

KANSAS FARMER

For the improvement  of the Farm and Home

Volume 51, Number 26.

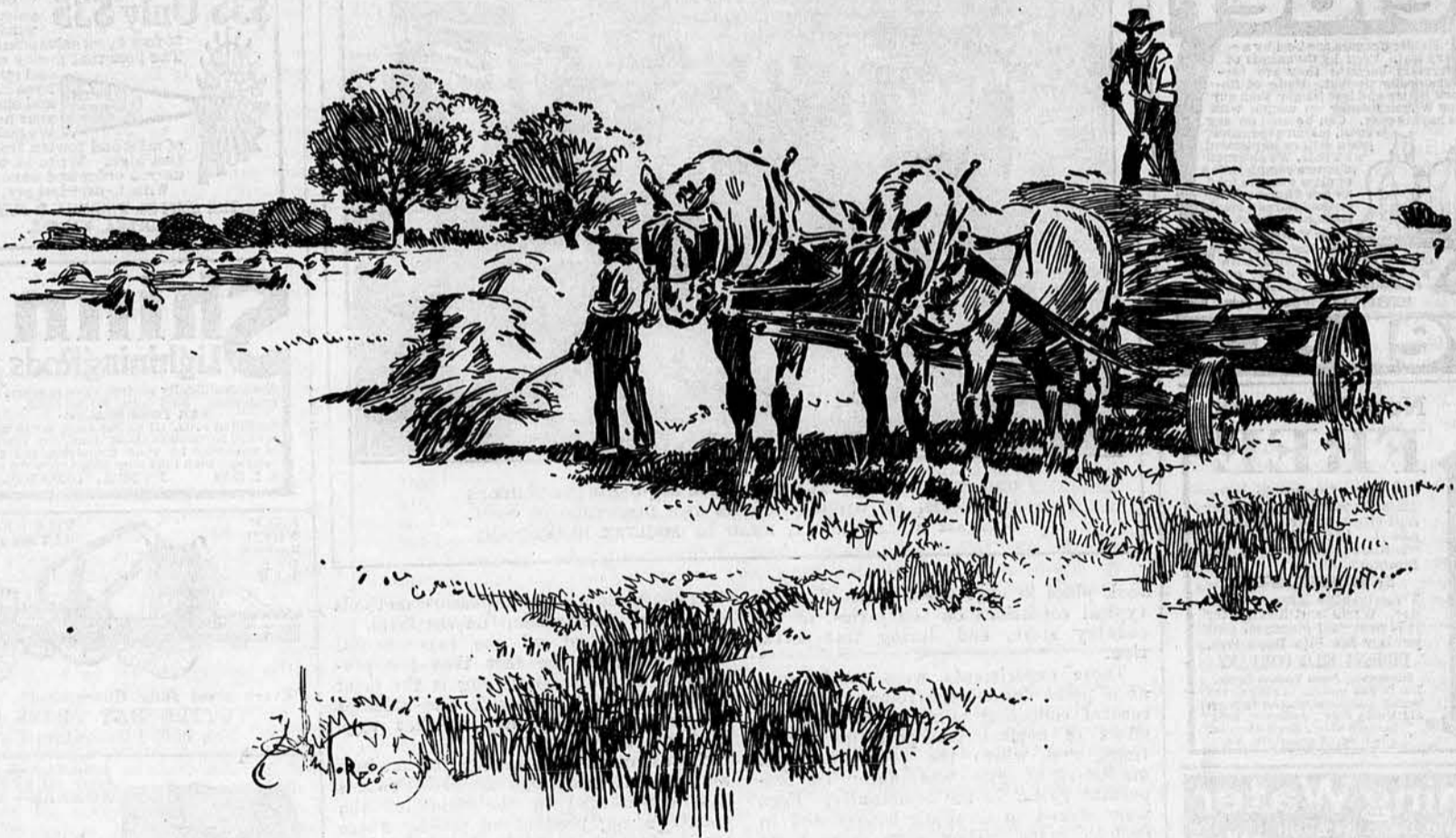
TOPEKA, KANSAS, JUNE 28, 1913.

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Care of the Egg on the Farm

"CASE-COUNT" buying of eggs is fundamentally wrong. The greater portion of the eggs purchased by small dealers are handled in this manner. Perhaps our farmers are not as careless in this respect as it may appear. If some incentive to produce and market better eggs was offered, we might find the farmer as keen to increase his profits as any other good business man. Here is how a system of grading eggs worked out in one small town, as reported by Prof. W. A. Lippincott, poultryman at the Manhattan Experiment Station:

"On the first of last June a man who was paying 14 cents for eggs, case count, changed to a quality basis, and began paying 15 1/2 cents for first-class eggs and 13 1/2 cents for second-class eggs. The result was that inside of two weeks the average quality of the eggs he was buying had increased perceptibly, and he was paying 15 1/2 cents as an average price for eggs. The farmers were better satisfied, because they got a higher price for their product. The dealer was better satisfied because he was getting a better quality of eggs. They cost him more money, but he was able to demand a better price for them."

The Agricultural Department at Washington in this report on the handling of eggs boldly charges the farmer with being solely responsible for the greater proportion of this waste of millions of dollars which occurs. **KANSAS FARMER** would like to hear from its readers. Let us have your views on the subject.

Every year there is a loss of millions of dollars in bad eggs, the direct result of haphazard methods of production, marketing, and shipping which are now in vogue in many states. The greatest part of this loss is due mainly to ignorance or indifference on the part of the farmer and producer, and only a small part is caused by carelessness on the part of the buyer and shipper. A considerable portion of this loss falls upon the producer since every producer of eggs must receive a lower price for his product due to the cost of sorting and disposing of the bad eggs by the dealer and shipper.

With a view to determining the cause of the great loss in eggs, the United States Department of Agriculture undertook a thorough investigation of the problem, and in its latest publication on the subject (Bulletin 160, Bureau of Animal Industry) are presented the results of experiments conducted in Kansas to determine what deterioration

Some of the loss due to "rots" and "spots" is caused by contamination in the nests and is largely, if not entirely, preventable.

Among the results of the test it was found that:

Eggs kept in the cyclone cave proved much better in quality than those kept under other conditions;

Taking the season as a whole, an unheated room in a dwelling is not conducive to good quality in eggs;

During the hot summer months the conditions surrounding the weed nest, the nest in the straw stack, or under the corn crib, and the stolen nest, as well as the keeping of eggs in the house, favor the production of spots, blood rings and rots;

Infertile eggs, regardless of where they may be kept, are much more resistant to deterioration than fertile;

Two-thirds of the total loss in fertile and infertile eggs takes place on the farm. The basic factors responsible for



ONE OF THE AGRICULTURAL COLLEGE EGG-CANDLING SCHOOLS CONDUCTED AT WICHITA UNDER THE DIRECTION OF PROF. WILLIAM A. LIPPINCOTT, HEAD OF POULTRY DEPARTMENT.

took place in eggs when retained under typical conditions on the farms, in the country store, and during transportation.

These experiments were carried out at a point far enough removed from a central collecting point to observe the effect of typical transportation conditions, and where the production and marketing of eggs was quite an important factor in the community. Eggs were stored in dwelling houses and in cyclone caves. They were from nests especially provided for laying hens, from under sitting hens, under corn cribs and from the weeds, underbrush and other places where hens are prone to steal their nests.

The tests emphasized the fact that infertile eggs keep better than fertile. One-third of the annual loss in eggs is due to "blood rings." A blood ring is caused by the development and subsequent death of the embryo of a fertile egg subjected to heat. No embryo can develop in an infertile egg, no matter how long it may be subjected to heat. Unless cooled at once and kept cool, a fertile egg will spoil in hot weather almost as quickly as raw milk.

this condition are the haphazard methods of poultry management on the farm.

The result of all the experimental work point to the fact that the production of the infertile egg is the most important single factor in the attempt to produce high-quality market eggs during hot weather.

To assure a high quality of product and prevent in a large measure the loss now experienced in the value of the country's egg production, producers are urged to observe the following five simple rules:

- (1) Kill or sell all mature male birds as soon as the hatching season closes.
- (2) Give the hens clean nests.
- (3) Gather eggs at least once daily.
- (4) Keep eggs in a cool, dry place.
- (5) Market eggs at least twice a week.

The Kansas Industrialist suggests the construction of a cement hog wallow to keep hogs comfortable during the hot summer weather. Up-to-date bath tub equipment for the humble hog may seem rather expensive, but with hogs worth \$15 or \$20 a piece one or two saved from death would pay the bill.

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KANSAS FARMER

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

Published weekly at 625 Jackson St., Topeka, Kan., by THE KANSAS FARMER COMPANY. ALBERT T. REID, President. JOHN R. MULVANE, Treasurer. S. H. FITCHER, Secretary.

T. A. BORMAN, Editor in Chief; I. D. GRAHAM, Live Stock Editor.

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C. O. D. PARCEL POST.

After six months of parcel post, we are now to have the benefit of a C. O. D. feature. One of the claims made for the parcel post was that it would furnish an efficient means for placing the produce of the farm, such as butter, eggs, poultry, etc., more directly into the hands of the consumer. The government in furnishing this C. O. D. service is making it possible to even more conveniently accomplish this purpose. The new feature goes into effect July 1.

According to Order No. 6888, amendment to the original parcel post regulation, a package may be sent anywhere in the country, the amount due from the purchaser collected and remitted by the postoffice department. The sender of the package on which the postage is fully prepaid may have the price of the article and the charges collected from the addressee on payment of a fee of 10 cents in parcel post stamps, provided the amount to be collected does not exceed \$100. The parcel will be insured against loss without additional charge if the amount does not exceed \$50. Complete instructions for the installation of this new service have been received by the postmasters. The following have been gleaned from the list of instructions as being of most importance to those wishing to take advantage of the C. O. D. feature of our parcel law:

1. A distinctive tag, Form 3816, shall be attached to each C. O. D. parcel. This form consists of three parts, or coupons. The first coupon shall be detached and handed to the sender as his receipt; the second coupon shall be detached and filed as a record at the mailing office, and the third shall be attached to the parcel. Each of the three parts or coupons shall be postmarked at the mailing office.

2. The sender of a C. O. D. parcel shall fill in as many of the items on the C. O. D. tag as possible, including the item showing the amount due him, and shall place his name and address on the back. He shall also place his name and address on the back of the coupon retained at the mailing office.

3. C. O. D. parcels may be accepted for mailing by rural carriers, and the receipt to be given the sender shall be sent him after the parcels are numbered at the postoffice.

4. C. O. D. parcels will be delivered by city and rural carriers and special delivery messengers under the rules and regulations governing the delivery of registered mail.

SEED WHEAT.

Because of frequent attempts to sell seed grain under new and fancy names at high prices, the agronomy department of the Kansas Agricultural College has found it necessary to issue a word of warning. This warning comes as a result of inquiries concerning the quality and worth of seed wheat said to be pure-bred, approved by the college and offered for sale at an exorbitant price.

E. G. Schafer, instructor in crops of the college, writes KANSAS FARMER that while the college offers to inspect fields of wheat for men who are offering seed for sale and approves of wheat which is desirable for seed, it wants to issue a warning against the purchase of seed that has been misrepresented. An exorbitant price should not be paid for seed wheat which has no greater merit than that which may be obtained in almost every locality.

The Agricultural College has arranged to inspect wheat while it is standing in the field for anyone who may request it. A list for general distribution is to be made of farmers having pure seed wheat for sale. The agronomy department offers a limited quantity of pure seed wheat for sale each year, but the demand is greater than the supply. The plan of inspection was started so that the seed wheat obtained by farmers from the college might find further distribution.

The hard winter wheats sold under the names of Turkey and Kharkof by the college have proved to be superior in yield and quality to scores of other

varieties obtained from many sources. Much of this wheat may be obtained from farmers who secured their original seed from the college. The above mentioned list may be obtained from the department of agronomy. We strongly recommend that farmers purchase seed wheat only from sources known to be reliable.

FARMING AND CAPITAL.

It has been for years pretty well understood that farming requires more capital than has been available to most farmers. It has been well known, too, that the farmer who had the necessary capital upon which to operate, was the man who was able to realize more money from a quarter section as compared with the man on the same number of acres, the same kind of land, but farming with less equipment and less capital.

The first figures showing the relation of capital to profits are those

ment, Mr. Palmer of the North Dakota Agricultural College, says that having nearly all the capital in land and buildings is a good deal like the merchant who has a big store but scarcely any goods on the shelves. It is better to have a smaller store with well stocked shelves. Likewise it is better to have a smaller farm provided it is supplied with the stock, machinery, and cash necessary to make the best use of the land.

VICTIMS OF A CELEBRATION.

For years it has been necessary to number in hundreds the dead and injured who are victims of the nation's birthday. Many of these are children and a large number of the little ones injured will bear the marks for years, or will go through life crippled. Much valuable property is also destroyed by fireworks.

It is incomprehensible that parents

Do You Want Men? Do You Want Work?

KANSAS FARMER has decided to make its Free Employment Bureau a permanent department of this paper. This department was created three weeks ago for the purpose of securing harvest hands for the farmers, and work for men who wanted to harvest. Hundreds of applications have been received, and to date every one answered. Every man who applied for work in the harvest fields was sent direct to some one of the many farmers in Kansas who took advantage of our offer to send them harvest hands. The department is finding more to do every day and it is expected that the period of greatest demand for men will occur about June 28. Wheat harvesting will be on in real earnest all over the state at that time, excepting in some few localities where the wheat ripened earlier than usual. The help situation changes so rapidly at this stage that only late, definite information should be considered. We will continue the work of supplying harvest hands to any farmer who will write us his needs, and we will advise any men who want work where they can find it. If you want men, state when your harvest will begin and how many men you want. If you want to work, send your name and address to KANSAS FARMER.

Harvest generally seems to be from a week to two weeks earlier than usual. A great many men are just arriving in Topeka from the central and eastern states, expecting to begin harvest about the first week in July. It is anticipated that larger numbers will be here next week, and by letting their needs be known every farmer can be supplied. The class of men who have applied to KANSAS FARMER seem to be of an unusually vigorous and well-to-do type. Most of them have made a business of coming to Kansas to harvest. Only three out of the entire number said they were unable to pay car fare 200 miles. The others simply wanted to know definitely where to go and when they could expect to begin. On receiving this information they at once started for the place to which they had been directed.

More complete announcement of the plans of KANSAS FARMER's Free Employment Bureau will be announced later. It is planned to include all kinds of help for farmers and stockmen, and will include female help also, so that the farmers' wives may know where to write for help in the kitchen and around the house.

No charge whatsoever will be made to any one, under any circumstances, for the service, unless you want information by telegraph or telephone, in which case you will pay the charges. Address KANSAS FARMER, T. A. Borman, Editor, Topeka, Kansas.

which come from an investigation made by the Wisconsin Experiment Station. In this investigation it was found that when the operating capital—that is, the machinery, live stock and cash—was 13½ per cent of the total investment, the profits were \$167.78 per farm; increasing the operating capital to 17.7 per cent raised the profits to \$433.68; when the capital was raised to 28.8 per cent the profits were \$1,628.55; and when the operating capital was 33.3 per cent the profits went to \$3,511.33. Be it understood that in the above figures operating capital is regarded as machinery, cattle, horses, hogs, chickens and cash.

These figures are the averages of many farms and indicate accurately that there is a close relation between operating capital and profits, the largest profits coming when one-third was in stock, machinery and cash and but two-thirds of it in land and buildings. When nearly all the capital was in land and buildings the profits were smaller, and, to use the familiar expression, such farmers were "land poor."

Commenting on the Wisconsin experi-

who do not permit their children to expose themselves to firearms or explosives all the year, will, on one day, let down the bars and encourage the children to handle and play with explosives that cannot be anything but dangerous.

In May the state fire marshal sent a model ordinance for a sane Fourth of July to all the cities of Kansas, asking the city commissioners or city councilmen to pass it in the interest of the welfare of the citizens of the state. A number of cities have passed the ordinance and several have replied that they had similar ordinances which they would strictly enforce this year for the preservation of life and property.

He is now making a direct appeal to our citizens, asking that each one take an interest in making the Fourth as safe as any other day—that all citizens do their part toward discouraging the use of fireworks.

Can we not, in the celebration of our nation's birthday next week, establish a new record for Kansas; a record of "no one killed" and "no one injured" by fireworks throughout our broad state?

CARING FOR ALFALFA.

We hope that KANSAS FARMER readers will look up recent issues of KANSAS FARMER and re-read what we have had to say relative to the cutting and curing of alfalfa hay. A brief resume of such articles might be as follows: Begin cutting as soon as the first blooms appear. If the weather is likely to be unsettled at about blooming time, it will be well to begin cutting even though no blooms have appeared. The idea is to take advantage of favorable weather conditions to get the crop off the ground and in the stack without rain. The most trouble from rain is experienced with the first crop. If the alfalfa is allowed to come into full bloom before it is cut, it will not be as good feed as if cut earlier and to wait until the crop blooms in a period of unsettled weather, may result in its being impossible to get on to the field to cut the crop, and the succeeding crop on account of delay will be decreased thereby. On the other hand the crop may be cut, the rains come and the alfalfa lie on the ground waiting for drying weather and the next crop so decreased. In other words, when the alfalfa is about ready to cut, seize the first opportunity of fair weather to put the crop away.

The other point is that of properly curing the hay, making a distinction between curing and drying. The cut alfalfa left exposed in the mower swath under the hot sun and becoming thoroughly dried before stacking, does not make the best hay. Leave it in the swath until it becomes partially dried, rake into the wind-row and cure there. It will be better, of course, to cure in cocks, but conditions with reference to weather, time and haying force may not permit this. Cured hay has a feeding value in excess of dried hay.

We are wondering how the parcels post is working in your neighborhood, particularly with reference to its supplying you with a market direct from the farm to the consumer, for butter, eggs, poultry, etc. You will recall that this was one of the important claims made in support of the parcels post when the question was being argued in congress. Understand, we are not opposed to parcels post but we are wondering if it has made good on this claim. We do not know of a single resident in the city of Topeka who is receiving any considerable part of the farm products he uses in this way. We would like to know if the farmer is not interested in forwarding the products of the farm in this manner, or if he is, whether the consumer has found that the receipt of supplies by parcels post has failed to work an economy. The parcels post is convenient and will fill the need in the quick transportation of merchandise from the town to the farm, but it is our candid opinion that the arguments of those who urged it upon the ground that the farmer would avail himself of it in the marketing of his products, was largely buncombe.

The boys and girls of Kansas are to have more complete supervision and encouragement in their agricultural, sewing and cooking clubs and prize contests. This is to be brought about by a franking privilege obtained by the United States Department of Agriculture for the use of C. D. Steiner, who has charge of this work at the Kansas Agricultural College. He will now be able to send, by mail, all the necessary information and encouragement need by each local organization. This will also mean a saving of several hundred dollars for Mr. Steiner's use for traveling expenses which will mean more personal touch with his work in encouraging the young people of Kansas in agricultural and economic pursuits.

The co-operative idea in Kansas should get quite a boost as a result of the national meeting of Farmers' Co-operative and Educational Union to be held in Salina the first week in September.

DUAL vs. SPECIAL PURPOSE

Argument on an Old but Still Unsettled and Interesting Question

ON page 2, May 3 issue, A. S. Neale of the Kansas Agricultural College Extension Division, pours out some wisdom to cow men, of the kind that makes real cattlemen and good farmers sick. This article is headed—"Kansas Needs More Cows." Thus far, he is likely right. But when he attempts to tell farmers just the type of cow they need, his ignorance of real facts is too apparent.

He condemns the dual-purpose cow and if his advice is accepted by Kansas farmers he will cost that state untold thousands of dollars in loss. The small or average farmer needs this type of cow and no other kind answers his purpose near so well. The cow that will give four to six gallons of milk daily and hold to it for eight or nine months and produce a calf of fine beef type, is just the cow for Kansas or New York. And this is the cow that is most popular in England today—the cattle kingdom of the world.

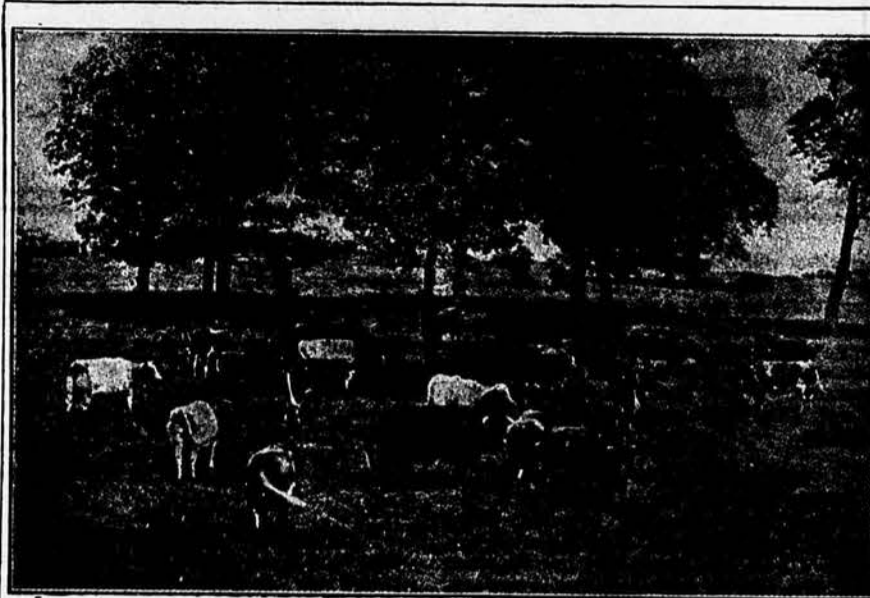
The dual-purpose cow has the field and she will still have it when Mr. Neale sings his last song condemning her. Here is the fault of Mr. Neale and others of his thought. He assumes that the beef-making power and the milk-making power are antagonistic. This old, worn theory is the worst mistake I know in cattle breeding. And it has done more harm to real improvement in cattle than any false theory I know. The fact is no two qualities in cattle are more congenial than the fine beef tendency and the high milk tendency combined. This trait is especially characteristic of the high class Shorthorn and can Mr. Neale deny this was the prominent feature in the original stock of the breed in the days of Collings, Barclay and Bates?

Late breeders have gone wild for show ring honors and milk was ignored and if a show beast gave milk tendency it was destroyed as much as possible. It is well known among up-to-date cattlemen that the vast western ranges and red hair did the great harm for the milking Shorthorn. Breeders catered to the range demand—it was the best demand we had in its time. They did not want milk and would not have roan or white hair at all.

Yes, Kansas needs more cows—but the kind that will produce a \$75 yearling steer and \$50 in milk and butter. Her name is shorthorn, bred right. That beats the raw bone, hat rack kind that gives \$50 in milk and butter and instead of the fine \$75 beef, the skinny, measly, dairy kind worth \$10. Kansas is calling loud for the dual-purpose kind and she just exactly fits that alfalfa patch.—W. P. HARNED, Vermont, Mo.

Mr. Harned takes a narrow view of the cattle business of America when he assumes that the dual-purpose Shorthorn is the universal cow for the American farm. One of the settled principles of breeding is that no single breed or class of animals is best suited to all conditions and locations. The adaptability of the breed to the climate, class of feed available, the purpose for which produced, and natural liking of the man who is to handle it must all be considered. Consequently when Mr. Harned says that the cow for all conditions is the Shorthorn he is laying down an impossible task for this cow, excellent though she is in her place, as well as making a statement that he cannot back up with facts and figures.

I have no wish to detract from the excellence of the Shorthorn cattle. I was brought up on a farm where their breeding was an important industry, and when I first began farm operations for myself, nearly twenty years ago, it was with these cattle. I loved the Shorthorn in those days and had very much the same idea of her that Mr. Harned has now. In fact I still have an affection for the red, white and roans that I do not have for any other beef breed, due in part perhaps, to these early associations. However I was forced to give up these cows. My business developed along dairy lines, and I found it impossible for them to compete with the specially bred dairy cows. I found, just as we had found on my father's farm, and every man who has given the proposition a fair trial has found, that heavy milkers were too rare, that the general average of the



A GROUP OF THE EVER-POPULAR SHORTHORNS AT THEIR FAVORITE OCCUPATION OF TURNING GRASS INTO BEEF.

herd was always low, and that for dairy purposes the dairy bred cows were so far ahead of them that there was no comparison.

IMPROVEMENT BY DEFINITE LINES.

The man who would improve his live stock must do so by breeding along definite lines. The more qualities he

desired characteristics are not correlated, the probability of getting an animal carrying these desired characteristics is very much lessened, the variation correspondingly increased, and the highest development cannot be expected. NO COMPETITION IN DAIRY PRODUCTION. This is just the condition when we try

ON May 3, KANSAS FARMER printed an article by A. S. Neale, in which he urged upon the farmers of Kansas the need or more well-bred beef cattle and more well-bred dairy cattle. He would have the farmer desiring beef cattle rear the best types of his chosen breed. He would have the dairy farmer milk and rear the best and largest possible producers of dairy products.

To this article, W. P. Harned, Vermont, Mo., replied and his statement appears in this article. Mr. Harned is one of Missouri's pioneer Shorthorn breeders.

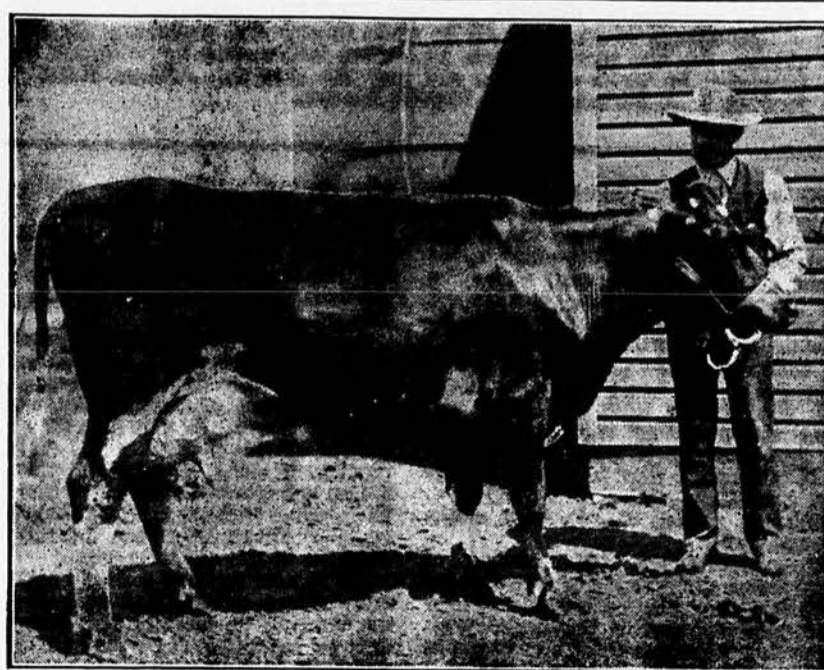
We submitted Mr. Harned's letter to Mr. Neale of the Extension Division of the Kansas Agricultural College, for an answer. Mr. Neale is a dairyman—a real dairyman. He has, until recently, owned and successfully handled a splendid herd of registered Holsteins.

It is plain, therefore, that neither Mr. Harned nor Mr. Neale are theorists. They, in fact, write of their own experiences and convictions.

KANSAS FARMER'S opinion as to the relative merits of the dual-purpose and special-purpose dairy cattle and the place each should occupy on our Kansas farms, is a matter of record in these columns, but we feel that at some near future date we will take a hand in the discussion here presented.—EDITOR.

desired to improve the greater the difficulty of making the improvement as the chances of getting an animal in which all these characteristics are present is lessened and the variation increased. This is true when the characteristics are correlated, that is have a tendency to vary together. But, when

to breed for both beef and milk from the same animal. When Mr. Harned says, "No two qualities in cattle are more congenial than the fine beef tendency and the high milk tendency combined," he is flying in the face of all the established laws of breeding, and of the experience of successful breeders as



DAISY, THE DICKINSON COUNTY COW OWNED BY A. B. WILCOX, WHICH PRODUCED IN APRIL 92.17 POUNDS BUTTER FAT.—THE COW TESTING ASSOCIATION TO WHICH MR. WILCOX BELONGS "DISCOVERED" HER.

well. No man in America has succeeded in developing a herd of Shorthorns, or any other breed of cattle, that can compete with the dairy breeds for dairy production, and at the same time win show ring honors in the big shows as beef cattle. If Mr. Harned's statement was an established fact, instead of an unfounded theory, this would have been done, for breeders have been trying to do this for years. High milk production and angular or dairy type, and low production of milk and rectangular or beefy type are correlated characters, and the breeder who recognizes these facts and breeds accordingly will be the one who will have the highest degree of success. The beef producing quality is inherited just as other characteristics. The only cow that can transmit these with any degree of certainty is one that has inherited it from her ancestry and possesses it in a high degree herself. Such an individual, having the tendency to turn the maximum amount of her feed into meat, cannot also have the tendency to turn the same feed into an entirely different product, milk. Hence, Mr. Harned's theory contains two contradictory principles, and therefore is unfounded, as all experience proves. Examination of cows of this or any so-called dual-purpose breed of cattle shows that the high milk producers are angular, approaching close to the dairy type, as yield of milk is increased. DUAL-PURPOSE AND SPECIAL PURPOSE RECORDS.

The Missouri Agricultural College has in its herd some of the best dairy Shorthorns in the country. The following are the records of four of these cows for one year:

Name	Lbs. milk	Lbs. Butterfat
Lulu	12,341	514.6
Panama Lady	13,789	489.5
Rose	5,269	222.3
Columbia Lulu (two years old)	4,114	183.1

Two of these are creditable records. They are, I believe, the highest authenticated records ever made of Shorthorn cows. C. H. Eckles, Professor of Dairying of the Missouri College, says, "Our Shorthorns are of the Dairy Shorthorn type and the foundation stock came from a herd in New York State that has been bred for this purpose thirty years."

Compare these records with the following yearly records:

Name	Lbs. Milk	Lbs. Butterfat
Banostine Belle De		
Kol (Holstein)	27,404	1,058
Spottswood Daisy		
Pearl (Guern'y)	18,602	957
Jacoba Irene (Jersey)	17,253	952
Netherhall Brownie		
9th (Ayrshire)	18,110	820

A stable mate of these Shorthorn cows, Missouri Chief Josephine, produced 26,861 pounds of milk and 740 pounds butter fat in one year. Maid Henry, owned by the Kansas State Agricultural College, produced in one year at 12 years of age, 19,600 pounds of milk and 716 pounds butter fat. Thousands of official records have been made by dairy bred cows that are higher than those best Shorthorn records.

Professor Eckles, who has had experience with some of the best Dairy Shorthorns in the country, is authority for the statement that a cow of the dairy breeds can be expected to produce 50 per cent more butter fat than an equally good specimen of the dual-purpose breeds. By referring to authenticated records made by the different breeds in all parts of the country, and the testimony of dairymen everywhere, it will be seen that Professor Eckles' statement is very conservative, and favorable to the dual-purpose cow.

CALF VALUE NOT ALL PROFIT. According to Mr. Harned's statement his ideal of a good farmers' cow is one that will produce annually \$50 worth of milk and a \$75 yearling steer. This statement alone shows that his principal product is beef and not butter. Who wants to milk a cow producing \$50 worth of dairy products when the cost of feed, labor and other expenses of keeping her are \$60 to \$75 per year? With land at \$75 to \$200 per acre, and the high price of labor we must have something better.

I consider the estimate of the value (Continued on page 9.)

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FRUIT GROWER'S CHANCE

Kansas Growers Have Soil and Climate—Trees Need Proper Handling

FROM the standpoint of an outsider the Kansas-Missouri fruit growing situation is peculiar and at the same time interesting. If we were to analyze the history of fruit growing in the Kansas-Missouri district, I think we would find that from 15 to 25 years ago the farmers of Eastern Kansas and Western Missouri found that the apple was adapted to their conditions to such an extent that when given any chance at all it made good returns with little effort on the part of the planter. Many thousands of acres, of hill lands in particular, were planted to orchards at that time. Unfortunately at about that time fruit growing in the United States had a serious setback because of the introduction and dissemination of several insect pests and plant diseases. Orchards that had always borne fair and luscious fruit without any care became diseased so that it was practically impossible to secure perfect specimens of fruit. This condition was not limited to the central west district, but also prevailed to as great an extent in Michigan, New York, and other eastern sections.

We can remember as a boy the condition in Michigan 20 years ago when every farm had its five or ten acres of orchard. These orchards had for years borne marketable fruit, but with the advent of the introduced pests the orchard was either abandoned to the hogs and sheep or was removed to make place for corn, wheat or clover. Now the traveler through Michigan and Ohio sees few of these farm orchards. They have been removed. These states are producing as many apples probably as formerly, but in the specialized orchard.

INSECTS FORCED SPECIALIZATION.

This transition from apples produced on the general farm to apple growing as a specialized industry has come about solely because of these insect pests and diseases. Profitable apple growing now is an economic problem. Apples must be grown where the conditions are such that they will grow at their best with the least cost of production. That place does not exist where diseases and insect pests are not prevalent. They have come to stay, and if any man has an orchard and is not willing to study sufficiently to understand how to eliminate or control these pests, he had best pull out his trees and go into some other line of farming.

From our study of conditions we believe that, without asking any questions, we have given a fairly correct history of the conditions that have prevailed in this district for the last 15 or 20 years. Many of these orchards have been removed; many more may as well be removed, for they are past redemption. On the other hand there are many thousands of acres now in orchards that are not producing profitable returns that with a comparatively small amount of time and attention can be made to return a larger interest from that land than could be secured from any of our extensive crops.

KANSAS TREES HEALTHY AS ANY.

We will not go into a discussion in this article of apple growing in this district as compared with other districts. We will simply say that the adult trees are on the ground. They are as healthy barring one or two diseases which can be readily controlled—as trees in any fruit growing district in the United States. We are not recommending outsiders to come in and buy these lands because they are cheap, but if the condition prevailing at present continues for two or three years, most of these orchards will undoubtedly change hands, for they are at present being held at a price that will surely induce outside growers to change their location. What we want to see is the present owners of these orchards reap the benefits to which they are justly entitled.

Last year the conditions were rather discouraging, for, although the crop was good, the prices, owing to an overproduction of fruit all over the country, were such that comparatively little money was made. Orchards that are properly cared for this year in many cases will make a net return that will more than pay for the land. Some of the owners of these lands realize their value and are utilizing their resources. Others have not seemed as yet to appreciate the possibilities and will not get returns from these lands until they have learned to grow apples in accordance with modern methods.

DISEASES AND INSECTS REALLY BLESSINGS.

THIS article was dictated in KANSAS FARMER office by Mr. Bennett, horticulturist of the Rock Island Lines, immediately after his return from an investigation into the fruit growing sections of Kansas. Mr. Bennett did not say in this article that certain Kansas localities were better adapted to successful apple growing than other sections, because so to do would be to injure many other fruit-growing sections along the lines of his road. It is his business to help fruit growers in their business and not to boost fruit lands. But we had no difficulty in understanding in his opinion a tremendous success could be made of apple growing in Kansas, particularly in those sections in which apples are growing—almost as if wild—and that the apple grower need not look for high-priced irrigated lands on which to locate profitable apple orchards. The editor knows that Kansas has the apple land and the climate. Men who want to grow apples can buy this land at a comparatively low figure, and we urge orchardists who are looking for a location to investigate Kansas.—T. A. BORMAN.

These diseases and insect pests which have made the great change in fruit production in the United States in the past few years have been in many cases a blessing in disguise. They have been educators to our fruit growers and have stimulated them to action and have eliminated the slothful, careless grower, so that at the present time the man who does good work can receive the benefits of his labor.

The first thing learned was that the apple must be sprayed. This spraying is for various purposes. We have seen people who have, after reading literature in regard to apple culture, decided to spray, bought a spraying outfit and have gone forth to combat the various dis-

growth should stop for the ripening of the wood. Then sow some crop, a leguminous crop preferably, that will cover the soil during the fall and winter and not only prevent the washing of the soil but at the same time add humus and fertility to it.

In the West the system of clean cultivation has been carried entirely too far, to the very great detriment of many of the best orchards. In any bearing orchard it is frequently advisable to seed to some kind of clover and allow this crop to remain for a year or two without cultivation. If the district is one in which the conservation of moisture is essential, this may not be advisable, for an orchard will require more moisture



TOPPING BACK A MISSOURI PIPPIN THAT HAD BROKEN DOWN UNDER 1912 LOAD.—PHOTO BY GEORGE O. GREENE, HORTICULTURALIST, K. S. A. C.

eases and at the same time knew absolutely nothing of the details of their work. This kind of work is time and money thrown away. If we are spraying for the codling moth, we must know the manner of spraying and what to spray with. If we are spraying for fungus diseases, we must also know when to spray and what material to use.

EFFECTIVE SPRAYING REQUIRES PRUNING.

When we start to spray we find that in order to do good work we must have our trees properly pruned. No man can thoroughly spray a tree that has from two to four times as much wood in the top as is necessary to produce a crop of fruit. Consequently, to do good spraying, we must first do good pruning. The question is frequently asked, "When shall this pruning be done?" The only answer we can give is: Prune when the saw and pruning shears are in condition, which should be all the time. Pruning is a feature in itself which must be studied by the fruit grower if he is to do his work economically.

CULTIVATION ALSO ESSENTIAL.

After spraying and pruning, the next step in good orcharding is good cultivation. Few of our orchards are properly cultivated. There are many systems that are feasible under various conditions. No rules can be laid down that will apply in every case. Hilly land must be handled differently from level land in order to prevent soil washing and to secure the best results. Yet our hilly lands are undoubtedly our best fruit lands. In a general way the best method is to plow between the trees in spring as soon as growth starts, and cultivate until the middle of summer, or until

where a cover crop is left on the ground during the whole year than where cultivation is given during the growing season.

Some growers have the idea that it is necessary to cultivate under the trees. We believe this is one of the worst mistakes the grower can make. If we study the habit of growth of the tree we find that the roots permeate all the soil, even if the trees are 35 to 40 feet apart, as they should be. The soil under the tree, if the tree is as low-headed and as low-branched as it should be, is necessarily shaded to a great extent and cultivation there is not necessary. If weeds grow under the trees to such an extent as to make it unsightly, these may be cut with a sythe and left on the ground under the trees, but ordinary vegetation under big trees is not of sufficient consequence to be bothered with.

THINNING IN JUNE WILL PAY.

Many of our growers are now spraying; a considerable number of them are pruning their trees; probably a smaller number are cultivating their orchards properly, but we have found few of them so far who are going to the trouble of thinning their fruit. When a grower has advanced to an extent to which he will take the time in June and July to thin his apples so as to make the best fruit, he has reached that stage of development of fruit growing where he may be classed with the professional and successful fruit growers. It has been proven time and time again by experiment, and is now demonstrated by our best growers, that the grower can not only afford to thin, but that he cannot afford not to thin his fruit.

Careful experiments have demonstrated, however, what we would not have believed had we not watched the work—that the cost of thinning fruit when it is about three-fourths of an inch in diameter or immediately succeeding the so-called "June drop," is practically offset by the time saved in picking the apples in the fall. In other words, we find that it is as cheap to pick these apples in June or July as in September or October. The difference in the grade and quality produced by thinning is more than one would naturally expect. Unthinned apples that grade less than one-half firsts might have been made to grade from 90 to 95 per cent firsts by thinning, and frequently the number of boxes or barrels of fruit on the thinned trees is as great as on the unthinned trees. Last season in one of the best orchards of the North Fork country of Colorado, the writer saw Winesap and Jonathan trees from each of which 4,500 apples had been picked in early July, and which at picking time had more apples on the trees than should have been left. These thinned trees were producing from 700 to 800 boxes of fruit per acre. Thinning pays.

GRADING AND MARKETING.

The next step for our fruit growers' attention after thinning is that of better grading and marketing. We will not discuss this subject in this article, as it demands a discussion by itself. It is a thing that we must learn if we are to get the full value of our fruit. The grower who thinks he is gaining by putting second grade apples among first grade is fooling no one but himself, for the buyer will always pay for these apples on the basis of the poorest apples in the box, barrel or car.

From what study we have already made of the conditions in the central West, we believe that all this country needs to become a great and profitable fruit district is a more united effort on the part of our growers—more attention to the details of fruit growing, not as a side issue, but as the main issue on the farms that are adapted to this type of agriculture.

Not Looking for Jobs.

How many young men are there in Kansas, today, or tomorrow either, eager for jobs as farm managers? By this is meant young men ready to leave their homes and undertake the care of other men's properties. As a prime requisite these men must be educated agriculturally. They shall not be tenants—the sort that let things run down to ruin—but managers willing to take a chance for a half or two-thirds of the profits. With every such job is a comfortable home and in most instances some modern improvements. Any such young men in Kansas? Any in this big college?

Within a month, five wealthy men owning farms have written to members of the faculty pleading for help in getting men to care for their farms. The requests caused an investigation that resulted in proving, to the satisfaction of those interested, that the boys and young men of the Kansas State Agricultural College are going home when they are graduated to manage their be happy ever afterward. Not a young man evinced more than passing interest in the offer of the wealthy man.

"I'm going home, to my own farm," said several. Going home! Isn't that fine? Are there two stronger words in the language or two that carry more hope and encouragement for the future of farming in this prosperous, go-ahead state? Not much. On the way with your jobs of managing—out with your attractive offers of salaries and comforts and two-third shares. Why should a Kansas boy listen to such tempters? What more promising outlook might he demand than that contained in his simple answer, "I'm going home to my own farm?" You can't turn the head of a boy with that prospect in view. He is looking ahead, farther than any city farm-owner can look, to the shelter of his own cot with wife and children, and barns well filled and live stock roaming over fertile acres, to say nothing of the bountiful crops. Jobs for these future citizen-farmers? They don't need them. They're going home from college with high ideals of what farming should be and is to be in the near generations, home to the old place with new systems, new hopes, new determinations. Go on with your jobs.—Industrialist.



The Voice of Reconstruction

When a flood sweeps over a vast area, desolating the cities and towns which lie in its course, the appeal for assistance gets a unanimous response from the whole country.

With all commercial and social order wiped out, an afflicted community is unable to do for itself. It must draw upon the resources of the nation of which it is a part.

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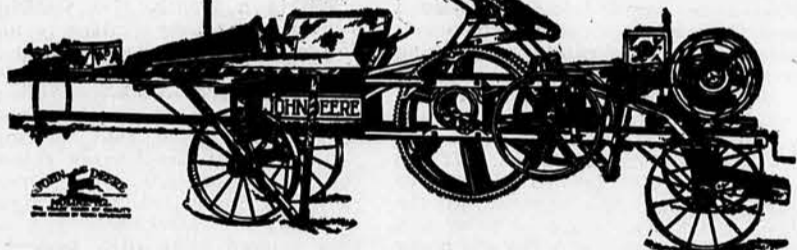
At the most critical time, the nearest telephone connected and working in the Bell System affords instant communication with distant places.

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READ KANSAS FARMER'S CLASSIFIED
ADVERTISING PAGE FOR READY BARGAINS

THE FARM



Suggestions on Cement Silos.

In practically every county in Kansas cement silos are being built this year. If handled properly and if the men doing the work understand the principles of handling concrete, these silos ought to last for a century. Some men are undertaking to build these silos without proper instruction. The Agricultural College has a bulletin on Cement Silo Construction and it will be glad to send it to any concrete worker or farmer who desire to build silos.

One of the most important things to consider in building concrete silos is the re-inforcing. Silos have been built in the state without proper attention being given to this important feature. Ordinary woven wire fencing such as is used on most farms is not sufficiently heavy for re-inforcing at the base of the silo unless it be a small one. It may be used for the top ten or fifteen feet but at the bottom it is entirely too light. Woven re-inforcing is very satisfactory is heavy enough. Those expecting to build a silo this fall should have a silo expert specify the re-inforcing. The Extension Division of the Kansas State Agricultural College is prepared to do this work and will be glad to furnish any information concerning the re-inforcement of silos.—A. S. NEALE.

Sweet Clover in Sherman County.

W. A. McKee, demonstration agent along the line of the Rock Island in northwestern Kansas, and Mr. McDowell, a supervisor of demonstration work employed by the Federal Department of Agriculture, together with another of KANSAS FARMER's good friends, Frank J. Horton of Goodland, recently inspected the alfalfa and the sweet clover growing on the farm of J. C. Gernhart in Sherman County, and each expressed his surprise and gratification at the showing of these crops on May 18 of this year. Mr. Gernhart has 20 acres of sweet clover and 20 acres of alfalfa. Both were sown with barley two years ago this spring. There seemed to be a perfect stand of each. The sweet clover stood eighteen inches high on the above date and looked as fresh as a rose, while the alfalfa stood 12 inches high and showed signs of needing rain.

Mr. Gernhart has taken a crop of sweet clover seed from this field. The sweet clover straw was relished by his stock and Mr. Gernhart will in an early issue of KANSAS FARMER, have something to say at length relative to his experience in growing both sweet clover and alfalfa on this land of high altitude and on which it is about 140 feet to water.

The above is a small addition to the sweet clover information KANSAS FARMER has been able to get for its northwestern Kansas readers. The above in another indication of the possibilities for advancement in live stock farming, which lie before the northwest Kansas farmer. It begins to appear as though sweet clover, properly handled, could be depended upon not only as a pasture and hay crop, but as a money crop also.

Corn No Longer King.

Subscriber E. B. G., Chase County, writes: "I note that some time since you said in KANSAS FARMER that 'corn is the king of silage crops.' Do you not think it time to change your mind since we have such favorable results on cane and kafir silage?"

If our subscriber will examine the files of KANSAS FARMER, he will find that the statement—"corn is the king of silage crops" has not been used we think, within the last year or eighteen months. This, not because we do not think that corn is the best silage crop; we are inclined to the belief that all things considered, corn is the best crop for silage, but when considered from the standpoint of the results obtained from cane and kafir silage by the Kansas Experiment Station and also on the farms of feeders throughout Kansas, and considered also from the standpoint of the surety of cane and kafir as compared with corn, particularly in the western two-thirds of Kansas, there is no question but that cane and kafir are the

silage crops for this section. The silage from cane and kafir in so far as the feed—pound for pound—is concerned, does not give corn any material advantage over either, and when the certainty of a crop and the increased tonnage per acre in the case of kafir and cane, are considered, it is certain that these are the crops upon which Kansas farmers should depend for filling their silos.

The investigation into the relative merits of cane and kafir as compared with corn silage, have been worth millions to Kansas farmers. The live stock possibilities have been increased many fold, and we think, in fact, more than doubled as a result of these investigations. This for the reason that there is not a section in the state which will not produce cane and kafir for silage, and with such facts before us, it is certain that the live stock possibilities can be depended upon in those sections of the state in which in times past the growth of the best feed has been somewhat questionable.

Legal Notice to Halt.

J. P., Labette County, writes: "After reading the finding of the district court on page eleven May 17 issue of KANSAS FARMER, I am wondering what legal signal the driver of a horse drawn vehicle can give when he wants an automobile to stop."

The law reads: "Section 8. Any person operating a motor vehicle shall at request or on signal by putting up the hand, from a person riding or driving a restive horse or other draft or domestic animal, bring such motor vehicle immediately to a stop, and if traveling in the opposite direction remain stationary so long as may be reasonable to allow such horse or animal to pass, and if traveling in the same direction, use reasonable caution in passing such horse or animals, and the operator or occupant of any motor vehicle shall render necessary assistance to the party having in charge such a horse or other draft animal in so passing. Whenever any person traveling with any vehicle or conveyance on any road in this state shall overtake another vehicle or conveyance traveling in the same direction and shall by sound or call indicate to the driver thereof his or her desire to pass, it shall be the duty of the driver of the vehicle or conveyance in front, if the nature of the ground or the condition of his load will permit it, to promptly turn to the right of the center of the road and the driver of the vehicle or conveyance shall then turn to the left of the center of the road and pass by without interfering or interrupting, and the driver of said vehicle or conveyance passing shall not return to the center of the road until at least thirty feet ahead of the vehicle or conveyance passed."

"Sec. 10. The violation of any of the provisions of this act shall be deemed a misdemeanor punishable by a fine not exceeding fifty dollars for the first offense and punishable by a fine of not less than fifty nor more than one hundred dollars, or imprisonment not exceeding sixty days in the county jail, or by both such fine and imprisonment for each subsequent offense."

In the decision to which our subscriber above refers, the court held that the driver of the horse drawn vehicle which driver yelled, "Look Out," had not given the driver of the motor vehicle notice to stop. In the fore part of Section 8, quoted above, is given the law of Kansas regarding such notice.

Cowpeas For Green Manure.

Would it be advisable to plow wheat stubble ground right after harvest and sow cowpeas as a fertilizer and plow them under by the last of September and follow with wheat, providing it is disked and harrowed down and a good seed bed prepared and the wheat sown by October 14? The agricultural college advises sowing wheat about the middle of October for this section of the state. Would there be too much of an air chamber formed underneath by the decaying of the cowpeas? Or, would it be better to follow it with a spring crop in order to get best results from cowpeas.—C. D. H., Parsons, Kan.

Answer: Many soils have been so improperly farmed as to be very much reduced in humus. Such soils are always defective in physical character. Oftentimes they are low in available nitrogen. For soils of this kind a judicious use of green manure often is great benefit. As a rule a properly worked out rotation and the feeding of the crop grown on the farm will keep up the nitrogen supply and also return a sufficient amount of organic material to the soil to keep it in good physical condition.

Cowpeas as a green manure crop have a special value in southeastern Kansas since they are well adapted to the climatic conditions, and being legumes, supply an abundance of nitrogen as well as returning humus or organic material to the soil. This crop may oftentimes be used with very good advantage as a catch crop after wheat or spring grains. At the Kansas Experiment Station, very good results have been secured in clean land by double disking the stubble immediately after the binder and drilling in cowpeas. Under favorable conditions they will make a very good growth before fall. At the station peas have produced a growth 15 inches high when sown in this way. If the land is foul and inclined to be hard and baked, it probably would be necessary to plow it as soon as possible after harvest and harrow down to a fine, mellow seed bed. When drilled in 6-inch drill rows it requires from 4 to 6 pecks of seed per acre. Ordinarily setting a grain drill to sow a bushel and a half of wheat per acre will give about the proper rate of seeding.

It is not usually a good plan to plow under a green manure crop immediately preceding a wheat crop. When a green crop is turned under late in the fall, weather conditions are usually not favorable for its ready decomposition. Even with favorable conditions for the decomposition of the green material, from four to six weeks at least should intervene between the turning under of the crop and the planting of the crop to follow. As a rule green manure crops should be followed by cultivated crops. When sown as a catch crop after wheat cowpeas should grow through as much of the season as possible. This would mean that they should not be plowed under until rather late in the fall.

The preparation of an ideal seed bed for wheat requires time. It cannot be accomplished properly by plowing late in the fall and simply harrowing the surface mellow for drilling in the wheat. Practically all of the best experimental work on the growing of wheat has pointed to the fact that early preparation is the most important factor in the securing of a profitable crop. Under especially favorable conditions, the results of this early preparation may not be so apparent, but under unfavorable conditions it is always the man who has plowed early and carefully prepared his seed bed by the use of proper methods who secures the good yield of wheat. The condition of your soil is undoubtedly such that the green manure crop would be a great benefit. The best method to follow, would be to get this crop in as soon as possible after harvest and plow it under late in the fall before the first frosts come. Next spring the ground should be in good condition to grow a good corn crop.

Late Season Crops For Silage.

Subscriber J. M., Harvey County, writes: "The chinch bugs have taken my first planting of corn and cane. What can I do to protect crops I plant later, from the bugs and what can I now plant that will make silage?"

Everything we could say in waging a fight against chinch bugs has been printed in recent issues of KANSAS FARMER. Our issue of May 24 had an article at length on the construction, maintenance and effectiveness of the chinch bug barrier. We are sending this subscriber a marked copy of that issue with a bulletin from the Entomological Department of Kansas Agricultural College.

Ten or twelve years ago when the editor was farming, we did not know anything about the chinch bug barrier. In those days we would sow a strip of cane around our corn fields and sow this as early in the spring as possible so that it would make good growth and supply a maximum of feed for the bugs when they began moving out of the wheat and oats. The bugs would remain in the cane as long as there was any feed there. Cane is extremely palatable to chinch bugs. We would sow this strip of cane thick to provide as much feed as possible and would

make it a rod and a half to two rods wide. This method would give the corn, kafir or cane crops to be protected, good chance to grow before the bugs attacked them, and we think this plan one deserving of commendation.

Our subscriber should plant either cane or kafir at once for silage. These planted at this time stand a good chance to make silage before frost. Either planted as late as July 1 will in most seasons make good silage. The sooner the crop is planted, the better. Our recommendation is that our subscriber plant at once and if at the end of two or three weeks the planting does not appear favorable for making a crop, then make another planting. We would favor the planting of either, in rows, so that the crop could be harrowed and cultivated and its growth forced.

We would recommend, too, that our subscriber plant some cowpeas. There is ample time for these to make a crop of hay. The cowpea hay is equal to alfalfa hay. The acre tonnage, of course, will not be so great as from a season's cutting of alfalfa. The chinch bugs will not effect cowpeas. These can be planted now to best advantage but could be planted as late as July 1 with good prospect for a hay crop. The wheat and oats ground will make a good seed bed for the peas after this ground has been disked. The peas may be broadcasted or drilled at the rate of a bushel

and a peck to one and three-quarters of a bushel to the acre. This subscriber evidently is confronted with a serious situation in that his early planted feed crops have been destroyed. There is only one thing for him to do and that is to keep planting and sowing and so take advantage of the only chance for a crop to fill his silo and to supply hay.

It is not too late to plant cowpeas for a seed crop. There will be money in a seed crop this year as there was the past year. This, because the acreage of cowpeas will next season be increased very materially over any acreage heretofore grown in Kansas and the seed is certain to be in great demand. We cannot escape the cowpea; first, because we need the feed either in the form of hay or in the shape of cowpea meal, and second because we need it as a green manuring crop. There is no reason why the farmer should buy cottonseed and linseed meal when he can grow cowpeas and the meal from the same furnishes him protein in fully as palatable a form. The cowpea as a catch crop and sown immediately after harvest, supplies the cheapest means of green manuring or a hay crop if he needs it. Whether or not the farmer realizes the necessity of protein feed and green manuring, it is certain that he can sell the seed to good advantage. If he grows his own cowpeas he can afford to feed them. If he does not

grow them, he can buy protein in cottonseed and linseed meal cheaper than he can obtain it through the purchase of cowpeas. In past years the cowpea has been selling on the basis of its value for seed and that price is in excess of what it is worth as feed. With plenty of cowpea seed in the country it is certain that the acreage of cowpeas will be increased and better feeding and more productive yields will follow.

Farm Machinery Lubrication.

One of the little things that is lacking on a majority of farm implements is a good and convenient system of lubrication. The common oil cup with open top or loose cap is sure to get filled with dirt and grit which cut out the bearings, largely increasing the power required to operate the machine and greatly reducing its period of usefulness.

The hard oil cup, which holds enough oil to last a week or more, is always tight and can be screwed down a little each day, thus insuring a clean bearing and a regular supply of grease. Many of the common implements could be vastly improved by replacing the common oil holes with hard oil cups.

The oil holes can be easily reamed out and threaded to the proper standard and the hard oil cups screwed into them. The amount of work and expense required will be returned many fold in the saving of horse flesh and in the increased life of the machinery.

No-Rim-Cut Tires 10% Oversize

Controlled by Secrecy

The essential feature in No-Rim-Cut tires is made under lock and key.

We control it by secrecy.

Other attempts to make tires which can't rim-cut have cost fortunes in faulty tires.

No-Rim-Cut tires, for years and years, have served hundreds of thousands well. Not one has ever rim-cut.

That is why the demand centers on them. Goodyear tires have come to outsell every other tire.

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The secret lies in six flat bands of 126 braided wires. They are vulcanized into the tire base.

That makes the tire base unstretchable. The tire can't be forced off without removing a rim flange. So we don't hook the tire to the rim.

With this hookless tire you turn your rim flanges outward—not inward as with clincher tires. Then the tire, when wholly or partly deflated, rests on a rounded edge. Rim-cutting is made impossible.

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No-Rim-Cut tires have 10 per cent more air capacity than the same rated-size in clinchers. And air is what carries the load.

This over-capacity, on the average, adds 25 per cent to the tire mileage.

So the tires save rim-cutting and save over-loading. They save so much that they have become the most popular tires in the world.

The Vital Bands of Wire

But our braided wire bands are considered essential to a faultless tire of this type.

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Now no standard tires of any type cost less than No-Rim-Cut tires.

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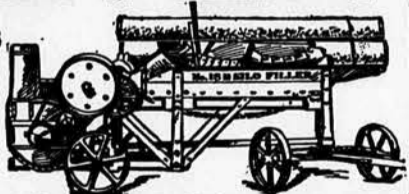
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DAIRY



We are wondering how many bankers there are in the state of Minnesota who have as much interest in the welfare of their communities as has Charles F. Fiman, Elk River, who writes: "Any man who is a capable manager and farmer can ask for a loan of almost any amount for the purpose of buying Holstein cattle and I will unhesitatingly advance the money and feel as safe about its being paid back as I would if I had a real estate mortgage. One of my valued customers about two weeks ago asked for a loan of \$1,400 that he might buy some full blooded Holstein cows. I advanced the money, the man went to a breeder and bought six head—one sire and five cows. I actually believe this was the best investment the man ever made. Our dairy industry is still in its infancy but with a little coaching, a little work, a few facts and words of encouragement, we will in a short time have a fine Holstein dairy colony here." We assume that Mr. Fiman would have loaned money to buy first class dairy animals of any breed. The point is that he knows the value of dairying to his community and that he is backing his confidence in dairying with the money in his bank. Dairying will not do more for any Minnesota community than it will do for a Kansas community. Notice is here given to Kansas bankers who may read this, to communicate with Mr. Fiman and we hope as a result of getting his ideas that bankers will support the purchase of dairy stock with the "coin of the realm" instead of by encouraging words which prove meaningless when the loan is called for.

The dairy cow is the most wonderfully developed creation of the ages. A writer, commenting upon the records of the dairy cow, said: "Some day these records are going to get so high that the public will say as Artemus Ward did—'this is too much'—and refuse to credit them; there must be a limit somewhere to the capacity of the cow." We are cognizant of the fact that to the man who has never handled large producing cows that it is difficult to realize the ability of cows to produce as they do. We ourselves have seen such remarkable cows—cows to far superior to those we regarded as possible—that we cannot in good faith question the producing ability of any cow the record of which is reported under safeguards thrown around official testing as conducted by the various dairy breed associations. The dairy cow will continue to improve and develop just so long as human intelligence increases in the feeding and handling of such cows.

fat producing cow at a cost of \$35 to \$40 a year, is using very poor judgment in the feeding of his cow. The fact is that the feed consumed by the average Kansas cow is worth very much less than this. The good farmer on Kansas soil who will provide his cows with silage and alfalfa hay, need not worry about cow-feeding cost. He will be feeding as cheaply as it is possible to feed. All he need look out for is a herd which each year produces a little more butter fat per cow than is produced the year before. This system of feeding and the breeding up plan of improving the dairy herd will make it unnecessary to inquire closely into feeding cost. If the farmer is going to be extremely particular with reference to the cost of feeding dairy cows, let him exercise a little of the same close examination into the profits resulting from the production of grain for market. It is a poor dairy cow that will not pay more for a bushel of corn than it will sell for at the elevator.

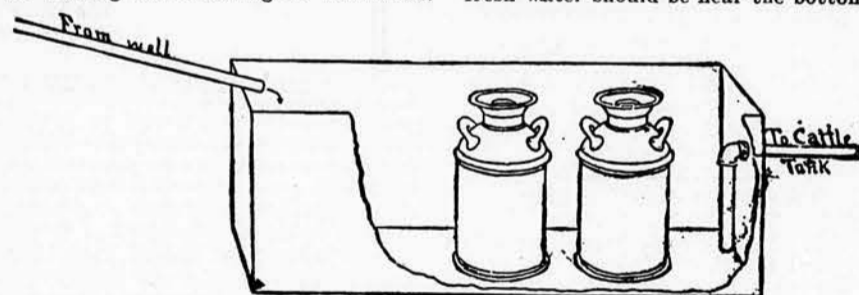
Dairying At Hays Station.

The Board of Regents of the agricultural college has recently determined upon plans for the building of a dairy barn at the Hays station, as a part of the equipment of the Hays model dairy farm. Dairying is to begin on the Hays station farm at once. The dairy farm is to be an independent unit in which all expenses are to be charged and all credits taken, the idea being to determine whether or not dairying can be conducted upon a profitable basis under the conditions of soil and climate prevailing at Hays. On this dairy farm nothing will be done, nothing will be bought and nothing will be used that may not be done, bought and used by any energetic farmer.

To Keep Cream Cool.

After separation, cream should be cooled immediately. Fresh cream should never be added to that of a previous separation until it is cooled to the same temperature. The cream can should be covered with a wet blanket in the summer time while on the way to the cream station. As the moisture evaporates from the blanket the heat is drawn from the can and the cream remains at a low temperature.

An ideal way of keeping cream cool is to have a small tank placed between the well and the stock tank into which all the water must be pumped. Put the cream in shot-gun cans and place them in this small tank and arrange to have the water in the tank two or three inches higher than the cream. The inlet of fresh water should be near the bottom of



The increasing milk records have increased only in proportion to the improved methods of breeding, feeding and care-taking, and just in proportion that human ingenuity improves upon these things will the dairy cow improve. It is foolish to suggest a limitation of the products of the dairy cow just so long as improved methods of handling her are unlimited.

the tank and the outlet of the warmer water should be at the opposite end and near the top.

A satisfactory cooling tank is shown in the illustration on this page. This tank will be rendered more effective if a frame be built around the outside, leaving a four-inch space, which when packed with closely-tamped hay or straw will insulate it. The tank should have a cover. This should be doubled, also, allowing for insulation.

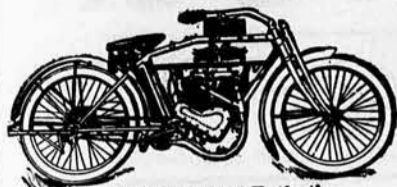
Selling and Replacing Cows.

A writer in an Aberdeen, S. D. paper says: "The average cost of keeping a cow has increased from \$50 and even less, to approximately \$90 per year." The writer does not state whether he refers to a cow producing 700 or 800 pounds of butter fat per year or one producing 150 pounds. If he refers to a cow of the first named ability, then she is being fed cheaply enough. If he refers to the latter kind, pray tell us what they feed cows in South Dakota. It costs something to feed a cow, that is certain; but the Kansas farmer who cannot feed a 300 to 400-pound butter

As we have remarked before in this column, there were thousands of common cows bought by stockmen in all parts of Kansas the past winter and

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The lenses in these telescopes are made by experts and are carefully adjusted. Objects can be seen many miles away that are indistinct to the naked eye. Farmers and ranchmen find these telescopes very valuable in watching stock or people 5 or 10 miles away. By watching the clouds with this telescope some can tell the approach of a storm early and prepare for it.

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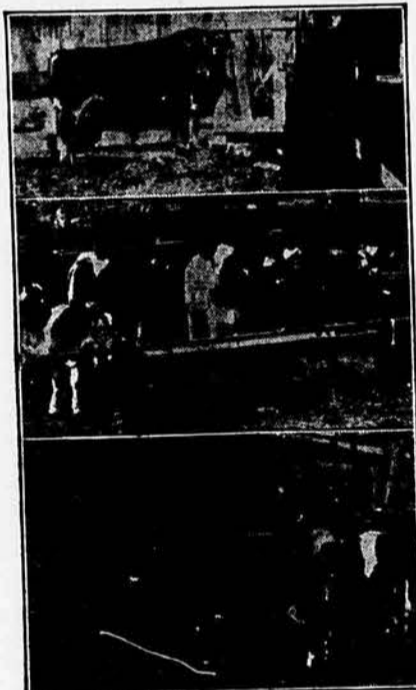
KANSAS FARMER,
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To reach the well to do farmers of Kansas and surrounding territory with a heart-to-heart business talk, use our Classified Columns. Ready buyers at a Low Cost.

these cows were shipped out of the country and put on large tracts of land where they will be used as breeders for the production of feeding cattle. Hundreds of farm dairymen sold their cows because they were offered \$5 to \$10 more than they believed them to be worth. We are of the opinion that thousands of such cows were sold for more money than they were worth as strictly dairy animals, yet unless these same farmers have replaced these cows with better milkers it is certain that they will feel the depressing effect of a smaller cream check this season. It is safe to say that any of these cows were worth to the Kansas farmer as much—and we believe more than they were worth to the man who bought them. There is no getting away from the fact that we must maintain more live stock on Kansas farms and while maintaining the cattle herd it is profitable to milk all the cows the help will permit. We cannot increase our cattle population so long as we sell the females at what looks to be a long price. We know personally of a few farmers who sold their cows and who at the time of selling determined to buy some good milkers. When they went about looking for these milkers they found that the prices of such were so much higher than the prices at which they sold their common stock that they became weak of courage and did not buy. The first class good milker is selling at long prices—in fact at prohibitive prices for many farmers. The way to get a good milker is not to buy her—it is to breed her on the farm, and this can be done only by having some good common cows with which to make the start.

Guernsey Farm Scenes.

The Guernsey bull, Masher's Victor, shown at the top of the accompanying picture, has just been returned to the farm of R. C. Krueger, Burlington, Kan., from the Kansas State Agricultural College, where he has been used in the state herd. Mr. Krueger loaned this bull



to the great State of Kansas. The second picture in the above is of some of Mr. Krueger's Guernsey calves, from which great things are expected. At the bottom is shown two or three of Mr. Krueger's good Guernsey cows.

Dairying Profitable in Bourbon County.

The Bank of Bronson is mailing out a little circular to its patrons in which they show their interest in the agriculture of their local community. In this leaflet they say they naturally desire to co-operate, and especially in a business way, with the farmers around Bronson. They state as their belief, "There is absolutely nothing on a farm that will pay the returns of a first-class milk cow, used in connection with hogs and calves in this community."

"To get the most out of a cow one should have silage for winter feed, and still better results will be obtained if silage is fed during the summer months. This is not mere theory, but it is the actual experience of hundreds of dairy farmers. The silo will do as much good for the beef cattle farmer as it will for the dairy farmer. Our theory, backed up by the experience of hundreds of dairy farmers, is that cows should freshen in the fall, and if fed silage will go on grass in the spring with practically a full flow of milk. The calf by this time is ready to go on grass with little or no milk, and is far enough advanced to go through the hot summer in good shape. If he is a beef animal he can be finished out on silage and cot-

toneed meal the following fall or winter as baby beef and will pay a larger profit than at any other time.

"By the time the fall calves are taken off of milk the spring calves are old enough to wean and the skim milk is turned to them. Everybody knows what skim milk does for hogs. Before cold weather they are marketed in good weight, and if a farmer cannot make money on skim milk hogs it is no use to try it otherwise.

"Mark these words: The man who owns a good bunch of milk cows in three or four years from now will be called 'lucky.'"

Dual vs. Special Purpose

(Continued from Page Four)
of the calf from this cow too high. The \$75 twelve months steer, not allowed to suckle the cow but reared on skim milk and other feeds is very hard to find. Skim milk is an excellent calf food, but it must be handled by an expert to get such results. The \$75, hand raised, twelve months steer is the work of an artist. He is the product of good breeding, high feeding and expert care. He is not all profit. He must weigh not less than 900 pounds, and be of good beef type to bring \$75 today. Taking the average values of the past five years he would have to weigh at least 1,000 pounds to bring the price.

I ask Mr. Harned how many farmers in Kansas or Missouri are producing an occasional individual specimen of this sort on skim milk and grain ration? And I also ask him to produce a single cattle man in America who is selling \$75 worth of cattle annually for slaughtering purposes for each cow kept on the farm, selling everything at twelve months of age and growing the calves on skim milk and grain? Will Mr. Harned favor the readers of *KANSAS FARMER* with his own experiences along this line, showing just what the average per cow has been in past years in his herd?

It must be remembered that taking into account abortions failures to breed and other losses, an average of 85 yearlings from 100 cows is high; that half of these will be heifers, and 10 to 25 of them will be of an inferior grade. Hence, though an occasional calf may be produced that will sell for \$75 at 12 months the average of even the well bred herd will be 25 to 35 per cent below this, and when the cost of feed together with the labor is considered the actual profit per cow from this source is too small in most cases to make good the loss in keeping the cow for milk production.

In my judgment no man can afford to milk a cow unless she is a good one, whether his farm is large or small. The small farmer is the man of all others in Kansas who should have the dairy cow, provided he is keeping cows for butter or milk production. He is the man who has more time and less feed than any other, and this feed should be used to the best possible advantage. The same amount of energy necessary to secure an average dual-purpose cow will get a high class dairy cow. Not the kind that Mr. Harned speaks of as returning \$50 worth of products, but the sort that will produce \$80 to \$100 worth of butter fat and \$20 worth of skim milk, and whose heifer calves will bring from \$50 to \$75 each at one year of age, and require much less feed to produce than the 900-pound yearling steer. Her bull calves may be of small value but they need not be counted at all to show a handsome profit for this cow. The cost of keeping her and her heifer calf will be less than that of keeping the dual-purpose cow in milking condition and get her calf ready for market at 12 months, while the income will be much more.

I do not believe that every farmer in Kansas should be a dairyman, or that every part of the state is well adapted to dairy husbandry. But I do believe that the dairy farmer can increase his profits 50 per cent with good dairy cows over what he can hope to realize from the same thought and effort spent with dual-purpose cows.

I know that there are dual-purpose cows that are profitable from the dairy standpoint, but there are not enough of this sort to be had today for but a small per cent of the dairy farms of the central west, and the breeding and production of them is attended with so much uncertainty that the dairy farmer had much better confine his investment of money and energy to improving his herd along strictly dairy lines. Likewise, the man whose principal industry is beef production will find the greatest profit in developing his herd along early maturing, easy fleshing lines.—A. S. NEALE, Extension Division Kansas Agricultural College.

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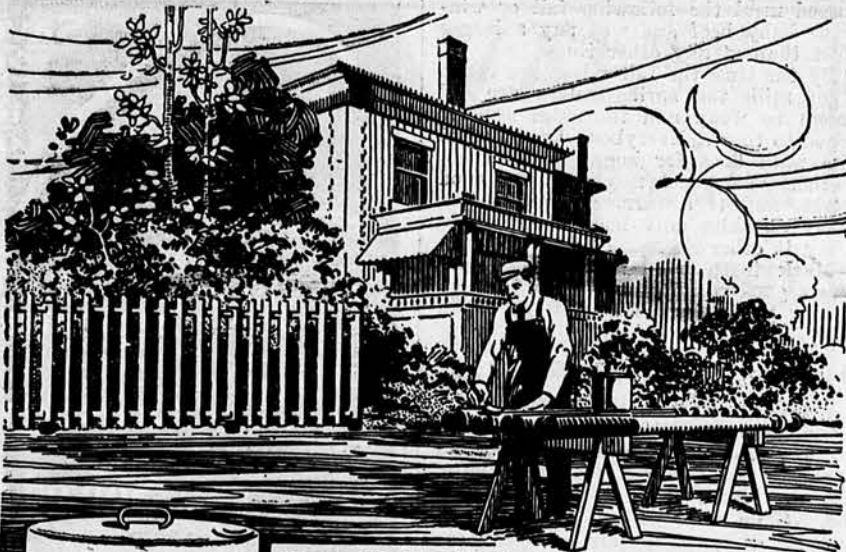
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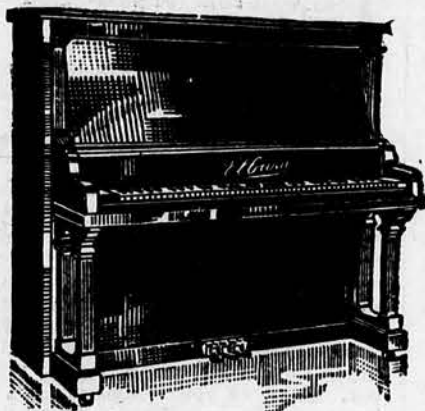
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All pianos on comfortable monthly payments. Write for catalogue and prices. New pianos, \$125.00 and up. Used pianos as low as \$50.00. Guaranteed new player pianos, \$135.00 and up. Call and write.

Parkville, Mo., May 30, 1913.
Dear Sirs:—In the spring of 1912 my brother, C. E. Hughes of Kansas City, Mo., purchased an "Elburn" piano from you. It has always been satisfactory, and words cannot express the enjoyment we have had from it. Respectfully yours,
MAURINE HUGHES,
Parkville, Mo.

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

Use A KANSAS FARMER SAFETY RAZOR



Price complete 65c. With 12 Extra Blades \$1

This Razor is not silver or gold plated. It is heavily nickle plated and will not rust. It will not clog up, as many safety razors do. It is made for every day use. No delicate parts to get out of order.

Guaranteed unconditionally to shave as good as any razor made, none excepted at any price.

Packed in a neat box. An embossed, plush lined, leather case does not improve the cutting edge of a razor.

Sent free to any subscriber, new or old, sending \$1.00 for a year's subscription and 15 cents extra for shipping. If extra blades are desired, add 10 cents for each three or 35 cents for one dozen.

Throw away your old razor and enjoy a clean, easy shave, and no chance of cutting your face. Address,

KANSAS FARMER, Topeka, 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 advantages, in a city clean, progressive, where real estate values are low but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest price, address the
SECRETARY of the COMMERCIAL CLUB, Topeka, Kansas.

\$10.00 Sweep Feed Grinder. \$14.00 Galvanized 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

LIVE STOCK



Brood Sows Have Rheumatism.
Our subscriber, E. J. N., Butler County, reports having some brood sows, which have suckled pigs for four weeks and have been ailing for sometime with symptoms resembling rheumatism. Rheumatism is quite a common ailment in swine. As a rule it occurs in animals that are confined in damp quarters and do not have sufficient exercise. Sometimes the improper character of the feed supply may be at fault. About the only treatment to suggest would be to place the animals in dry, warm quarters and perhaps introduce a little greater variety in the food, especially along the line of foods somewhat laxative in character.

The Proper Spirit.

"We find a general tendency to return to live stock farming," says the Atwood, Kan., Citizen-Patriot. No better news could come out of northwest Kansas. No better business could be undertaken there. "Had the question been more carefully considered two years ago," the paper continues, "there is no doubt that many of the farmers of Rawlins County and northwest Kansas would have been in decidedly better financial condition today. There are hundreds of tons of fine forage in the stack in Rawlins County today for which the farmers have no market or stock to consume it, which means a loss of many thousands of dollars to the county. There is more truth than poetry in the saying that stock is an asset and wheat and corn a liability."

Feed the Roughage at Home.

Corn fodder, kafir, sorghum and other rough feeds of the farm have absolutely no market value except as fed to cattle. Some of the other more valuable roughages which are commonly shipped to the markets such as alfalfa, could be made far more valuable if fed to cattle where produced. Much of the alfalfa now being shipped from Kansas should be fed out and shipped only in the form of condensed meat products. It was predicted at the recent meeting of the Kansas Dry Farming Association at Garden City, that Finney County would, in the near future, become a great cattle feeding center. Alfalfa is grown in the greatest abundance in the irrigated sections of this valley. The higher lands are much cheaper but are valuable for producing the cheaper rough feeds. With the conditions as they are, the realization of this above prediction seems easily possible.

Kafir Silage More Profitable Than Corn.

Kafir silage made 28 per cent more profit than corn silage in wintering beef calves at the Kansas Agricultural College. Sweet sorghum silage made 8 per cent more profit than corn silage. This feeding test made with Hereford cattle shows how Eastern Colorado, Western Kansas, Western Oklahoma, the Panhandle and all Western Texas may become great centers for fattening beef cattle.

Corn silage has usually produced better gains than either kafir or sorghum silage. The reason was found in this test. The kafir and sorghum used to make silage for this feeding test were cut when the seeds were practically matured, but while the stalks were green and filled with sap.

Cottonseed meal was fed with each kind of silage. The daily gains made from feeding kafir and sorghum silage were slightly larger than those made from feeding corn silage. The chief increase in profit came from the lower cost of both kafir and sorghum silage on account of the higher yield per acre of these crops. The yields obtained per acre on upland were: Corn, 7.1 tons; kafir, 6 tons; sorghum, 8.2 tons. The following yields are possible per acre on bottom land: Corn, 15 tons; kafir, 17 tons; sorghum, 23 tons.

Kidney Worms in Swine.

Our subscriber, T. B. S., from Texas, writes that he recently had a sow droop around until she finally died. On examination he reports finding her kidneys and leaf lard full of spotted worms an inch and a half long. A careful diagnosis by a competent veterinarian

would be necessary to settle positively the nature of this ailment. A hog sometimes becomes infested with kidney worms. These worms vary in length from a few inches up to as long as three feet in the female, and one-half inch in diameter. When such worms are present, they gradually destroy the substance of the kidney. The walls of the kidneys often-times become hardened with calcareous deposits. There appears to be no known remedy for this parasite when it once becomes lodged in the kidney. Even its life history is not fully understood. The only positive proof of the presence of the worm during the life of the hog is the finding of its eggs in the urine. Kidney worms have been found in the kidneys of pigs which were apparently in perfect health. The loss of motion in the hind parts of pigs is sometimes attributed to kidney worms. In most cases, however, this symptom is not due to the presence of this parasite. In other words, paralysis of the hind members is not considered a symptom of kidney worms.

Big Prices For Kansas Horses.

Those who believe the motor cars are driving the horses out of the country will be interested in the report of a sale in Chicago of a string of horses from Kansas. The report shows that the Kansas horses, disposed of mostly at retail, brought high prices. One pair of big grays went to a New York firm for \$775. A pair of browns, a mixture of Shire and Percheron blood, sold for \$685. The lowest price obtained for any of the horses sold by one breeder was \$312.50. Pairs of good farm mares went for \$440 and \$450. Even the light driving sorts were in better favor, and anything desirable for city or town use was in instant demand. Feeders, by which is meant big horses in only feeder condition, went as high as \$600 a pair, but not to be fed out and returned to market.

Swift & Company bought a gray gelding at an even \$500, and three others of the same color and of the same brand sold for \$975. Sales at \$300 were so frequent that the ceased to excite any wonder. Three-quarter sorts were bringing amazing prices, and good shapely chunks went for more money than they have at any time this season.

All of which leads KANSAS FARMER to believe that the future of the draft horse business is a better business than it has ever before been. Good stock and good rearing will give good reward.

Increasing the Beef Supply.

A magazine writer in a recent article concerning the shortage of beef cattle mentions as one of three distinct signs of promise, the discussion of passing a law prohibiting the slaughter or sale of all heifer calves under three years of age for the next three years, and after that a law fixing the minimum age at which calves may be killed for food. It is true that many calves are sold for slaughter which might profitably be grown out and put on the market as more mature beef. The principal reason for this, however, through the farming sections at least, is that with the increase in land value, the growing of cattle has tended to become unprofitable when carried out along the methods followed in earlier days. A law prohibiting the slaughter of heifer calves would come far short of the purpose aimed at. We might just as well legislate as to the number of acres of corn or wheat a farmer should grow, or the number of bushels of this product he might put on the market as to legislate along the lines suggested.

The author referred to mentioned as another sign of promise a series of educational trains to be run throughout the middle west to teach the farmers how they may profitably convert the rough feeds of their farms into finished meat products. This idea is fundamental and is already being carried out by all the agencies interested in the better development of our agricultural conditions.

It is claimed—and we believe the statement correct—that the Grange has secured more good farm legislation than any other one organization. A kick or a push from a million men and women members of the Grange, carries force.

The New School of Agriculture

An Epoch Making Departure of the Kansas State Agricultural College

OMETHING along the line of this new School of Agriculture has long been a cherished dream of President Waters. As Dean of Agriculture of the Missouri Agricultural College, he proposed a similar plan for the Missouri school. He advanced a similar idea when he first came to Manhattan, but found the Board of Regents rather slow to take up his suggestion. He finally won them over and last October the faculty was requested to prepare a course of study for the new "School of Agriculture." The new board of administration, to whom the plan was presented, gave its cordial approval and ordered its immediate adoption.

KANSAS FARMER rejoices over the new departure. It has long been known that a large proportion of the farm boys and girls of our state would never give the eight years now required to complete the high school and college career. Hitherto no direct provision has been made to meet the needs of this large proportion of the boys and girls, excepting a section of the college work which was not really suited to their requirements. A long felt want is filled by this School of Agriculture. We urge upon parents of the boys and girls of the farm who may be interested to send to the Agricultural College for the very interesting pamphlet which tells all about this school.

THE new School of Agriculture is the latest and one of the most important steps yet taken by the Kansas State Agricultural College. It is not an invention strictly; it is a development along the lines in education that some of the leading educators have been considering for years. Hitherto, courses of study in the common schools and high schools have been arranged to suit those who go through college. The new thought is to make selections of studies best adapted to those who merely "go to school."

Not to speak harshly, higher education as now arranged is more or less of a blight upon all public education, not reaching up to the college standards. Beginning with the very first year of the primary school all the instruction through the primary and high schools has pointed toward the mystic letters, "B. S." or "B. A." When the high school is reached, the courses are officially revised to fit the needs of those who want a continuous incline that leads up to a college "sheep skin." However, for those who do not want a "sheep skin," or have not the time or money to acquire it, that arrangement is not good. It puts upon them unnecessary expense. Educationally they travel unnecessary distances, so to speak, because the only educational route that is open to them is the "college route," which is not the natural route for them, nor the direct route to the best results.

Many people are in doubt as to the value of a college education as a preparation for industrial life. The Agricultural College is now prepared to meet this class of objectors, not with arguments, but with an educational attachment built according to specifications intended to fit their demand. The School of Agriculture is direct in its purpose. It leads by the shortest route to bigger crops for the farmer; better results for the craftsman; better management, better food, less waste and more joy in the home.

The course of study in the School of

Agriculture is built on the theory that the student has only three years to attend school after leaving district or primary school. These three years then are packed full of preparation for productive life, with whatever culture can be put into so short a course. The school will follow the college in its two great divisions: agriculture and mechanic arts. On the woman's side there will be but one division, the administration of the home. In agriculture the stress will be put on farm machinery, farm management and practice, adaptations of soil and climate, crop rotations, improvement of seed, live stock, dairying, the production of animal fat, gardening and orcharding.

In the mechanic arts division there is no effort to teach trades. The aim is rather to give the student a proficiency in the use of tools so that when he goes to choose his particular line of craftsmanship he will be able to back up his specialty with an all-round familiarity with tools and mechanical operations.

As for the young woman, no portion of their time will be diverted from the great purpose of making them competent housewives. The school will not be all bread and butter. There will be less of the cultural than might be if no space at all was given to practical matters; but a thorough training in English speaking and writing, in English literature and the fundamental mathematics, and an introduction to the natural sciences. The result is that the School of Agriculture compares with a high school course, as to the culture of both, in about the proportion of three to five. The outcome is a fair academic equipment. The student in the School of Agriculture will have acquired a love for books and reading that will make a splendid ground-work for self-culture afterward, and in fact it will lead him up to where he can look over into "college land" and, if the desire for further scholarship has claimed him, he may without any loss of effort go on and take the college course itself.

Forty Cattle on Fifty Acres

Keeping 40 head of cattle on 50 acres of land seems to KANSAS FARMER an achievement worthy of some note. This is what James W. Helme, Dairy and Food Commissioner of Michigan, is doing, and there are no conditions surrounding his accomplishments which will prevent hundreds upon hundreds of 50-acre owners in Kansas from duplicating.

On the 50 acres Mr. Helme winters each year 40 head of cattle and three horses. The cattle are not all cows, but include animals of all ages such as are found on a working dairy farm. However, 20 cows are kept constantly in milk. From \$25 to \$50 a year only is expended for grain. Outside of this all the feed necessary to carry the above animals is grown on the farm. These crops are only three in number—alfalfa and corn being the principal crops, and some grass pasture.

About 20 acres of corn is planted each year. This yields from 15 to 20 tons of silage an acre. Ten acres fills two silos—one for summer and one for winter—and the other ten acres supply Mr. Helme with the grain necessary for cattle, horses and hens. This corn is cut and shocked, and during the fall and winter is shredded.

Fifteen acres are seeded to alfalfa, producing all the alfalfa hay needed through the year. Each year three acres of alfalfa are seeded and three acres plowed up. Three cuttings a year of the alfalfa are made, and the total yield is about five tons an acre. The alfalfa is cut as soon as the first blossoms appear.

Mr. Helme writes that corn silage and alfalfa hay make an ideal ration for the dairy cow and that with this ration little if any grain is needed. However, he feeds two pounds of cottonseed meal a day on silage the first four weeks after the cows freshen, and it is for this meal that he makes the money expenditure above mentioned. Mr. Helme says that he would not be able to raise sufficient crops to sustain this amount of stock without saving every bit of fertility possible. His plan, therefore, is to save all the manure, and in fact produce all the manure he can by liberal bedding, and a considerable part of his shredded corn fodder is so used. The corn ground, alfalfa and pasture are top-dressed each season and he uses from one to two tons of acid phosphate a year, this being used on the corn land and distributed by fertilizer attachment on the corn planter.

The only thing sold off this farm is cream, calves and poultry products.

Buy your wife and daughters these tools

Women folks are never done mending, patching and sewing. Your duty is to see they have good scissors, shears and sewing outfits. Specify Keen Kutter when you buy these articles; then you know you have bought the finest quality.

KEEN KUTTER
Scissors and Shears

cut clean and snip true. They have sharp edges and tight joints. The shears have a patent lock nut and screw which positively prevent any looseness or play between the blades. Keen Kutter scissors and shears last many years and they are fully guaranteed, because if you find a flaw, or are not in every way satisfied, your dealer will hand back your money.

"The Recollection of Quality Remains Long After the Price is Forgotten."
—E. C. SIMMONS.
Trade Mark Registered.

If not at your dealer's, write us.
SIMMONS HARDWARE CO., Inc.
St. Louis, New York, Philadelphia, Toledo,
Minneapolis, Sioux City, Wichita.

Scissors in genuine folding black walrus case. No. K149. Price \$3.00.

Scissors in case of genuine folding pigskin. No. K1500. Price \$4.50.

Shears, No. K1-4 in. Price \$1.00.

BIG BARGAINS IN AUTO TIRES

ALL MAKES—Diamond, Fisk, Ajax, Century, U. S., Firestone, Goodyear.

You pay 30 to 50 per cent more to your local dealer than we ask you for motor car tires. Quick shipments. Every tire C. O. D. on approval. Established five years. We are the oldest and largest cut-price tire house in the West.

Some Prices: 30x3, \$10.10; 30x3 1/2, \$14.20; 32x3 1/2, \$14.90; 33x4, \$19.85; 34x4, \$21.20.

Atlas Tire Co., 1532 Grand Ave., Kansas City, Mo.

Bargains in Land

80 A. Improved Valley Farm, 35 cult., on Ry. \$16 a. Robert Sessions, Winthrop, Ark.

HALF SECTION AT BARGAIN. A well improved half section, fine level land, near town in Thayer Co., Neb. For price and particulars write **WM. GALLANT, Hebron, Neb.**

LAWRENCE REALTY COMPANY The Home of the "Swappers," handles exchanges of all kinds with agents or owners. Write us for particulars. Lawrence Realty Company, Lawrence, Kan.

CLOUD COUNTY LAND. Good wheat farm, 160 acres, eight miles from Concordia. All in wheat. A bargain. Write for particulars. **W. C. WHIPP & CO., Concordia, Kan.**

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

FOR SALE—CORN AND ALFALFA FARM. 220 acres, all fine river bottom land; no better in Kansas; all in cultivation; well improved; 5 miles from Manhattan. Price, \$150 per acre. Good terms. **Bardwell Real Estate Co., Manhattan, Kan.**

DICKINSON COUNTY BARGAINS. We have many fine creek and river bottom farms, also splendid upland farms for sale. Soil deep rich black loam, producing the big corn, wheat and alfalfa. Our prices are reasonable. Write for terms and list. **Briney, Pautz & Danford, Abilene, Kan.**

233 ACRES fine irrigated land, Lower Rio Grande Valley, San Benito, Texas. On main canal, boulevard and interurban; improved; under a high state of cultivation. \$200 per acre, including the crop, takes this; half cash, half income city property. **The Brown Land & Loan Co., Superior, Neb.**

LAND FOR SALE

Any amount of it, in Nebraska and adjoining states. We have cheap land and also high priced land. Write us at once and let us know your wants. We have it. **CHRIS HICKEY, Fairbury, Neb.**

Something Unusual

640-acre ranch in Dickinson County, Kansas. Four miles from town; 140 acres cultivated, balance bluestem grass; good house, barn, cattle sheds, granary, cribs, scales, good orchard, well watered by numerous springs; sheltered feed yards. One of the best stock farms in Kansas. Price, \$30 per acre. Owner will carry \$12,000 for twelve years at 6 per cent. Lady owner lives in Canada, hence the bargain. **MOTT & KOHLER, Herlington, Kan.**

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

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

A Fine, Well Improved MISSOURI FARM

of 274 acres at \$85.00 an acre to trade for a stock of good merchandise at its value. Come quick for this. **H. B. BELL LAND COMPANY, Commerce Building, Dodge City, Kansas. Phone 2.**

A Bargain For Cash. If sold soon. Eighty acres close to Elk City, Kansas. Good 5-room house, barn and other outbuildings. Plenty of fruit and shade trees. Good water. Six acres alfalfa, 10 acres pasture, balance under cultivation. Price, \$5,000, with all the crop. One horse, 5 dozen chickens, and some machinery. Mortgage of \$1,000 which can stand. Possession in two weeks. This price holds until July 1. **JESSE A. SIMPSON, Scandia, Kansas.**

ONLY \$3.00 CASH

BALANCE \$1.50 PER MONTH Pays for a level, well located, 50x140-ft. lot at \$30 for inside lots and \$35 for corners—in the prosperous little city—Plains, Kansas. Where prices are advancing rapidly and good profits assured. Send first payment for contract on guaranteed lot, or write for complete information. **MUST ACT QUICK. JOHN W. BAUGHMAN, Plains, Kansas.**

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

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

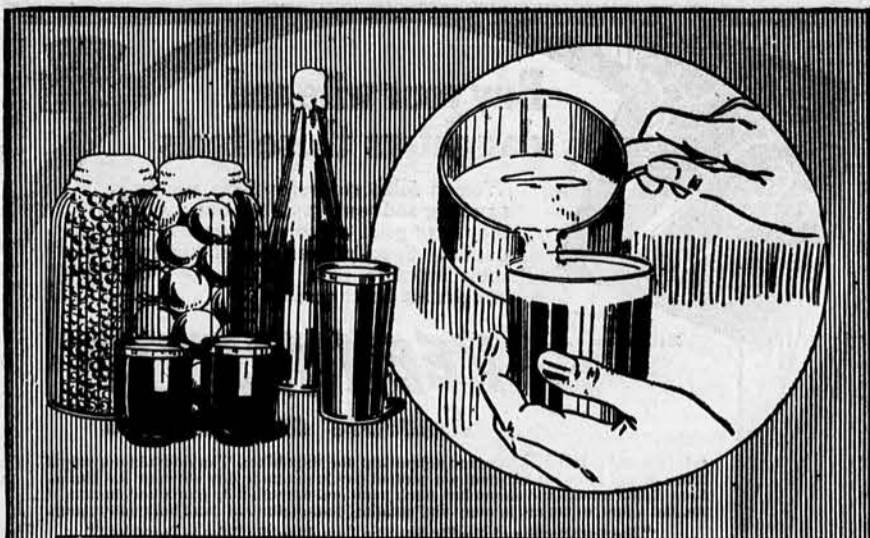
RANCH--1,880 acres

Modern improvements, 300 acres alfalfa land. Trego County, Kansas. \$25.00 acre, encumbrance \$7,000. Want smaller farm. **BUXTON, Utica, Kansas.**

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LOWER YAKIMA VALLEY, WASH. Twenty acres at Richland, Benton County, Wash., on the Columbia River, highly improved, irrigated orchard tract set to best varieties of commercial apples, with peach and pear fillers. Trees 4 years old and will come into bearing next year. Best of soil, abundance of water and mild climate. 4 acres of strawberries paying \$400 per acre; alfalfa yielding 4 cuttings, or 3 to 10 tons per year. Comfortable home and good barns with a well equipped dairy and 10 grade Jersey cows. For particulars address owner, **C. D. MITCHELL, Richland, Wash.**

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Sealing with Parowax is much simpler and easier, too. No struggling with tops. No fuss, no bother. Not even paper covers need be used.

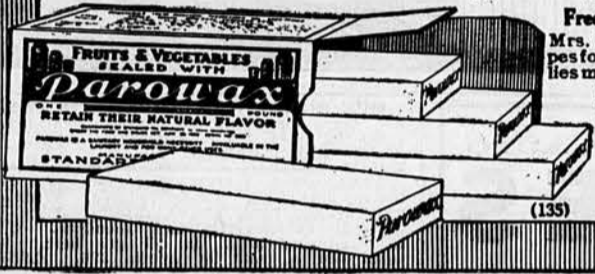
Pour this pure, refined paraffine directly on the cooled

contents of each jelly glass. Dip tops of jars and bottles in melted Parowax. No mould or fermentation can result.

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is indispensable in the laundry—both for washing and starching as well as ironing.

Costs but a trifle. Sold by all druggists and grocers.



Free Book of Recipes Mrs. Rorer's prize recipes for preserves and jellies mailed upon request.

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Thousands needed on account of the Parcel Post and the extension of the civil service rules. Salaries, \$900 to \$1,800. Eight hours' work. Lifetime positions with annual vacations. Ages 18 to 45.

We coach applicants to pass examinations. You can win. Write at once, stating position desired, and we will send full particulars free.

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- GENERAL EXAMINATIONS ANNOUNCED JULY 15.

PURE BRED POULTRY

ORPINGTONS.

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

BIDE-A-WEE BUFFS — EGGS FROM winners. Mating list free. Roy J. Lucas, Agra, Kan.

BUFF ORPINGTONS — SPECIAL SALE. Big reduction in price of breeding stock of my prize winners at Kansas City, St. Joseph, Topeka and Des Moines. Eggs and baby chicks. H. F. Farrar, Axtell, Kan.

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ROSE COMB REDS, COLUMBIAN WYANDOTTES, Indian Runner Ducks, Golden Seabright Bantams. Eggs for hatching. Mating list free. A. D. Willems, Minneola, Kan.

BUFF WYANDOTTES—CHOICE BREEDING stock at all times. A few bargains in males and females from our 1913 breeding pens. Must be taken soon. Wheeler & Wylie, Manhattan, Kan.

RHODE ISLAND REDS.

LARGE-BONED, DEEP RED, HIGH-scoring Rose Comb Rhode Island Reds, guaranteed. Highland Farm, Hedrick, Iowa.

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

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

LANGSHANS.

BLACK LANGSHANS—PEN, \$1.50 PER 15, \$2.75 per 30; open range, \$1 per 15, \$1.75 per 30. Good hatch guaranteed. D. W. Wolfe, Route 2, Carrollton, Mo.

DUCKS AND GESE.

INDIAN RUNNERS, FAWN AND WHITE. Eggs, \$1 per 15. Baby ducks, 25c each. J. W. Fretz, Bosworth, Mo.

When writing advertisers, please mention Kansas Farmer.

LEGHORNS

ROSE COMB BROWN LEGHORN EGGS —100, \$3.00. M. E. Hoskins, Fowler, Kan.

FOR SALE—ROSE COMB BROWN LEGHORNS, stock and eggs. Mrs. J. E. Wright, Wilmore, Kan.

EGGS FROM PURE-BRED S. C. BROWN Leghorns. \$1 for 15; \$4 for 100. H. N. Holdeman, Meade, Kan.

SINGLE COMB BROWN LEGHORNS exclusively. Choice farm stock, carefully mated. Eggs, \$3.00 per 100. Mrs. D. A. Wohler, Hillsboro, Kan.



LICE KILLER Licolil, strongest lice killing compound made. Works like magic. Simply put a few drops in nests and hang bottle in coop. Powerful evaporating vapors go into feathers, cracks and crevices. No painting, spraying or dusting. Easy to use. Circular free. Found bottle prepaid 50c. Moneyback if fails. Agents wanted W. H. Metzger Co., No. 33 Quincy, Ill.

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.

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.

POULTRY



Do not neglect the poultry houses during the hot months, and let them get full of lice and mites. After the hens have quit laying for the season we are very apt to forget their needs. While they are resting, see that their roosting place is free from the pests that bother them at night.

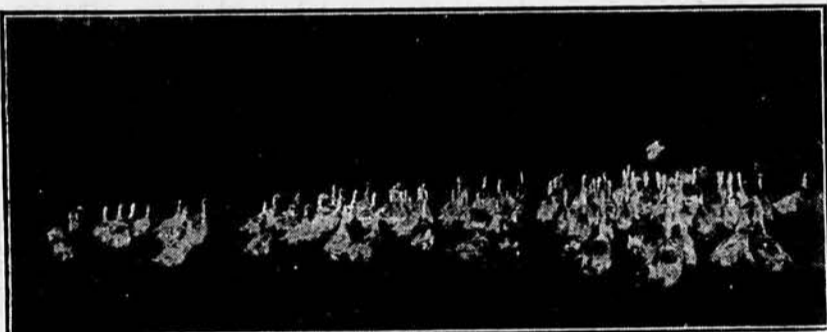
In answer to a correspondent would say, that chemically there is practically no difference in the food value of a white-shelled and brown-shelled egg. Some markets have a preference for brown eggs. The Boston market for instance, while other markets, like Philadelphia, want white eggs. It is generally conceded that those fowls laying brown-shelled eggs make the best table fowls, for, as a rule, it is the Mediterranean class that lay white-shelled eggs.

Feeding Baby Chicks.

Thousands, yes, millions of baby chickens die on the farms and in poultry yards each season. As a result, the loss in eggs and labor in hatching is tremendous. Much of this is due to improper methods of feeding and can be avoided. The newly-hatched chick is a very tender and frail little creature just after having picked its way from the shell. The comfort of the chicks, and the feed given them, are the two main things which require your most careful consideration at this time. See

chicks are at least 10 days old. After the chicks are a week old, we begin to add a little commercial chick feed to the above mixture and gradually increase this until the rolled oats and bran are eliminated from the first or grain feed. At this age we also begin to feed dry mash, the mash being made by mixing the following: One part wheat bran, one part corn meal, one part shorts, one-half part alfalfa meal, one-third part rolled oats or oatmeal. We add one-half pound of very fine salt to each 100 pounds of this mixture, and also add a handful of fine charcoal. After the chicks are two weeks old we begin to add a small quantity of dry beef scraps to the mash mixture. If the chicks are on free range, they do not need the beef scraps. After the chicks are a week old the grain mixture should be thrown into a fine clean litter, or worked into fresh soil, so the chicks will be compelled to exercise. If confined to a board or concrete floor, keep a shovel or several shovels full of clean soil on a portion of the brooder or hover floor, so the chicks may scratch in this. If the chicks can be raised at all, they will unquestionably do well on the above feed.

Some farmer may say, "I cannot afford to buy the commercial chick food nor the rolled oats." We wish to say that you can well afford to buy anything for the first few days feeding if



THIS FLOCK OF LIGHT FAWN AND WHITE INDIAN RUNNER DUCKS IS PRIDE OF MRS. E. H. MYERS, FREDONIA, KAN.

that they are comfortable; not to the extent that you nurse them, but they must be kept reasonably warm, dry and active.

Some of the mistakes in feeding are those of feeding too soon after being hatched, feeding too freely, feeding sloppy food, feeding too much corn, feeding commercial grit at the start instead of sand, feeding other ingredients which should not be used at the very beginning. These and similar mistakes tend to irritate the digestive organs and intestinal tract. Such practices often result in the chicks having diarrhea. The chicks become dumpish, get out of condition and die rapidly.

During the past two years we have tried out several methods of starting baby chicks. If you are troubled with diarrhea of any kind, or lack of vitality, or slow growth, then try the following plan. It has been one of the most successful plans of feeding baby chicks which we have ever used.

We sprinkle a little clover chaff or fine-cut straw or clean litter, free from must and mold, over the floor of the brooder or hover before the chicks are placed in it. We provide a small fountain of pure water. The chicks are not fed for 48 hours or more after they are hatched. Don't feed too soon. Give the chicks time to assimilate the yolk of the egg which contains enough food to last them several days.

Begin by feeding a mixture of two-thirds rolled oats and one-third wheat bran mixed with a small amount of charcoal. This is fed on a clean board or paper four or five times a day and only a small quantity fed at a time. We remove the feeding board after the chicks are through eating. Clean sand is given about the time the first feed is given, and no grit is given before. We think sand is better to start chicks with than commercial grit, if it can be secured, and if not, then use fine commercial grit very sparingly until the

it will insure you a greater number of strong chicks and lessen your mortality. One sack of commercial chick feed and a 25-cent box of rolled oats will start quite a large bunch of chicks. You can work gradually into the use of cracked corn, wheat and kafir after the chicks are six weeks old.

We give our young chicks all the sour milk or buttermilk they want from the time they are hatched until fully matured, if it can possibly be supplied. If you chop up a few onions occasionally for the youngsters, these are good for them, keep them in good condition, and help supply the green food. The infertile eggs may be boiled and mixed with some of the dry mash and fed to the chicks, also bread crumbs.

When the chicks have reached the age of six weeks we then place a dry mash before them composed of two parts bran, one part shorts, and one part corn meal. This is placed in a hopper. It is also a good idea to mix a little fine charcoal in this ground feed, also a half pound of fine salt to every 100 pounds of the mixture. This mash is used until they are fully matured. From the time the chicks are six weeks old until maturity, you can feed them equal parts of cracked corn and wheat, fed in hoppers. If you cannot furnish your chicks with the sour milk or buttermilk, it may be necessary for you to add one-half part of high-grade dry beef scraps to the dry mash.

Look out for lice and mites. Keep the coops, hovers and houses clean. Don't let the drinking pans go dry. Keep the chicks active and growing. There is no better place on a farm to grow them than along the edge of the corn field. Pull your coops and colony houses there this season and give it a trial. The chicks will follow the cultivators across the field, consume many injurious insects and worms, and will grow strong and husky.—Missouri Experiment Station Bulletin.

HOME CIRCLE



To save tears when peeling onions peel them with a sharp knife UNDER water.

To bleach handkerchiefs, towels, etc., soak over night in a solution of half a teaspoonful of cream tartar to each quart of water.—Montreal Star.

A nice dish cloth that will wear a good while and keep white if carefully used, is made of two salt bags sewed together.

If metal teapots are not used for some time they are apt to become musty. This may be prevented by dropping a lump of sugar into the pot before putting it away.

If your finger has become sore from constant contact with the needle when crocheting, protect the finger by slipping on a finger cut from an old pair of kid gloves. Or, put a strip of adhesive plaster around the end of the finger when working.

Save Meat Bill by Good Cooking.

One thing which puts many wrinkles on the brow of the family man, is the meat bill bobbing up every month, says Lucile Berry, of the State Agricultural College. It wouldn't be wise to abolish meat bills, for most people are healthier and happier if they eat the right amount of meat. There is an essential constituent of the diet found in meat. It is protein, without which there can be no formation of new tissue or rebuilding of worn out tissue. There are other sources of protein, which could furnish the body with this food, but people are so much in the habit of eating meat, that it would mean more than discomfort to many to even suggest using something else.

A family does not need meat at every meal though. A prominent investigator in nutrition said, in looking over statistics showing how much meat American families are eating, that those figures were a measure of American self-indulgence.

A man who is doing heavy muscular work does not need more meat in his diet than one who is not. An excess of protein in the food often causes trouble. The waste products in protein digestion are poisonous substances which must be quickly eliminated.

Care in buying meat will shrink the bill more than you think. On baking day when you have a fire in the range you can cook a cheap cut with no extra fuel. Cheaper cuts come from parts of the animal which have been most used during its life. These muscles are tough, but the meat is of better flavoring and exactly as nutritious. If you're looking for a task which will demand the strongest efforts that you can put forth, tackle a piece from the neck of the animal—a piece which has been en-

trusted to an unskilled cook. At the second bite you probably would decide that that neck had served its day of usefulness, switching flies, before the post-mortem.

ONE COOK'S RECIPE.

A tough roast in the hands of a good cook—one who understands all the shortcomings of a neck piece, is a different proposition. She might decide to have a pot roast and be truly thankful if she does, for you can't beat it. Here is her recipe:

Three lbs. beef, 1-4 lb salt pork, 1-4 cup carrot, 1-4 cup turnip, 1-4 cup celery, 1-4 cup onion, 1 tablespoonful parsley, bay leaf, cloves, salt, pepper, 2 cups water.

Wipe and dredge the meat with flour, and brown the entire surface in pork fat. Place in a kettle; surround with the vegetables, spices and water. Season, cover closely, and simmer slowly four hours, keeping the liquid below the boiling point. Remove to a hot platter. Thicken the liquid and serve with the vegetables around the meat. The sauce may be strained if desired.

EXPENSIVE FOOD NOT NEEDED.

One need not buy an expensive roast for a company dinner. You need not serve chicken or turkey. Flank steak, stuffed and baked, makes a good addition to any dinner. This is a good way to cook meat for a big dinner, for it is prepared and put in the oven before the little details of the dinner begin to press down upon the cook. Wipe the steak clean with a damp cloth. Carefully remove the skin and fat and lay it flat on a board; moisten three-fourths cup of crumbs with hot water, add one teaspoonful salt, one-fourth teaspoonful pepper, one-half an onion chopped fine, and one tablespoon chopped parsley. Spread the mixture on the meat evenly, then roll with the grain, so that when sliced it will be cut across the grain. Tie with twine, turning in the ends to make it even and shapely. Dice an onion, carrot and turnip and lay them in the baking pan.

On top of them put the roll of meat, pouring in enough water to fill the pan to the depth of one inch. Cover and place in a slow oven to cook at least three hours and longer if possible. When cooked, remove the meat and thicken the broth.

Some day, when you've become blue thinking about the high cost of living, cast off your gloomy thoughts and fix some meat balls in cabbage for dinner. These are Hamburg balls played with variations. Wash a medium sized head of cabbage. Separate the leaves and remove the center. Fasten into shape and boil until tender. When the cabbage is cooked, fill the center with Hamburg balls and surround with tomato sauce.



No. 6232—Girl's Dress. This design offers a box plaited model cut on the general square lines. At each side seam there is an under-turned box plait as well as those seen on the outside of the front and back. The low opening of the neck is trimmed with a shawl collar, very wide in the back. The bishop sleeves may be long or short. The pattern, No. 6232, is cut in sizes 4, 6, 8, 10 and 12 years. Medium size requires 2 3/4 yards of 36-inch material. Price of pattern, 10 cents.



No. 6226—Ladies' Waist. This dressy waist has a tight-fitting guimpe underneath, the front of which shows through the surplus folds of the outer waist. Fancy straps give the surplus effect. For the rest the bodice is plain, the sleeves trimmed with handsome cuffs, beneath which show the sleeves of the guimpe. The collar is also attached to the guimpe. Lawn, mull, collette, voile, messaline, crepe de chine, brocade faille and other materials are appropriate for a waist of this character. The appropriate for a waist of this character. The proper pattern, No. 6226, is cut in sizes \$4 waist pattern, No. 6226, is cut in sizes \$4 to 42 inches bust measure. Medium size requires 2 3/4 yards of 36-inch material for the waist and 1 3/4 yards of 36-inch material for the guimpe, with 1 1/2 yards of edging. This pattern can be obtained by sending 10 cents to the office of this paper.

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 200,000 readers for 4 cents a word for one week; 3 cents a word for two weeks; 15 cents a word for three weeks; 14 cents a word for four weeks. Additional weeks after four weeks, the rate is 2 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.

POSTAL CLERKS, CITY MAIL CARRIERS, wanted for parcel post. Commence \$65 month. Franklin Institute, Dept. P-85, Rochester, N. Y.

MEN AND WOMEN WANTED FOR GOVERNMENT positions. Commence \$65 to \$100 month. Thousands of appointments. Write for list of positions available. Franklin Institute, Dept. P-85, Rochester, N. Y.

FREE ILLUSTRATED BOOKLET TELLS about 200,000 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-509. No obligation. Earl Hopkins, Washington, D. C.

REAL ESTATE.

LIST YOUR TRADES—GIVE COMPLETE description first letter. Frank King, Atlanta, Kan.

BARGAIN—A NICE SMOOTH 80 ACRES of tillable land, only 7 miles from Salina; \$3,200.00. Write for list. V. E. Niquette, Salina, Kan.

160 ACRES, THREE MILES FROM EASTON; 145 plowable, lays nice, good improvements. \$9,000. Edd Searles, Easton, Leavenworth County, Kansas.

CHOICE FARMS, \$40 to \$65. WHEAT making \$0 to \$5 bushels; clover and timothy, tons; alfalfa, 4. Byrd H. Clark, Erie, Kan.

FOR SALE BY OWNER—600 ACRES North Texas land, 4 miles from heart of city, 2 miles from street car line. C. H. Thompson, Box 243, Wichita Falls, Texas.

WIDOW MUST SELL 400 ACRES, including 40 choice Holstein cows, all crops, 100 acres valuable timber, modern buildings worth \$7,000; running water. Price, \$19,000. Easy terms. Free catalog. C. J. Ellis, Farmers Bank, Springville, N. Y.

FARMS WANTED—WE HAVE DIRECT buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 43 Palace Bldg., Minneapolis, Minn.

DAIRY FARMS IN CENTRAL WISCONSIN, the best dairy section in America. Good crops every year. We sell all sizes of farms with and without stock and machinery, also unimproved land. Write for list. A. Kleinheins & Son, Marshfield, Wis.

FOR SALE OR TRADE—BEST HARDWARE proposition in Middle West. Corner location, town 25,000; long lease. Sell all or part to experienced man with position. Would take half value in Kansas land. Address Dept. A, Kansas Farmer.

1,040 FINE STOCK RANCH, WELL improved, 8-room house, barns, etc., two cellars, well, good water, cistern, orchard, 35 bluestem, 65 alfalfa, 100 cultivated, 500 under ditch, 1 mile to school, 1/2 post office, on telephone line, outside range, only \$25 per acre. Clear income wanted or general merchandise up to \$10,000. W. H. Allison, Rye, Pueblo Co., Colo.

AUTOMOBILES.

ARE YOU IN THE MARKET FOR AN automobile? We can sell you good used cars cheaper than anyone in the West. Write for our list of bargains. Prices from \$200 to \$1,500. Mid West Sales Co., Dept. A, 1820-22 Grand Ave., Kansas City, Mo.

THE STRAY LIST

TAKEN UP—BY W. E. KIRBY, OF Saline Township, Sheridan County, Kansas. Address, Hoxie. One bay mare mule, eight years old, slight wire cut on right front foot, mark of fistula on top of neck, small white spot on left hip. Said stray taken up on the 10th May, 1913. Valued at \$100 by taker up.

MEETING OF KANSAS GRAIN GRADING COMMISSION.

Notice is hereby given that under the provisions of Chapter 222 the Board of Grain Grading Commission will meet at the office of the Governor in Topeka, on the 29th day of July, 1913, and establish the grades of grain to be known as Kansas grades; to be in effect on and after the first day of August, 1913.

T. RODGERS
THOMAS PAGE
J. G. MAXWELL, Secretary,
Grain Grading Commission.

DAISY FLY KILLER



place anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all seasons. Made of metal, can't melt or warp; will not soil or injure anything. Guaranteed effective. Sold by dealers, or 6 cents by express—paid for \$1.

HAROLD SCHMIDT, 180 DeKalb Ave., Brooklyn, N. Y.

ORGANS, \$15 to \$30. Highest Grade

Estey, Hason & Hamlin, Story & Clark, Kimball—C. Cottage & Co., slightly used; like new. Write today. Jenkins Sons Music Co., Kansas City, Mo. Reference, any bank in Kansas City.

FREE Particulars regarding the most delightful preparation for cleansing the hair and scalp. Saves time and labor. Write Curtis Specialty Co., Dept. A, Aurora, Ill.

FILMS DEVELOPED, 10 CENTS. Any size, 6 or 12 exposure. Printing prices low. Send for sample print, price list and special coupons.

BEST PHOTO CO., Topeka, Kansas.

CATTLE.

A FEW HIGH-GRADE HEIFER CALVES two to four weeks old, \$15 each. Burr Oak Farm, Whitewater, Wis.

FOR SALE—REGISTERED YEARLING Holstein bull. E. J. Castillo, Independence, Kan.

WELL BRED GRADE HOLSTEIN BULL calves crated at \$20 per head while they last. Arnold & Brady, Manhattan, Kan.

SOME CHOICE JERSEY BULLS THAT must be sold quick. Two nearly ready for service. Chester Thomas, Waterville, Kan.

REGISTERED HOLSTEIN HERD—BULL and bull calves of choice breeding. Price reasonable. Carl Snyder, Route 7, Topeka, Kan.

FOR SALE—32 HEAD HOLSTEINS, Shorthorns and Jerseys, all bred from winter cows. Good young stock. Owned by dairymen going out of business. Sell all for \$60 a head. Jack Hammel, 215 Adams St., Topeka, Kan.

CATTLE FOR SALE—WE HAVE SEVERAL thousand head of southern cattle on our ranch here for sale at right prices, all above the quarantine line and can be shipped to any points without delay or dipping. Will sell in single car lots or more, any class or age, at the following prices: Cows, \$26 per head; 1 and 2-year-old heifers, \$22.50; 3-year-old steers, \$21.00; 1 and 2-year-old steers, \$23. We must sell the larger part of these cattle this month, as we have more cattle than grass and the dry weather has cut us short on feed. Can show cattle in a short ride from station and will meet buyers at station any time. The above prices are loaded on the cars, no other expense. Write or wire us. Miller Brothers, Bliss, Okla.

HORSES AND MULES

FOR SALE OR EXCHANGE—YEARLING mammoth jack, good individual, heavy bone, long ears, black with mealy points. Price, \$200. Matt & Kohler, Herington, Kan.

HOGS.

WELL-BRED REGISTERED HAMPSHIRE pigs. Homer Bales, Eudora, Kan.

REGISTERED TAMWORTH PIGS, immunized from cholera, two months old, \$10.50. Howard Pendleton, Yukon, Okla.

BEE SUPPLIES.

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

DOGS.

FOR SALE—SCOTCH COLLIE PUPS. Sable and White stock farm. U. A. Gore, Seward, Kan.

SEEDS AND PLANTS.

ALFALFA—SAMPLES AND PRICES OF native grown non-irrigated "Acorn Brand" alfalfa seed. Ross Bros. Seed House, 300 E. Douglas, Wichita, Kan.

PATENTS

SEND FOR FREE BOOKLET, ALL about patents and their cost. Shepherd & Campbell, Patent Attorneys, 500-E Victor Bldg., Washington, D. C.

YOUNG MAN

YOUNG MAN, WOULD YOU ACCEPT and wear a fine tailor-made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use \$5 a day for a little spare time? Perhaps we can offer you a steady job. Write at once and get beautiful samples, styles and this wonderful offer. Banner Tailoring Co., Dept. 356, Chicago.

MISCELLANEOUS.

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 Director. Excellent new chapel. Best attention. Topeka, Kan.

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

WANTED—TO HEAR FROM OWNER who has good farm for sale. Send description and price. Northwestern Business Agency, Minneapolis, Minn.

THE ANDERSON LOADER LOADS MANURE, cornstalks, stack bottoms, dirt, gravel, sand. No hard work. Write Anderson Mfg. Co., Osage City, Kan.

WAGONS, BUGGIES AND FARM IMPLEMENTS at reduced prices; poles, shafts, wheels and supplies at half price. Write us your wants. Vehicle Hospital, 413 Delaware, Kansas City, Mo.

A GOOD THRESHING OUTFIT TO trade for land. Also some nice irrigated land in the Laramie Valley, Wyoming, to trade for land in Western Kansas. W. J. Trousdale, Newton, Kan.

SUN CURED GROUND ROCK PHOSPHATE, the cheapest source of phosphorus in a system of permanent agriculture, containing 250 pounds phosphorus to the ton, delivered in Eastern Kansas for \$8 to \$10 per ton in car loads of 22 1/2 tons each. Further particulars free. Central Phosphate Co., Mt. Pleasant, Tenn.

Can make 100 miles an hour Yet safe in hands of 10 year boy

The Excelsior, the fastest and most powerful of motorcycles, is far the *easiest controlled*. Your hands never leave the handle bars. The clutch is controlled by the left-hand grip, the throttle by the right. The most powerful motorcycle engine ever made—obeys your slightest touch. Every Excelsior victory is made with a motor of this *regular stock design*. You need never take the dust of any machine, on two wheels or four, riding on an

Best at Portland, Ore. Races, June 9, 1913

Excelsior won six firsts and one second out of seven events. An Excelsior four-horsepower single, which had run 60,000 miles in daily service, made five miles in five minutes flat—fastest time in its class.

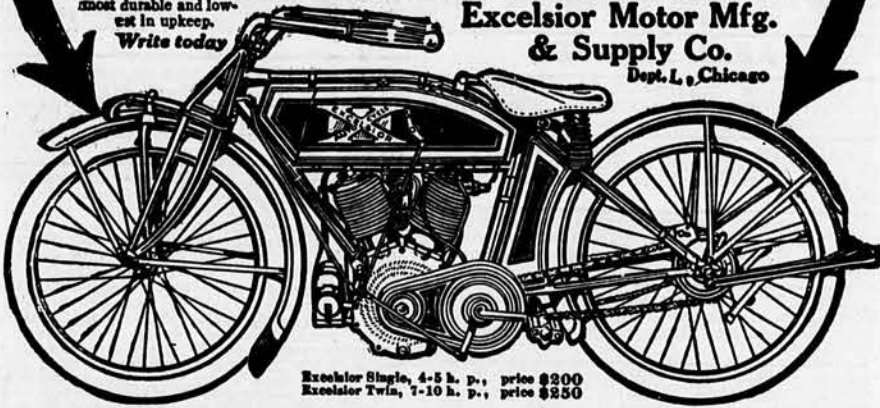
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The Excelsior lasts for years. The machines of pioneer days still give good service. Its remarkable strength and endurance is proved in its racing triumphs. Exclusive Excelsior features such as the shock-absorbent and Dealer's Name. Learn all the facts about the Excelsior—how it is fastest, easiest riding, safest, most durable and lowest in upkeep. **Write today**

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Goodyear Wing Tires Save Money and Trouble. Easiest Riding! Insure Longest Carriage Service.

The secret of the remarkable durability of these tires lies in the patented wing. It preserves the base. The wing extension prevents mud, grit and water from entering, which would cut, grind, loosen and destroy the base. Those are the troubles bought with ordinary carriage tires. That's why they are expensive and unsatisfactory. That is impossible with Goodyear Wing Tires. The base remains sound. The tire stays on—gives long

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An improved cushion tire—superior to any other. The retaining wire hole below the center allows 50 per cent more wearing depth—wears that much longer—saves you that in money. And it absolutely prevents the tire from coming off the rim. The hole being below the center, does not crack out. The tire stays firm in channel. High grade, resilient rubber assures comfortable riding and saves the carriage—assures you perfect satisfaction. Our latest carriage tire book sent free. Gives full information. (1225)

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We will send KANSAS FARMER on trial 10 weeks for 10 cents. Could you do five of your friends a greater favor than to introduce them to KANSAS FARMER by sending it to him for 10 weeks? To anyone sending us five trial subscriptions we will send, free, one of our three-page wall charts, containing a large map of Kansas, the United States, World, Insular possessions, a fine new map of the Panama Canal, and hundreds of statistical facts of interest, last census of cities, towns, countries, etc. Send us your club today.

KANSAS FARMER, Topeka, Kan.

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.

WANTED—TO BUY THREE GENTLE Shetland ponies. Must be sound and young and weigh between 300 and 600. Send photo if you have it. Address P. O. Box 32, Topeka, Kan.

GOOD PAY AND PERMANENT BUSINESS connection for one man in each county in Kansas, Nebraska and Oklahoma to look after established business. \$25 or better per week at start can be made, working small towns and rural routes. Good chance for rapid advance in earnings. Complete outfit free and credit given. Previous experience unnecessary. Write at once. Fireside Sales Co., 623 Jackson St., Topeka, Kan.

3 MACHINES IN 1

A perfect seed bed is as important as to sow or plant. The Western Pulverizer, Packer and Mulcher makes a perfect seed bed and leaves a loose mulch on top to retain the moisture in one operation. It will double profits on crops. Made in 8 sizes, 1 and 3 sections. Sold direct to you on one year's trial. Prices, \$22.00 and up.



We want every farmer and landowner to have our illustrated circular. It describes the machine, its principle and advantages over all others. It gives testimonials from many farmers proving what it will do on wheat, alfalfa and other crops. It contains valuable information on how to prepare the soil for better results. Send for this circular today, whether you want to buy or not.

WESTERN LAND ROLLER CO. Box 205 Hastings, Nebr.
LEARN HOW TO RUN AN AUTO. ADEL's Answers on Automobiles will teach all about Carburetors, Ignition, Timing, Engine Troubles, Overhauling and Driving. A complete course of 500 pages with 375 diagrams highly endorsed by men who know. \$1.50 to any address. Money back if not pleased. Chas Clark Co., 334 Kansas Ave., Topeka, Kan.

The GRANGE

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

A correspondent in an exchange writes: "For 40 years the Grange discussed and for 27 years it worked for the direct election of senators, but at last the desired result came and the Grange deserves much of the credit therefor."

Granges in other states are much interested in the so-called Juvenile Grange for the young people. The advantages accruing from such organization are numerous and these have been set forth for KANSAS FARMER readers in an article by Harriett M. Dickson, superintendent of Juvenile Granges in Ohio. This article will be published in these columns.

Berryton Grange, Shawnee County, is making progress on its new Grange hall. A beautiful wooded location has been bought and paid for. Some building material, sand and stone, are on the ground. At a recent meeting plans for the hall were considered. However, the plans have not yet been definitely decided upon. Berryton Grange has in mind something new in the way of a Grange home. It is altogether likely that the final plans will resolve into a round building. The structure will be fire-proof.

Coffey County Granges Select a City Adviser.

The press is commenting upon the new departure at Burlington, Kansas, where the Coffey County Pomona Grange has chosen a city adviser. The Burlington Commercial Club promptly made him

an honorary member of that body. To get the farmers and townspeople together so that they will co-operate in matters of mutual interest is the aim. Some suggest that farmers should become regular members of the commercial clubs. Some towns have already opened their membership for that. However, it is a question whether Coffey County has not hit the right solution of the matter. The people of the town and of the country are one after all. One of the principal hindrances to good being reached in this rural reform discussion is that it has tended to point out a separation between the rural and the urban residents. In Burlington there is a great deal of the spirit of unity and mutual sympathy between the two. They organized in connection with these Granges a Farmers' Supply Company recently. The writer was agreeably impressed with the kindly spirit of the whole community in the projecting of this new enterprise. Four very capable and loyally efficient men were chosen as officers of this company, and capital was subscribed sufficient to make a good business. The tired and retired members of the order did not seem to reside in Coffey County, for they were an active body, ready to do things in the line of co-operation. It is my conviction that we shall hear from these Burlington co-operators, and that as a part of the Kansas Grange they make a live spot in the order's work. This mutual interest as indicated by selection of city adviser will lead to a greater Burlington from a business standpoint. I am sure it will pay in dollars and cents, and I know it has and will in feelings. There is no limit to the progress of a perfectly united community. Here's to Burlington and success in trying this out. Couldn't select a better town for the job. —ALFRED DOCKING.

Some time ago a prominent educator began talking to us about the Grange and said, "For quite a while I have been studying and reading of the Grange and its work, and I find it has the habit of being on the right side of public questions." This is one of the "habits" that has made the Grange a great and useful organization.

Summer Orchard Pruning

By GEO. O. GREENE, Horticulturalist, K. S. A. C.

SOME one has defined pruning, as confined to orchard fruits, as a system of training whereby the fruit grower aims to secure throughout the branches and limbs of the tree a nice succession of sun and shadow with branch, twig and leaf so arranged that there may be a free passage of air throughout the tree at all times. To accomplish these objects, the fruit grower must nicely arrange, first, in his mind's eye, each branch and twig in such a manner that, while there is a perfect succession of sun and shadow, there will be no time during our hot summer days when the sun can shine on any one limb long enough to cause that questionable malady known as "sunscald."

Sunscald is possible but there is so little injury from this cause in Kansas as compared with the canker producing disease gaining foothold in dense headed apple trees that we may well discard our, almost inherited, horror of sunscald. Contrary to the popular belief, there is more sunscald in Massachusetts than in Kansas.

The practice of summer pruning seems to be growing in favor among Western fruit farmers. It has some advantages and some disadvantages. Some orchardists say they get fewer watersprouts as a result of summer pruning than they do from pruning in winter and that they are better able to stimulate weak growth into strong growth and thus better balance their trees. Most growers have less fear of opening up the trees too much to the sun if they prune while the trees are in leaf. The shade producing leaves are there and the man with only slight amount of experience can see what he is doing. Some growers prefer to prune in summer because they say they have not sufficient time to systematically thin the fruit. It can be done more quickly and perhaps more economically with the pruning saw. On the farm, summer pruning is often

impossible because of a rush of other work. The pruning of the orchard must be done, if at all, during the slack months in the winter. After a little practice and experience one learns the habits of growth of the different varieties of trees in the orchard and is soon able to prune quite as well in the winter as in the summer. A little summer pruning can be done on the busiest farm if one is interested in the trees. A branch headed in here and there and a bad fork stopped in the making may save a good tree ten years from now.

There is considerable summer pruning to be done in Kansas this year. It is feared that much of it will not be done. This is partly due to a lack of knowledge and partly due to absolute neglect. In those sections of the state where peach trees are grown and where no crop will be gathered this year, the peach trees should be topped back. The amount of this topping in, depends somewhat on how early we can get at the job. Later pruning should be lighter than that done during the early spring months. Peach trees should have a chance to develop new wood. The strong, young shoots will invigorate the trees. Their general health will be better and will live longer. Fruit is grown on new wood of last year's growth.

Young apple trees which are beginning to lean toward the north may be trained back towards the south better during the summer months. Those long poles growing up straight, which will later pull the tree to the north, need to be headed in to a thrifty side shoot as should the branches on the north and east sides that are growing away from similar limbs coming out from the south and west sides of the tree. Brush and watersprouts on the interior of the tree robbing useful limbs of just that amount of plant food need to be removed. Much of the apple blotch and canker may be prevented by eliminating dense growths of brush in the center of the tree.

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.
Holstein Friesians.
Oct. 21-22, 1913—Woodlawn Farm, Sterling, Ill.
Jersey Cattle.
Nov. 6—Alvey Bros., Meriden, Kan. Sale at Topeka, Kan.

Poland Chinas.
Sept. 12—L. R. McClarnon, Braddyville, Ia.
Oct. 4—Frank Michael, Erie, Kan.
Oct. 3—Cline & Nash, Iola, Kan.
Oct. 9—J. L. Griffiths, Riley, Kan.
Oct. 11—Wigstone Bros., Stanton, Iowa.
Oct. 11—D. S. Moore, Mercer, Mo. Sale at Lineville, Iowa.

Freeman & Russ, Kearney, Mo.
Oct. 16—Roy Johnston, South Mound, Kan.
Oct. 20—L. V. O'Keefe, Stillwell, Kan.
Oct. 21—H. B. Walter, Effingham, Kan.
Oct. 21—P. M. Anderson, Lathrop, Mo.
Oct. 22—H. C. Graner, Lancaster, Kan.
Oct. 23—J. H. Baker & Son, Eustice, Mo.
Oct. 24—A. J. Peckham, Lawrence, Kan.
Oct. 24—A. J. Swingle, Leonardville, Kan.
Oct. 24—A. B. Garrison & Sons, Summerfield, Kan.

J. W. Leeper, Norton, Kan.
Oct. 25—M. T. Williams, Valley Falls, Kan.
Oct. 29—Walter Hildwein, Fairview, Kan.
Oct. 30—Hubert J. Griffiths, Clay Center, Kan.
Nov. 3—Joe Schneider, Nortonville, Kan.
Nov. 5—R. B. Davis, Hiawatha, Kan.
Nov. 6—A. R. Reystead, Mankato, Kan.
Nov. 7—U. S. Byrne, Saxton, Mo.
Nov. 8—T. M. Wilson, Lebanon, Kan.
Nov. 12—W. E. Harter, Westmoreland, Kan.
Nov. 14—W. E. Dubois, Agra, Kan.
Nov. 15—John Kemmerer, Mankato, Kan.
Nov. 20, 1914—Roy Johnston, South Mound, Kan.

J. J. Hartman, Elmo, Dickinson, Kan.
Feb. 7—Wigstone Bros., Stanton, Iowa.
Feb. 10—H. B. Walter, Effingham, Kan.
Feb. 11—H. C. Graner, Lancaster, Kan.
Feb. 11—H. L. Faulkner, Jamesport, Mo.
Feb. 26—V. E. Carlson, Formoso, Kan.
Feb. 28—A. R. Reystead, Mankato, Kan.
Feb. 13—J. E. Willis, Prairie View, Kan.
Feb. 14—F. Foley, Oronoque, Kan. Sale at Norton, Kan.
Feb. 17—L. E. Klein, Zeandale, Kan.
Feb. 18—J. H. Harter, Westmoreland, Kan. Sale at Manhattan.
Feb. 19—J. L. Griffiths, Riley, Kan.

Duroc Jerseys.
Aug. 29—Jeff Constant & Son, Denver, Mo.
Oct. 17—Moser & Fitzwater, Goff, Kan.
Oct. 28—R. P. Wells, Formoso, Kan.
Oct. 31—A. M. Rinehart & Son, Smith Center, Kan.
Nov. 1—N. B. Price, Mankato, Kan.
Nov. 4—E. S. Davis, Meriden, Kan.
Nov. 4—Jeff Constant & Son, Denver, Mo.
Nov. 7—Leon Carter, Asherville, Kan.
Nov. 8—E. C. Jonagan, Albany, Mo.
Nov. 8—C. C. Thomas, Webber, Neb. Sale at Superior, Neb.

R. F. Wells, Formoso, Kan.
Jan. 26—R. F. Wells, Republic, Kan.
Jan. 27—Ward Bros., Republic, Kan.
Jan. 28—W. E. Monasmith, Formoso, Kan.
Jan. 29—N. B. Price, Mankato, Kan.
Feb. 4—Moser & Fitzwater, Goff, Kan.
Feb. 5—Samuelson Bros., Cleburne, Kan.
Feb. 6—Leon Carter, Asherville, Kan.
Feb. 7—Horton & Hale, DeKalb, Mo. Sale at Rushville, Mo.
Feb. 7—E. G. Munsel, Herington, Kan.
Feb. 3—Howell Bros., Herkimer, Marshall County, Kan.
Feb. 10—Kansas Agricultural College, Manhattan, Kan.
Feb. 11—Thompson Bros., Garrison, Kan.
Feb. 12—J. A. Porterfield, Jamesport, Mo.
Feb. 20—John Emligh, Formoso, Kan.
Feb. 21—Dana D. Shuck, Burr Oak, Kan.

Chester White and O. I. C.
Oct. 14—George E. Norman & Sons, Newtown, Mo.
Oct. 16—J. S. Kennedy, Blockton, Iowa.
Nov. 6—Alvey Bros., Meriden, Kan. Sale at Topeka, Kan.
Nov. 18—J. D. Billings, Grantville, Kan.

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

Fall Boars and Gilts.
A. L. Albright, Waterville, Kan., offers 40 fall boars and gilts at current prices. Mr. Albright feeds for the best results and never ships a cull. Write him.
Harter Has Fall Boars.
If you need a first-class fall boar, write J. H. Harter, Westmoreland, Kan. Just ask Mr. Harter to pick you out a good one. He knows the good ones and his prices are reasonable.
Dreamland Colonel Durocs.
Why not buy a fall boar sired by the great Dreamland Colonel? Write before they are all gone. Leon Carter, Asherville, Kan., has them.
Manhattan Holsteins.
If in the market for Holsteins, write Arnold & Brady, Manhattan, Kan. They have all kinds and at prices within the reach of every farmer.
Tripp for Boars.
F. A. Tripp & Sons, Meriden, Kan., offer some choice fall boars. They have unusual quality and measure up to the standard. Low prices are being made for a short time. Write them.
Offers Spring Pigs.
L. L. Clark, Meriden, Kan., offers spring pigs 100 days old at \$25 each, with pairs at \$40. Expressage is low on pigs of this size, and the price asked is a mere trifle for the kind Mr. Clark breeds.
Shields's Polands.
M. T. Shields, Poland China breeder, Lebanon, Kan., has about 75 good spring pigs sired by Logan Chief by Chief Logan, with some by a son of Oak Hill Chief. Mr. Shields has a herd of extra big sows and the pigs show care.
The W. C. Shinn Company, Lincoln, Neb., manufacturers of copper cable lightning rods, are sending us very interesting material along the lightning rod line. Anyone interested in it should write to this company for information on the subject. This company guarantees Shinn lightning rods to give entire satisfaction.

Amcoats Offers Fall Boars.
S. B. Amcoats offers for sale a half dozen choice fall boars sired by his big boar, a son of Big Orange. These boars are ready for hard service, are immune, and will be priced very low in order to sell them quickly.

Klein Feels Fine.
L. E. Klein reports the best crop prospect ever in the history of his operations as a farmer. The pigs never were better and the demand promises to be strong. Mr. Klein is one of the successful breeders. He has a fine lot of stock and will soon start a card in Kansas Farmer.

Hunt's Durocs.
J. O. Hunt, the veteran Duroc Jersey breeder of Marysville, Kan., has about 60 good spring pigs, and will offer them for sale privately a little later. Mr. Hunt is one of the oldest and most successful breeders in the state and always has some good ones for both his old and new customers.

Phillips's Durocs.
George Phillip, Duroc Jersey breeder of Lebanon, Kan., has his usual number of good pigs. They were sired by Red Ruler and King of Model Hero and out of big sows sired by such boars as Model H. Watch these columns for more about this good herd.

Fulcomer's Shetland Ponies.
One of the finest Shetland pony yards to be found in the state is the Excelsior herd located at Belleville, Kan. The proprietor of this herd, W. M. Fulcomer, is one of the best posted and most enthusiastic pony breeders now in the business. The herd numbers 25 or 30 head, including several imported animals, many being choice spotted individuals. If in the market for ponies, write Mr. Fulcomer at once, mentioning Kansas Farmer.

Howell Bros. Offer Herefords.
Howell Bros., Herkimer, Kan., change their ad this week and offer choice richly bred registered Hereford bulls in age from 8 to 15 months. These bulls are fine individuals. They are sired by the big ton herd bull, Clark, son of Constantine 154809. They are well marked and are out of cows rich in the blood of old Anxiety 4th. There are half a dozen of them and, considering their quality, they are being priced very low.

A letter just received from Paul E. Harworth, Poland China breeder at Lawrence, Kan., reads: "For heaven's sake take out my advertisement at once. I am completely sold out of everything I had to sell and the postman is kicking about having to bring so many letters, and every one of these letters is either inquiring for pigs by Advance 60548 or telling how pleased they are with their pigs by him. I am booking orders for next fall pigs."

Colonel Brennen Busy.
Col. John Brennen, the veteran auctioneer, Esbon, Kan., is busy looking after his big farm and booking dates for the coming fall and winter sales. Colonel Brennen has been in the auction business at his present location for nearly 30 years and says the past year's prices are the best he ever saw. He looks for unusually good prices this year and predicts a great shortage in meat-producing animals of all kinds.

Some Bargains in Horses and Jacks.
"Our prices right," reads the ad of Fisher & Walker, Evansville, Ind., now selling horses and jacks at their branch barn at Ellsworth, Kan. This is surely a good place to get bargains, and they further say, "Your time to suit." We want to call the attention of our readers in need of this class of live stock to this offering, and ask them to write to this firm. All their stock is guaranteed as represented, and their references are of the very best.

Howell Bros., breeders of Duroc Jersey swine at Herkimer, Kan., write: "We beg to acknowledge receipt of your favor of recent date, in which you advise us of the expiration of our advertising contract. We wish to say that we desire to continue using space in your paper. It is with pleasure we state that our advertising in Kansas Farmer has been very satisfactory to us, having brought us a large number of inquiries from which we were able to sell all of our surplus stock. We are entirely sold out of Durocs at this time, and we will therefore use our space for our Hereford cattle."

Formoso Stock Show.
R. P. Wells, well known Duroc breeder of Formoso, Kan., writes us that the stockmen of his locality have decided to hold a stock show this fall. The dates are September 18 and 19. The town is putting up something like \$500 for expenses and prizes. The superintendents selected are as follows: Beef cattle, A. M. Clark; dairy cattle, H. E. Thornburg; horses, Neal McCune; swine, R. P. Wells; poultry, V. E. Carlson; agricultural exhibits, A. W. Cunningham.

Miller's Durocs.
R. R. Miller, Duroc Jersey breeder of Clay Center, Kan., has a fine lot of spring pigs sired by the herd boar Blue Rapids Colonel 2d by Blue Rapids Colonel, he by Colonel C. with one litter by Crimson Prince out of a sow of Top Notcher breeding. Mr. Miller also has a nice lot of fall gilts by Blue Rapids Colonel. He is breeding these gilts to his new boar, Miller's Advancer, bred by T. P. Teagarden, of Wayne, Kan. This boar is sired by Royal Advancer with a dam by T. P.'s Wonder, a son of old Kansas Wonder. Mr. Miller is located about two miles from town. He is growing the pigs in good shape and will start a card soon.

J. E. Simpson's Chester Whites.
J. E. Simpson, Sheridan, Mo., owner of one of the extra fine herds of Chester White hogs, reports spring pigs doing fine. This fine lot of pigs was sired by Mr. Simpson's great herd boar, Teddy, \$0505 by Fair Boy. His dam was Julia by Coon's Best out of Mollie 3d. Mr. Simpson has an extra good herd of sows. Among them is the show sow, Julia, by Coon's Best, out of Mollie 3d. This sow has a great litter this year. In fact the spring pigs of the herd are an extra lot, and Mr. Simpson will have a great offering for the fall trade.

Polands at Agra, Kan.
W. C. Dubois, Agra, Kan., has one of the best herds of big-type Poland Chinas to be found anywhere in the territory. His herd boar, Phillips County Long King, is a boar of immense size, extra heavy bone, with strong back. He was sired by Longfellow King by old Long King. The spring pigs are sired by this boar with the exception of those out of sows sired by him. These are out of the young boar, Nebraska Ideal, by Ideal, he by old Expansion. There are about 65 of the spring pigs. Their dams are large smooth-type sows, many of them by Phillips County Long King. Others are by Nebraska Chief and Prince Wonder, one of the biggest boars ever owned in Kansas. Mr. Dubois is meeting with success and announces a public sale for November 14. Re-

member the date and write any time for information about the hogs.

Col. Jesse Howell.
The accompanying cut is from a photo of Col. Jesse Howell, live stock and general auctioneer located at Herkimer, Marshall County, Kansas. Colonel Howell has the



natural ability, energy and intelligence to become one of the leading live stock salesmen of America. He was born on a Marshall County farm, and since leaving school has spent his entire time handling live stock. Colonel Howell is one of the best informed young men the writer ever talked with, and on many subjects has forgotten more than many older men ever know. He is a member of the firm of Howell Bros., breeders of Herefords and Durocs, and with his brother manages a big 800-acre ranch. There is system employed on this farm. The work is divided as a matter of convenience, the care of the stock going to Jesse, in which department he has demonstrated his splendid ability as a stockman. He is the kind of young man who makes a success of about all he tackles. He is making fine headway in the auction business, although he has been at it but a short time. With his natural ability and acquired training Colonel Howell combines the strictest honesty. His frank open manner carries conviction both in private conversation and in his public work. Remember him when you need an auctioneer or an assistant.

I. G. Taylor's Mammoth Polands.
Twenty-one years as a constructive breeder of Poland China hogs, exercising every care in mating that would tend to produce hogs with great size and great quality is the record of I. G. Taylor, Cameron, Mo., and has resulted in developing one of the great herds of big-type Polands in the corn belt. Few herds in existence today have the combined size and quality to be found in Mr. Taylor's herd. The sow herd is one of the extra good ones now assembled, and almost without exception they are daughters and granddaughters of the greatest sires of the breed. Among



Six-Month-Old Pig Raised by I. G. Taylor.

them are found daughters of Long Price 3d, Expansion, Jumbo, Monarch, Big Ben, Mow's Special, Ideal Jumbo 2d, and other sires with great records. Long Price 3d by Long Price 2d by Long Price, dam Miss Longfellow, is one of the only great individual, but he is a breeder that is making a great record. Major Long Price, a yearling sired by Long Price 3d and out of Mow's Choice, one of the best sows ever produced in the Peter Mow herd, is also in service in the herd. This boar is a great yearling. He is one of the big ones and has lots of quality, and litters sired by him are the very best big-type Poland pigs the writer has seen this year. Mow's Special by Mow's Jumbo is another great young boar in service in the herd. Mr. Taylor will be ready for the fall trade with one of the best lots of spring pigs that will be offered this year, and will also have a number of outstanding yearling boars. His offering was sired by such boars as Long Price 3d, Big Ben, Prince Monarch, Expansion's Special, Major Long Price, and Spotted Orange by Big Orange. This is surely a great line of big-type breeding. Watch for his announcement.

Howell Bros.' Durocs.
Howell Bros., the progressive Duroc Jersey breeders at Herkimer, about eight miles northwest of Marysville, Kan., have about 130 spring pigs and a large number of sows to farrow during the summer and early fall. The spring pigs are mostly sired by the extra good breeding boar, Joe's Pride, a son of Joe, the World's Fair prize winner. There are on the farm about 50 brood sows and fall gilts. The brood sow herd is especially strong, being composed of sows of large and uniform type. They always bring extra large litters and are good mothers. In breeding they are largely of the old Oom Paul and Buddy K 4th blood. Nearly all of them were produced right on the farm and show that a master hand was employed in making the matings and developing the produce. The brothers will hold a bred sow sale February 3 on the farm. When in the market for anything in the Duroc line, apply here. You are assured a square deal and your money's worth with every purchase.

Willifoug Offers 200 Polands.
This week we start advertising for J. D. Willifoug, a Poland China breeder at Zeandale, Kan., about 10 miles east of Manhattan. Mr. Willifoug is the oldest Poland China breeder in this part of the state, and has bred registered Poland Chinas most of his time for 25 years. In order to supply all kinds of customers he maintains two separate types of hogs on the farm; the strictly big type and the medium. He is perhaps the only Kansas breeder taking the trouble to do this. His present herd boar is Big Mogul, a very large boar sired by Harter's Mogul Monarch and out of Big Lucy, Mr. Harter's best sow. The other boar was bred by one of the big medium type. Quite a lot of the best sows in the herd were sired by Big Mogul and out of Expansion Wonder, a daughter of old Expansion. These sows are very large and all of them bring big litters. The herd at this time numbers 225, about 135 being spring pigs by the boars mentioned; about 35 tried sows; 20 fall gilts, and a half dozen selected fall boars, any or all of which are for sale. Mr. Willifoug does not hold public sales, but he can sell them cheaper and more satisfactorily at private treaty. Mr. Willifoug culls very closely, and during the past 17 years has shipped 14 carloads of hogs to the Kansas City market, and has with very few exceptions topped the market. Write him for anything in the shape of Poland Chinas, and mention Kansas Farmer.

RED POLLED CATTLE

AULD BROTHERS Red Polled Cattle
Bull calves for sale. Prices 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.

RED POLLS FOR SALE.
In order to reduce the size of herd we offer choice registered cows of large frame and splendid milkers at very low prices considering quality.
RESEB & WAGNER, Bigelow, Kan.

JERSEY CATTLE.

They Keep It Up
There are some cattle that give more milk when they are fresh than a Jersey, but there isn't any breed that gives as rich milk as
The Jersey
at a small feeding cost, nor is there any breed of cattle that will keep it up like Jerseys will, year in and year out. That's why you ought to buy Jerseys to increase your herd's efficiency. Send for Jersey facts.
AMERICAN JERSEY CATTLE CLUB
314 W. 23d St., New York

Register of Merit Jerseys

The only herd in Kansas making and keeping official records. Eighty head to select from. Cows in milk, bred heifers, heifer calves, and the finest lot of young bulls ever on the farm. All ages. Six or eight now ready for service out of cows with official tests up to 512 pounds of butter with first calf, sons of Imp. Oakland Sultan, Gambos Knight, and a son of Golden Fern's Lad. Tuberculin tested and fully guaranteed. E. J. LINSKOTT, Holton, Kansas.

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.

JERSEYS MUST BE SOLD SOON.
Fifty cows, heifers and young bulls, all registered. If this fine lot of cattle is not sold within a short time I will call a public sale. Watch for announcement.
S. S. SMITH, Clay Center, Kansas.

REGISTERED JERSEY BULL CALVES FOR SALE.

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

WINELAND FARM JERSEYS.

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

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

HEREFORD CATTLE

HEREFORD BULLS FOR SALE.
Choice lot, 8 to 15 months old, registered and well grown. Sired by the ton bull, Clark 238402. Out of large cows, rich in Anxiety 4th blood. Prices reasonable. Also Duroc Spring Pigs.
HOWELL BROS., Herkimer, Kan.

SHORTHORN CATTLE

10 SHORTHORN 10 BULLS 10
Sired by Double Champion and White Mystery, out of my best cows, priced reasonable.
ED GREEN, HOWARD, KAN.

OXFORD DOWN SHEEP

Largest flock west of Mississippi River. Fifty rams, 100 ewes for sale. All stock sired by imported rams. 140 ribbons at the Iowa State Fair in last eight years. Call on or address, John Graham & Son, Eldora, Ia.
OXFORD DOWN SHEEP.
Oxford Down Sheep—Large, hardy, prolific, well covered.
J. H. WALKER, Lathrop, Missouri.

POLLED DURHAM CATTLE

ROAN HERO, THE INTERNATIONAL CHAMPION, AND ARCAZIA PRINCEX 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.

MULE FOOT HOGS

350 big-type Mulefoot hogs of all ages for sale, from champion herd of America.
JOHN DUNLAP, Williamsport, Ohio.

POLAND CHINAS

WRAY & SON'S BIG TYPE POLAND CHINAS

Herd headed by Sterling Prince, one of the largest and best 2-year-old boars of the breed. Assisted by Chief Price's Wonder, one of the best sons of the great breeding boar, Chief Price Again. Young stock for sale. Better than your grandpa ever raised.

FALL BOARS ALL SOLD

I now offer a tried herd boar, an excellent individual and breeder, priced where any good farmer can buy him. Also three January boars.

BIG POLAND BOARS

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

Sold Out—More to Sell

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

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

SIX CHOICE SEPTEMBER BOARS

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

Poland China Bred Sows

18 Priced to sell quick. They are the big kind. Also choice spring pigs. A. J. ERHART & SONS, Beeler, Ness County, Kansas.

Hildwein's Big Type Polands

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

POLAND CHINA BOARS

20 Extra Good Fall Boars, ready for service, sired by Big Logan Ex. and Missouri Metal, out of my best sows. Prices reasonable. Write me.

MELBOURNE HERD POLAND CHINAS. Headed by Melbourne Jumbo, one of the large smooth sires of the breed, mated with the best of big-type sows, among them daughters of What's Ex, Big Prospect, Dorr's Expansion 1st, and Union Leader. Stock for sale.

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

CLEMETSON POLAND CHINAS. Headed by Major Zim by Major B sows carrying the blood and mostly daughters of Gold Metal and Model Look by Grand Look. Choice spring pigs, express prepaid, \$18 each until further notice.

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

SELECTED POLAND CHINA BOARS. Five October farrow, strictly tops, the last sons of Mastery, the great Expansive and Mogul bred boar. Dams by Big Tom and Prince O. K. Weight, 225 pounds each; 6 1/2 to 7-inch bone; 43 1/2-inch or more heart girth. Low prices for the kind.

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

Gritter's Surprise Fall Boars For Sale. Two good ones sired by Gritter's Surprise by Long Surprise. Dam of these boars is a Lady Wonder sow of the large Iowa type. They are immune from cholera and priced right. Also a few bred gilts for sale.

ENOS OFFERS 20 BIG, SMOOTH, BRED GILTS. July and August gilts by A. Wonder's Equal by A. Wonder, dams by Nox All Hadley, bred for August and September farrow to the noted Orphan Chief. Blood lines and quality to spare. \$35 to \$40. Only good ones shipped.

OHIO IMPROVED CHESTERS. WOLFE'S O. I. C. SWINE. Large, prolific kind, March and April boars. Gilts bred or open. Fall pigs. Prices low. Pedigrees free. Write your wants.

MAPLE LEAF CHESTERS. Large, smooth and prolific. Our stock and prices are right. Write us your wants. Satisfaction guaranteed.

O. I. C. PIGS. HARRY W. HAYNES, Meriden, Kan. When writing advertisers, please mention Kansas Farmer.

POLAND CHINAS

CLINE'S POLAND CHINAS.

Herd headed by Tinc. Hadley, sired by Major B. Hadley, the grand champion at American Royal, 1911, and Long King's Equal 2d by Long King, two herd boars with size and quality. My fall sale of boars and gilts October 3, 1913. Write for catalog.

225 REGISTERED POLAND CHINAS FOR SALE

Thirty-two sows bred for summer and fall; 20 fall gilts, bred or open; six fall boars, tops from fall crop; 135 spring pigs. Both big and medium type. Sell at reasonable prices with big discounts on several head.

BARGAIN IN HERD BOAR. First Quality, by Blue Valley's Quality. Dam, Blue Valley Ex., by Exception. Three years old and a splendid breeder. Can't use him any longer and will sell him at \$75. Fully guaranteed.

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

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Merten's Big Smooth Poland Chinas. Headed by King Hadley 3d and Kansas Wonder, mated with daughters of Old Expansion, What's Ex, and Grand Look Jr. Stock for sale.

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

PECKHAM HAS GOOD FALL BOARS. Six of September farrow and two spring yearlings. Strong, vigorous fellows, mostly by Blue Valley Goldust, out of large sows. Also 100 spring pigs.

TEN BIG FALL POLAND BOARS. Four by Mogul's Monarch. Two by Long King, son of Long King's Equal. Two by Gephart. Extra good individuals at \$25 each.

WE WILL PAY EXPRESS ON PIGS. Sixty choice Poland China spring pigs at \$20 each for choice, express prepaid, for the next thirty days. Can furnish pairs.

POLAND CHINAS—Choice pigs, both sexes, sired by Guy's Expansion 2d. Cheap for quick sale. L. H. Grote, Morganville, Mo.

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