hutchings of Sterling, Kan., being the purchaser. This sale was to have been held February 27 but was postponed on account of the blizzard on that date. The entire offering was good and under more favorable weather conditions would have sold for better prices.

Logan Valley Hampshires. Roy E. Fisher of Winside, Neb., owner of Logan Valley Hampshire herd, is one of Nebraska's progressive young breeders and his herd is one of the select Hampshire herds in that state. His herd boars, Winside Star and Nebraska Chief, are two of the good Hampshire sires now in service. Winside Star is by Nebraska Top. He was first at Sioux City, Iowa, Interstate Fair in 1912 in a strong show. Nebraska Chief is by Iowa Chief. He was first at Sioux City and second at Nebraska State Fair, 1911. Both of these boars are the right type. They are both big fellows and are proven breeders. Mr. Fisher's sow herd is an extra good one and many of the sows of his herd are prize winners. He has sows by Blythesdale Duke, Missouri King, and a number of sows from the Munson herd. Among them is Miss Mona, the undefeated show sow at five of the leading state fairs in 1911; also Alci M., and other undefeated show sows. Mr. Fisher has a fine lot of early spring pigs sired by his two prize-winning boars and out of his undefeated show sows. He will have a show herd this year at the leading state fairs that will be in the winners' class, and will have a fine offering of breeding stock for the fall trade.

POLAND CHINAS

C. S. NEVIUS, GLENWOOD HERDS The Designer kind of large type Poland Chinas and Searchlight Short-horns

We are sold out of early-bred sows but have some good young boars, ready for service, to spare. Sired by Designer 39199, Major Look 48028, Good Metal 51700, or Forest Wonder 62829. Poland China sale May 1. Shorthorn sale June 6. Send for catalogs. C. S. NEVIUS, Chillicothe, Kansas.

Dean's Mastodon Polands. The big-boned type, will weigh when mature \$00 to 1,000 pounds. Boars, Bred Sows and Gilts for sale. ALL IMMUNIZED BY DOUBLE TREATMENT AND ARE IMMUNE. Phone, Dearborn; Station, New Market, and Postoffice, Weston, Mo. Address CLARENCE DEAN, WESTON, MO.

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.

BRED SHROPSHIRE EWES Both imported and American bred, and all mated to the best imported rams obtainable. These rams have won many important English prizes, as well as the most coveted American blue ribbons, and now head the flocks at Henley Ranch. Our flocks are large and we can offer you the best values on all classes of Shropshires. We absolutely guarantee all stock shipped. Place your order with us early, while the ewes can be safely handled. HENLEY RANCH, GREENCASTLE, MO. Members American Shropshire Registry Association. Henley & Vrooman, Managers.

SHROPSHIRE SHEEP

Yearling and Two-Year-Old Shropshire Rams, sired by imported sire and out of registered ewes, priced right for quick sale. ED GREEN, Howard, Kan.

RED POLLED CATTLE

PHILIPS COUNTY RED POLLS. For Sale—Cows and heifers, sired by the great Launfal and bred to Crema 22d. CHAS. MORRISON & SON, Phillipsburg, Kan.

AULD BROTHERS Red Polled Cattle Five head of bulls from 11 to 17 months old, ready for service and for sale right. Herd headed by Prince, one of the best sons of Actor. AULD BROS., Frankfort, Kansas.

Coburn Herd of Red Polled Cattle and Percheron Horses. 25 extra good young bulls and 7 first class young stallions for sale at bargain prices. Also young cows and heifers. GEO. GROENMILLER & SON, Pomona, Kansas.

SHORTHORN CATTLE

Choice Young Shorthorns Several blocky, sappy bulls, in age from 7 to 12 months. Females all sold. 25 choice strictly big type Poland China fall boars and gilts. \$20 to \$25 each. IMMUNE FROM CHOLERA. S. B. AMCOATS, Clay Center, Kan.

PEARL SHORTHORN HERD. One of the oldest and strongest herds in the west. Scotch and Scotch-topped. Reds and roans. Good individuals and tracing to noted ancestors. Choice young bulls for sale. Sold out on females. Can ship over Rock Island, Santa Fe or Missouri Pacific. Inspection invited. C. W. TAYLOR, Abilene, Kan.

High Class Shorthorn Bulls "LORD'S DUPLICATE"—Fit for light service and good enough to show anywhere or head any good Shorthorn herd. Price, \$150. Nice young bulls at \$90 to \$100. LAUDE & SON, ROSE, KANSAS. 125 Miles Southeast of Kansas City.



The Archias Seed Store of Sedalia, Mo., has just issued a new and beautifully illustrated catalog which will be sent free to those people who are interested in seeds of all kinds.

POLAND CHINAS

Poland China Bred Sow Sale May 1. On May 1, C. S. Nevius will sell 10 tried sows and 30 spring yearlings, all bred for May, June and summer litters, and a few good serviceable boars. The blood lines are Designer, Major Look, Good Metal and Forest Wonder by Expansion Wonder, the Missouri grand champion and out of the good old sow Forest Rose, she by King Blain by Blain's Wonder. The offering will be a splendid lot of sows and gilts bred to or sired by these great herd boars. Please watch for sale ad in Kansas Farmer and send your name early for a catalog. Remember the hog sale is May 1 and the annual Shorthorn cattle sale is June 6. Mention Kansas Farmer when you write.

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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.

BRED SHROPSHIRE EWES Both imported and American bred, and all mated to the best imported rams obtainable. These rams have won many important English prizes, as well as the most coveted American blue ribbons, and now head the flocks at Henley Ranch. Our flocks are large and we can offer you the best values on all classes of Shropshires. We absolutely guarantee all stock shipped. Place your order with us early, while the ewes can be safely handled. HENLEY RANCH, GREENCASTLE, MO. Members American Shropshire Registry Association. Henley & Vrooman, Managers.

HAMPSHIRE HOGS

ECLIPSE FARM HAMPSHIRE. Tried sows and gilts for sale, bred for spring farrow. A few fall pigs left. A. M. BEAR, Medora, Kan.

MULE FOOT HOGS

THOMPSON'S growthy Mule Foot Hogs have won more first prizes than any herd in America. Stock of all ages for sale, sired by or bred to my 6 State Fair first prize winning males. Prices low, quality high. Write for prices and information. CHAS. K. THOMPSON, Letts, Ind.

HOLSTEIN CATTLE

Holsteins For Sale Seventy-five head high-grade Holsteins consisting of coming 2-year-olds and about 50 head of heavy springers from 2 1/2 years to 5 years old. All first class dairy cattle. Also registered bulls. IRA ROMIG, Station B, Topeka, Kan.

M. E. MOORE & CO. Cameron, Missouri. A special bargain in registered young bulls, sired by our herd bull, and tuberculin tested. Females all sold at present.

MISSOURI HOLSTEINS. Largest herd of Holsteins in the state. Nothing but registered stock for sale. Eighty head to choose from. Twenty-five bulls, all ages. Will sell one to a carload. Write us just what you want and we will describe and price same to pick from. S. W. COOKE & SON, Maysville, Mo.

Pure-Bred Registered HOLSTEIN CATTLE The Greatest Dairy Breed. Send for FREE Illustrated Booklets. Holstein-Friesian Association, Box 114, Brattleboro, Vt.

CHENANGO VALLEY GRADE HOLSTEINS Fifty extra fine, well bred, nicely marked young cows to freshen in two months. Also high grade, well bred heifers, coming two and three years old and bred to registered bulls. F. J. HOWARD, Bouckville, N. Y.

HOLSTEINS FOR SALE. Fifty head of registered heifers and bulls; also 75 head bred heifers and young cows, \$58.50 up. Come and see them. M. P. KNUDSEN, Concordia, Kan.

CORYDALE FARM HERD. Holsteins. For sale, three registered bull calves, 1 to 5 months old. Also 20 head of 1/2 or better grade Holstein cows and heifers. L. F. COBY, Belleville, Kansas.

HOLSTEIN BULL CALVES always on hand, and worth the price. H. B. COWLES, Topeka, Kansas.

POLLED DURHAM CATTLE

ROAN HERO, THE INTERNATIONAL CHAMPION, AND ARCAGIA PRINCE X 8079-308159 the first prize winners, head my herd of Double Standard Polled Durhams. M. P. Ry, 17 miles S. E. of Topeka, Kan. Farms adjoins town. Inspection invited. D. C. VAN NICE, Richland, Kan.

POLLED DURHAMS. One yearling bull and several bull calves sired by Roan Choice (junior champion of 1911), also a few young cows and heifers from the greatest show and prize winning herd in Kansas, priced reasonable. C. J. WOODS, CHILES, KANSAS.

GALLOWAY CATTLE

SMOKY HILL RANCH. Largest Galloway Herd in the West. Also trained Russian wolf hounds. Orders booked for puppies when old enough to wean. First orders will have choice. E. J. GUILBERT, Wallace, Kansas.

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I know just what a man is up against with dull disks. I've been there myself. Many a day I've sat on the seat of a plow and watched the disks bounce over the cornstalks or stubble—too busy to go to town to have the disks sharpened. But all the time I knew I was losing money by not being able to prepare the soil properly. Then when I did grab the time, I went to the blacksmith. I plunked down 30 cents for each disk he sharpened. And he usually managed to ruin a disk or two every time. Ninety-nine out of one hundred disks are spoiled by fire. You know these are true facts. That's why I know you will be quick to snap me up on my

FREE TRIAL OFFER

I am willing to send you my "Favorite" Disk Sharpener for a 30-Day FREE TRIAL. Don't send me a dollar till you've given my machine a thorough tryout. It is so simple that even a 12-year-old boy can operate it. I guarantee it will put the dulllest blade in perfect cutting condition in five minutes. If you are not convinced that "The Favorite" is the best sharpener you ever saw, even at twice the price, simply return it at my expense—no questions asked. If you are certain that my sharpener is all that I claim for it, and more, send me \$14.35. THIS IS MY SPECIAL PRICE FOR 30 DAYS. If you want fuller particulars, write me today.

Wm. F. RESCHKE MACHINE WORKS

910 North Washington

Wichita, Kansas.

Influence of the Silo.

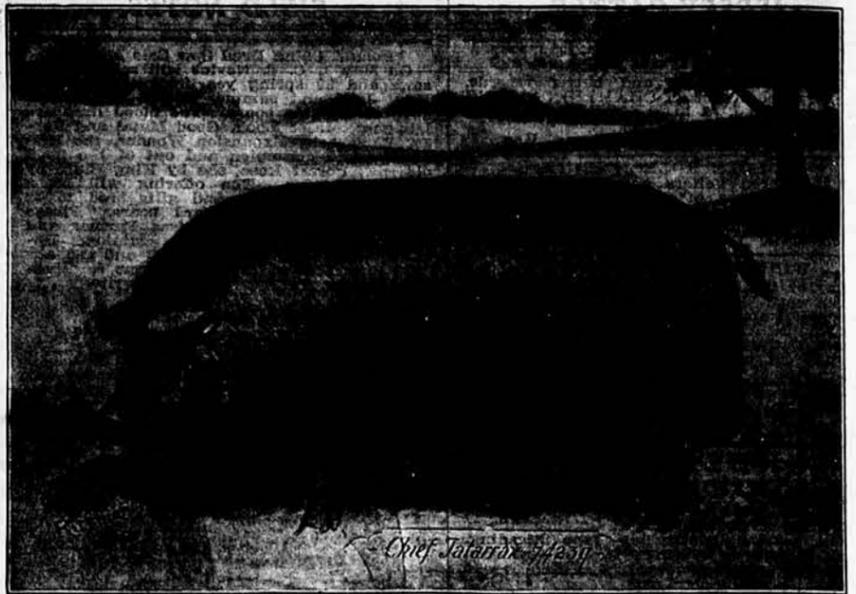
Down in Sumner County, which used to be one of the greatest wheat counties of Kansas but which was compelled to give attention to live stock and diversified farming, the silo has had a powerful influence. The local paper reports that J. B. Lipe bought the contents of two silos when he began to feed his steers last fall. He says: "This feeding silage was something new to me, but I must say I made a big hit when I made that purchase. There is no doubt in my mind as to what silage will do, and I firmly believe that the country will be dotted all over with silos next year."

Mr. R. E. Phelps of Ponca City, Okla., is also quoted in this connection. He says: "Silage with a little corn and cottonseed meal made up the rations on which our steers were fed. Our ranch has nine silos, each with a capacity of 250 tons. These were filled with corn and kafir, and when the silage was fed with a little grain or cottonseed meal

it proved to be the cheapest of all rations."

C. M. Garver, one of the best cattle feeders in Dickinson County, as well as a breeder of Shorthorns, erected his first silo in 1910 and has therefore had three years' experience in feeding silage. He uses corn and feeds the silage to fattening cattle. From his experience he finds that a ration composed of 20 pounds of silage and 20 pounds of corn will make as great or greater daily gains as will 28 pounds of corn without the silage, and he argues from this that 20 pounds of silage is equal in feeding value to eight pounds of corn. This, however, does not take into consideration the increased succulence of silage, which keeps the cattle in better condition and makes them less liable to digestive disturbances than they would be if fed on corn alone.

Ammonia water that has been used for washing may be used for plants. It is an excellent fertilizer.



Chief Tatarax.

At the head of one of the best herds of Duroc sows in Kansas is the great show and breeding boar, Chief Tatarax, owned by Hammond and Buskirk at Newton, Kan. This herd of sows has all the combined size with smoothness and quality, great backs, heavy bone and substance, together with easy feeding qualities. The herd is strongly bred in the blood lines that are up to date and in demand. Ohio Chief, through Tatarax, Colonel, Tip Top Nitcher and other prominent sires are among the blood lines. Mr. Buskirk, the junior member of the firm, is a young man well known among Duroc breeders. This firm is offering a few bred sows and gilts for sale, bred for May and June litters. They are out of large, roomy sows, and are of noted breeding. The prices are reasonable. Better write them today, and kindly mention Kansas Farmer.

What Do You Think?

What do you think of that full-page advertisement of Jersey cattle sales on the inside back cover page of this issue of Kansas Farmer? Mr. E. C. Settles, Palmyra, Mo., is a professional expert in the handling of Jersey cattle sales—compiles the pedigrees, publishes the catalog, hires the auctioneers, and does the advertising—and saves all worry and risk to the breeder. He wants to know what you think of his page advertisement. Drop him a card and give your opinion, favorable or otherwise. He will thank you for it, and if you are interested in Jersey cattle he will send you a catalog of any one or more of these sales. Write your opinion of the ad, please.

Notice the change in Laude & Sons' ad this week. The bull, Lord's Duplicate, is a calf of great excellence, a fine show prospect and of unsurpassed breeding, his sire being Lord Mayor '3d 249943, a great son of Lord Mayor out of Forest Daisy, full sister to the dam of New Year's Delight, the sensational 1911 grand champion. Lord's Duplicate's dam is an extra good, smooth, beefy cow and a heavy milker, a daughter of Prime Minister, whose dam, Goldfinch, was a full sister to Lavender Vincent, International grand champion. The rest of the pedigree is equally good. If you see this calf you will buy him. They also offer nice young bulls at a lower price. Write them for particulars and go and see their herd.

When writing advertisers, please mention Kansas Farmer.

Gulibert Writes.

Mr. E. J. Gulibert of Wallace, Kan., writes as follows: "I am all sold out of Galloway bulls except coming yearlings. The cattle have gone through the winter in nice condition and the demand was never so good." Mr. Gulibert adds that he has just bought a very choice wolf hound bitch from Connecticut and thinks she will be a fine addition to his kennel. He will have several nice litters of puppies in a short time now, and will book orders for them, first come, first choice, as long as they last. Visitors are always welcome at Smoky Hill Ranch, and anyone in the market for Galloway cattle or trained Russian wolf hounds should place their order early.

Lamer Offers Jacks.

Fifteen good Kentucky Jacks are offered for sale by C. W. Lamer, Salina, Kan., in addition to the big stallion bargains offered in his advertisement. Write at once.

Could Sell Many More.

Please take my advertisement out of Kansas Farmer for the present, as I am all sold out. We have sure had a good trade on gilts and could have sold as many more if we had them.—J. L. EDWARDS, Breeder of Hampshire Swine, Edmerville, Mo.

"Ikey Buyer: Never mind who 'is president," Bryan or Wilson. Buy a through ticket to Frank Iams' horse emporium, St. Paul, Neb. Walk right in, "shake hands" with the "peaches and cream" horseman, and say "Hello." He will meet you with a "smile that won't rub off" and treat you like a "king," and make a "horse show" for you that is worth going 2,000 miles to see. Iams' Percheron and Belgian stallions and mares are in the "pink of condition" and ready for a "quick selling," and must be sold. They are the "best ever"—larger horses of quality and extra big bone—more "Paris and European prize winners" than any man in the United States, but close money and "Iams' cash" opened the doors of the best horsemen in France and Belgium, and Iams made a "big killing"—bought "tops," "worth the coin"—cut the melon—and Iams' customers get the benefit of his "big, easy buy." Iams has opened up a new barn of 30 horses (not seen by public before). "Buzz around"—sing Iams' songs—"Buy Horses of Iams," as he is selling fancy "sensational"—"black boys" cheaper than ever. More and better horses for the money.—Iams' catalog is an "eye-opener"—the "book of books"—and has a \$1,000 bargain on every page. It's the man behind the dough" that has "competitors up in the air" over his big horses and low prices. He saved \$300,000 to "stallion buyers" in 1912. That's Iams, the "square deal horseman." He is the largest individual importer and breeder of Percherons and Belgians in America. He sold 120 horses in 1912, and saved \$1,000 each to his customers, and sold them a "peaches and cream" stallion that makes them \$1,000 in service fees. "Ikey boys," this is the "gold mine" year for you to buy and breed horses. First-class horses are high and scarce, and will be high for ten years yet. Take that money out of your old "tobacco box" and buy a stallion and four mares of "Iams," the "king horseman." "Buzz around" Iams' town of barns. They are filled to the roof with 60 imported stallions and mares, 2 to 6 years old, weight 1,700 to 2,500 pounds, 80 per cent blacks (grays \$200 less than blacks). Iams sells his "show horses" annually. He buys new and better ones each year. For 30 years Iams has been "buzzing" the heads of the "gold brick stallion salesmen" with better and larger stallions, forcing the breeder and importer with inferior stallions and mares to sell them on the "auction block." Iams guarantees to sell you better stallions at \$1,000 and \$1,400 (some higher) than are being sold to farmers' stock companies at \$5,000. If you don't find this so you get the \$500 Iams hangs up. It's not because your sweetheart is the "sweetest girl" that Iams tells you in his "ads" of money he will save you. He wants your business—that's why he advertises. He wants a \$1,000 or \$1,500 "smile" and your visit. He will make the "wheels of business go round." Iams can place \$1,500 insurance. He is an "easy man" to do business with, and his horses are so good they sell themselves. You say, "Why can Iams sell better stallions at half the price of others?" Iams buys and sells every stallion himself at his home barns. He buys stallions by "special trainload." He speaks the language, saving 20 per cent. He is not in the "stallion trust," saving you \$300. He pays no "slick salesman" \$1,000 to sell you a fourth-rate stallion. He has no two to ten partners to share his profits with. He buys for cash. He sells stallions by "hot advertising" and having the "goods" to make every statement good. Iams will save you \$1,000 or more in commissions. Iams' largest and best "Paris winners" are yet in his barns and must positively be sold. Iams' "selling clothes" fit all buyers. Write for his 1913 Million Dollar Horse Catalog and Eye-Opener.



"IAMS" AND "PINK LADY" ARE "SMASHING PRICES" ON 60 BIG, NIFTY, CLASSY "PARIS WINNERS" AND "BUSINESS STALLIONS AND MARES." DON'T WAIT—BARGAINS TODAY. IAMS STIRS UP THE ANIMALS.

COME TO MISSOURI TO BUY JERSEYS

Over 300 Head of Imported and American Bred Registered Jersey Cattle

To be sold at public auction during the months of APRIL, MAY and JUNE. These are representatives of the very best Island and American breeding, and offered by the most reliable Jersey breeders of the Middle West. These sales include sons and daughters of such noted sires as NOBLE OF OAKLANDS, VIOLA'S GOLDEN JOLLY, GOLDEN MAID'S PRINCE, DERRY'S GOLDEN LAD, TRIAL 2nd OF OAKLANDS, EMINENT'S RALEIGH, RALEIGH'S EMINENT LAD, THE OWL'S RALEIGH, THEDA'S INTERESTED DUKE, DERRY'S OXFORD LAD, SILVERINE'S LAD, COOMASSIE SILVERINE, GOLDEN SILVERINE, LORETTA D.'S CHAMPION, SIR PAUL, EMANON'S SENATOR, SULTANA'S EMINENT COLDEN FERN, EMINENT ROSETTE, GUENON'S GOLDEN LAD, and several others.

THREE HUNDRED FEMALES, including Register of Merit Cows, and sons and daughters of Register of Merit Cows—besides a great number of choice young cows and heifers that are making good milk and butter records in the dairy—many of these cows and heifers milking from 30 to 50 pounds of rich milk daily with ordinary farm care.

TWENTY-FIVE choice young bulls and bull calves of the very best and most fashionable breeding, with quality to suit the most discriminating buyer. Several from dams with yearly records from 400 to 600 pounds butter in one year; and many of these young bulls good enough to win in the show ring.

Three Great Show and Breeding Bulls: Possibly three of the best Jersey Bulls that will be sold in the auction ring for many years to come, as follows:

BRIGHTON LAD 89559, Imported. One of the handsomest bulls in America, good enough to win in any show ring. He is a great sire, about 90 per cent of his progeny being heifers. **SIRE, Brighton, P. S. 4043, H. C.,** half brother to Bright Prince, P. S. 4129, one of the greatest sires the Island of Jersey ever produced. **DAM, Meadow Grass 2d, P. S. 13817, H. C.,** first prize cow at Toronto Fair, 1911 and 1912, and considered the greatest cow in Canada. She gave 48 pounds milk per day at Toronto Fair. Her sire, **Monster, P. S. 3762, H. C.,** by the same sire as Viola's Golden Jolly, sold for \$13,000.

NOBLE REMINDER 80253. A prize winning son of Noble of Oaklands, and considered by many the best son of "Noble" in America. **SIRE, Noble of Oaklands, P. S. 3909, H. C.,** sold for \$15,000. **DAM, Golden Jolly's Reminder 213918, Imp.,** sold at auction for \$725 and considered by many to be the best daughter of Golden Jolly, P. S. 2921, H. C., the sire of Viola's Golden Jolly. The second dam, **Reminder's Gem, P. S. 8896, H. C.,** by Reminder, P. S. 2052, C., the sire of Financial Queen 155098, Imp., the dam of Financial Countess 155100, that made 935 pounds 10 ounces butter in one year.

RALEIGH'S EMINENT LAD 77259. A prize winning son of EMINENT'S RALEIGH 69011, sire of 21 tested daughters with large records. **DAM, Eminent's Jewel, P. S. 10538, H. C.,** a most worthy daughter of Eminent 2d, P. S. 2532, H. C., sold at auction for \$10,000, and sire of 81 tested daughters. Here is a great breeding bull and worthy to head the best herd in the land.

If you want foundation stock or Jerseys that will enhance the value of your present herd, or cows that yield a large amount of rich milk as soon as you get them home, or promising heifers that are money makers, come and buy at these sales. We especially solicit the patronage of all western buyers wanting carload lots. We have them and the quality is good, in fact this is possibly the best opportunity to secure good Jerseys you will have this season.

Saturday, April 12

At Hannibal, Mo.,
D. T. McCARTY Sells

SEVENTY-FIVE HEAD IMPORTED AND HOME-BRED JERSEYS

Including the great show and breeding Brighton Lad 89557, son of Brighton, P. S. 4043, H. C. Dam, Meadow Grass 2d, P. S. 13871, H. C., winner at Toronto, 1911 and 1912, and considered the greatest cow in Canada. An especial attraction in this sale will be the "baby" heifer calves by Brighton Lad. They are very attractive, with wonder udders and teats.

We have the best lot of heavy milking cows ever led into the auction ring. Several of them will be fresh by sale day or heavy in calf. They are by such noted sires as Golden Maid's Prince, Derry Golden Jolly, Lord Draconis, The Owl's Raleigh, Golden Champion, Trial 2d of Oaklands, Eminent Rosette, Guenon's Golden Lad, Silverine Lad, Melia Ann's King, and others.

Sale includes several high-class young bulls ready for service, and some good bull calves from my best cows. Every animal over six months tested for tuberculosis and Certificates furnished.

Monday, May 5th

At Humphreys, Mo.,
M. A. SULLIVAN and others sell

EIGHTY HEAD OF REGISTERED JERSEYS

Not a combination sale, but an absolute dispersal of three small herds. Mr. E. F. Peterson, Reger, Mo., and Mr. Noya Mundell, Browning, Mo., will consign about 40 head.

This is a great lot of heavy milking cows and heifers. They have been carefully selected and are the paying kind.

The blood lines represented are Coomassie, Golden Lad, Tormentor, Combination and St. Lamberts.

Sale includes a young bull sired by Viola's Golden Jolly, out of Sailor's Pride 240737, Imp., she by Oakland's Sailor, P. S. 3859, H. C.

Also the splendid breeding bull, Emanon's Senator 73605. Sire, Emanon 52299, prize-winning son of Golden Fern's Lad, P. 2160, H. C. Dam, Fusilier's Lady Senator 169134, Imp.

If you want heavy milking Jerseys don't overlook this sale. We have them. All tuberculin tested.

Wednesday, May 7

At Clayton, Mo.,

A Suburb of St. Louis, Mo.

R. F. TESSON Sells

EIGHTY HEAD OF REGISTERED JERSEYS

Herd headed by Raleigh's Eminent Lad 77259. Son of Eminent's Raleigh, who has 21 tested daughters with large butter records. Dam, Eminent's Jewel, one of the best daughters of Eminent 2d, sold for \$10,000.

There are a number of choice young bulls and heifers in the sale by this wonderful sire—several of them out Register of Merit cows.

This herd has been run on a profitable basis, and contains more Register of Merit cows than any herd in Missouri.

If you want foundation stock or cattle that will add to your herd, don't overlook this sale.

Remember the date and don't fail to write for catalogue.

Wednesday, June 11

At Shady Side Farm, New Cambria, Mo.,

H. J. MORRIS Sells

FORTY HEAD OF IMPORTED AND HOME-BRED JERSEYS

Including the noted sire, Noble Reminder 80253. Considered by many the best son of Noble of Oaklands. His dam, Golden Jolly's Reminder, the best daughter of Golden Jolly, the sire of Viola's Golden Jolly. Here is an opportunity seldom offered to buy a high class sire at your own price.

Among the females in the sale are sons and daughters of Noble Reminder, Matilda's Noble, Warder's Merivale, Lilac's Owl, etc.

This is a small sale of very select cattle. If you want to buy high class show and dairy animals. Don't fail to come to this sale.

Several young bulls ready for service and good enough to win in any show ring.

Every animal over six months old will be tested before sale day and Health Certificates furnished. Entry and Transfer Certificates will be given upon payment of animals.

I am pleased to announce to the readers of KANSAS FARMER that I have the management of the above sales, and catalogs are now in preparation and will be mailed on request. Don't fail to attend these sales. Write me for full particulars. I am at your service.

B. C. Settles, Sales Manager, Palmyra, Mo.

W. J. CODY, Fieldman.

KANSAS STATE UNIVERSITY LIBRARY

FRANK IAMS' DRAFT STALLIONS AND MARES

are "up to the minute." They are the "drafty, big-boned type"—"nifty, big black boys"—the real "medal winners"—sensational "show and business horses" of note, "ripe peaches." Big, classy "peaches and cream" black boys. The "Iams brand" of "top notchers." Iams' importation of Percheron and Belgian stallions and mares are in the "pink of condition" and ready for a "good selling." "Ikey boy," smile sweetly, and hundreds of Iams' satisfied customers "will sit up and take notice" that Iams, the "king pin" horse importer, is still "doing business" at the "old stand." Iams is "pushing" his horses to the front. The big "peaches and cream" "boys and girls" are attractions that can't be overlooked. Iams mesmerizes buyers with "real drafters" at "bargain prices" and having the "horses as advertised." Iams' "competitors" and "hammer knockers" are "boosting Iams" by their "knocks," until now he is known as the "millionaire horseman," and on "Easy Street," and growing fast. Ikey, buzz around" and sing Iams' song. He is selling these "aristocratic," fancy "black boys" cheaper than ever—or better horses for less money—\$1,000 and \$1,400 (few little higher.) Iams has

60 PERCHERON AND BELGIAN STALLIONS AND MARES 60

"They are "models"—"drafters." They are 2 to 5 years old, weigh 1,700 to 2,500 pounds, 80 per cent blacks, 50 per cent. ton horses. All "registered," "approved and inspected by governments of France and U. S. and certificates "stamped O. K." Iams gives a certificate of "soundness and health" with each horse—signed and sworn to by a "Nebr. state V.S." Many Paris "prize winners" and "gold medal horses." Big, drafty "topnotchers" with big bone, quality, style, finish and action to burn. They are "eye openers"—larger and better horses than seen elsewhere. Big "business propositions" that make "the wheels work fast" under a "buyer's hat." "Georgie, dear," Iams made a "big killing" by buying his horses in Europe. "War scare," "bad crops," "close money" and "Iams' cash" caused the "prize winners" and "tops" to be thrown on the market for a "good selling."—Iams cut the melon" and bought the "rippers" at "knock-out prices." Iams will give his customers the benefit of his "good buy." "Ikey boy," "come on along"—see Iams—"Everybody is Doing it."

Get into Iams' "get rich wagon" and save \$1,000 on a "top stallion"

(and you wear the diamonds.) Iams is a "big fly in the jelly" in the horse world. "He keeps the gang guessing." Iams sells "imported horses only." They win 90 per cent. of prizes at big horse shows). No "American-bred full-bloods"—no "auction stuff" or "peddler's horses"—only "choice drafters" of big size, bone, quality and finish. Iams has the "crack stallions and mares" you "read about." Buy horses of Iams and you won't "get stung" in horse or price. "Dolly D," waltz me around once again, "Ikey," land me at Iams' box office and Importing barns. Full to "the roof" with "black boys" (and all must be sold). Reduced prices. All the world knows Iams and his "peaches and cream" horses. 1913 promises to be a bumper year to Iams and his customers. He saved \$300,000 to stallion buyers in 1912. Watch "Iams' smoke." Iams' 31 years of successful business make him a safe man to do business with. Iams sells horses "on honor." A boy or a lady can buy as cheap as a man. Iams' 1913 horse

Catalog is an "eye opener." It has a "laugh" and a \$1,000 bargain in every line. A "bunch of gold" to stallion and mare buyers. It is full of real "peaches and cream" stallions. It is the finest, most elaborate and original up-to-date horse book in the world. Iams, the "square deal" horseman, makes every statement in ad or catalog good—or you get the \$500 he hangs up. Iams guarantees to sell you a better

IMPORTED STALLION AT \$1,000 AND \$1,400

(few higher) than are sold to stock companies for \$4,000. Imported mares, \$700 and \$1,000. Iams gives 60 per cent breeding guarantee; pays freight on horse and fare of one buyer. He can furnish \$1,500 insurance. Iams buys and sells every stallion himself. Saves buyers \$1,000 in middlemen's profits. He buys stallions by "train load." He speaks languages—(saving 20 per cent). He is not in the "stallion trust." No partners to share profits. He "pays cash" for his horses—and sells "top notchers" by "hot advertising" and having "the goods." "Big Ikey," leave your "happy" home and buy a "top" stallion or pair of imported mares (of Iams) that bring colts that sell at \$500 each. "Papa," don't let those "auction men" "hand you a lemon" in one of those "so-called" "American full bloods" of questionable breeding. Buy an imported horse of Iams, the "reliable horseman." (Then we will "all wear diamonds.") Iams' "selling clothes" fit all buyers. Write for Iams' million-dollar horse catalog. Iams won't let you go without a peaches and cream stallion or mare. "He sells the tails off them." Iams' guarantees are backed by "half million dollars." References—1st Nat'l and Omaha Nat'l. Banks, Omaha; Packers Nat'l. Bank, So. Omaha; Citizens State, 1st State and St. Paul State Banks, St. Paul, Neb. Iams buys big ad space because it is cheaper than flannel-mouthed horse salesmen.

ST. PAUL, NEBRASKA

IMPORTED DRAFT HORSES



I have now for sale a lot of personally selected coming 2 and 4-year-olds as good as France and Belgium can produce. Good heavy bone. Straight draft type with quality and the best of breeding. I give a gilt-edge guarantee, good for two years, with each horse sold. All in just good breeding condition and will be a good investment to the purchaser. I can save you some money on a stallion. Barns four blocks from the A. T. & S. F. depot.

W. H. RICHARDS, - - EMPORIA, KANSAS

STALLIONS AND MARES AT BARGAIN PRICES

Forty Percheron Stallions, 2 to 4 years old; several a ton or over.
Fifteen Belgian Stallions, the good kind.
Thirty Percheron Mares, 22 showing heavy with foal.
Ten Shere Mares and Stallions.
Ten head of good Jacks.
If you want a Stallion, Mare or Jack, come and get a bargain. I mean business.

L. R. WILEY, EMPORIA, KANSAS

LAMER'S PERCHERONS

A CHOICE LOT OF STALLIONS AND MARES TO SELECT FROM.

Owing to this time of season, we are quoting prices that will certainly interest you.

INQUIRE ABOUT THEM.

C. W. LAMER & COMPANY, SALINA, KAN.

MENTION KANSAS FARMER WHEN YOU WRITE.



ROBISON'S PERCHERONS

One hundred fifty percheron stallions, mares and colts. Fifty imported. All for sale.

J. C. Robison, Towanda, Ks.

Holsteins Ninety Head From Which to Make a Choice

GANZDALE HERD.

WE ARE OFFERING ANYTHING IN OUR HERD FOR SALE.

Pure-bred registered Holsteins, nothing else. We are breeders, not jobbers, and do not keep grade stuff. We offer anything in our herd, from one to a carload. We can give you young bulls, some old enough for light service, that combine the blood of several world's champions, and at prices extraordinarily low. If you want blood from the best and at grade prices, come and see us, write, or telephone. We answer promptly every inquiry. We want to sell.

CASPER A. GANTZ, Prop. - King City, Missouri



Sunflower Herd Holstein-Friesians

An A. R. O. herd, where records are made, and since December, 1912, am placing all A. R. O. cows in semi-official yearly test. Inka Hilliard DeKol 76076 has produced from December 1 to March 1 over 6,700 pounds milk and over 200 pounds butter fat and still milking above 70 pounds a day. Cows in this herd have A. R. O. records as high as 18 pounds butter seven days at under two years to 25 pounds at full age. Young bulls and service bulls from this herd will add materially to the value of your present herds.

Several nice, straight, registered cows for sale that are due to calve soon. Tiranla Lady Aouda 5th King 61250 and Sir Pontiac Artis De Kol 77152 head this herd, a combination hard to beat.

F. J. SEARLE, Prop. Oskaloosa, Kans.